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

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

Monitoring and eradication programme of TSE, BSE and scrapie

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

Finland

* in accordance with Council Decision 2009/470/EC

Standard requirements for the submission of national programmes of eradication and monitoring of TSEs¹ as referred to in Article 1(c) and Annex III to Commission Decision 2008/425/EC

1. Identification of the programme

Member State: Finland

Disease(s)²: BSE and scrapie

Year of implementation: 2010

Reference of this document: 901/21/2009

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2. Description of the programme

The programme is aimed at monitoring the BSE and scrapie situation in the territory of Finland and eradicating positive cases as well as other animals which may have been infected.

The monitoring for BSE covers the target groups defined in Article 6 paragraph 1a of Regulation 999/2001, taking into consideration Commission Decision 2008/908/EC, whereby Finland is allowed to use a minimum age limit of 48 months in all three target groups.

The monitoring for scrapie covers the target groups defined in Annex III, Chapter A, part II, points 3 and 5, as well as Annex VII, Chapter A, points 3.3(c), 3.4(d) and 5(b)(ii) of Regulation 999/2001. As regards point 3 (ovine and caprine animals not slaughtered for human consumption) the sampling is exceeding the minimal requirements of Regulation 999/2001, in accordance with Commission Regulation 546/2006 where the national scrapie control programme of Finland is approved. According to the national control programme, all ovine and caprine animals above 18 months of age which die on farms in the cadaver collection area will be tested for TSE.

The monitoring is carried out using rapid tests for screening. Inconclusive and positive cases are submitted for confirmatory examination in accordance with Annex X to Regulation 999/2001. Where positive cases are found, eradication measures are implemented in accordance with Annex VII of Regulation 999/2001 (see below).

¹ Bovine Spongiform Encephalopathy (BSE), Scrapie and Chronic Waste Disease (CWD).

² One document per disease is used unless all measures of the programme on the target population are used for the control and eradication of different diseases.

The eradication measures for bovine animals cover:

- 1) Cohorts as defined in Regulation 999/2001,
- 2) Offspring born within two years prior to, or after, the clinical onset of BSE in female animals,
- 3) Other bovines from the same herd as a confirmed BSE case may also be killed if Evvira (Finnish Food Safety Authority) decides that they are at risk of having BSE.

The eradication measures for ovine and caprine animals cover:

- 1) All ovine and caprine animals on farms where classical scrapie has been confirmed. If the infected animal has been introduced from another holding it may be decided, based on the history of the case, to kill the animals in the holding of origin in addition to, or instead of, the holding where the case was confirmed.
- Evvira may decide not to cull animals at holdings with atypical scrapie. Such holdings will be placed under restrictions and all slaughtered or dead animals above 18 months of age will be tested for TSE.
- 2) Based on an epidemiological enquiry, animals on contact holdings where it is considered that these animals have been exposed to the infection.
- 3) In so far as they are identifiable, parents, and in the case of females all embryos, ova and the last progeny.

3. Description of the epidemiological situation of the disease

BSE

So far, only one BSE case has been recorded in Finland. That case was recorded in 2001, in a cow born in Finland in 1995.

OIE has officially recognized Finland's BSE status as category 1, negligible BSE risk.

Scrapie

In total, eight outbreaks of scrapie have been confirmed in Finland as follows:

- 2002: one outbreak of classical scrapie (two holdings, four cases in goats)
- 2004: one outbreak of atypical scrapie (one holding, one case in sheep)
- 2005: two outbreaks of classical scrapie (three holdings, four cases in goats)
one outbreak of atypical scrapie (one holding, one case in sheep)
- 2006: two outbreaks of atypical scrapie (two holdings, two cases in sheep)
- 2007: one outbreak of atypical scrapie (one holding, one case in sheep)

2008: no outbreaks of scrapie

In all outbreaks of classical scrapie, all sheep and goats on the infected farms have been destroyed. Contact farms have been traced and animals at risk have been destroyed.

In the outbreaks of atypical scrapie, all sheep and goats on the infected farms have been destroyed except for one farm in 2006 where Evira decided not to kill the remaining animals but to apply restrictions and intensified testing instead as laid down in Regulation 999/2001.

The Commission approved the national scrapie programme of Finland in 2004 by Regulation 1874/2003, which was later replaced by Regulation 546/2006. According to that programme, all dead-on-farm sheep and goats above 18 months of age in the cadaver collection area must be tested for TSE.

4.

Measures included in the programme

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

Evira (Finnish Food Safety Authority)

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

The programme is applied in the whole territory of Finland.

4.3. System in place for the registration of holdings:

All holdings are registered by the Information Centre of the Ministry of Agriculture and Forestry (TIKE) (Law on a register for rural enterprises, 1515/94)

4.4. System in place for the identification of animals:

All bovine animals must carry ear-tags with identification codes in both ears and are registered in a central bovine database in accordance with Regulation (EC) 1760/2000 and a Commission Regulation (EC) 2629/97. Implementation rules have been given by a Decree of the Ministry of Agriculture and Forestry (1391/2006).

Ovine and caprine animals must be identified and registered in accordance with Council Regulation (EC) No 21/2004. Implementation rules have been given by a Decree of the Ministry of Agriculture and Forestry (469/2005, amended by 356/2008).

4.5. Measures in place as regards the notification of the disease:

All animal TSEs, including BSE and scrapie, are officially notifiable in Finland, as laid down in Decision 1346/1995 of the Ministry of Agriculture and Forestry. Any farmer or veterinarian must notify the competent authority of any signs compatible with TSE in an animal. Specific measures are laid down in the legislation for suspect cases of BSE in bovine animals and scrapie in ovine or caprine animals.

4.6. Monitoring

4.6.1. Monitoring in Bovine Animals

	Estimated Number of tests
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Animals referred to in Annex III, Chapter A, Part I, points 2.1, 3 and 4 of Regulation (EC) No 999/2001 of the European Parliament and of the Council ³	13 000
Animals referred to in Annex III, Chapter A, Part I, point 2.2 of Regulation (EC) No 999/2001	62 000
Others (specify)	

³ OJL 147, 31.5.2001, p. 1.

4.6.2. *Monitoring in Ovine animals*

	Estimated Number of tests
Ovine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) No 999/2001	0
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	1000
Ovine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	950
Ovine animals referred to in Annex VII, Chapter A, point 3.4(d) of Regulation (EC) No 999/2001	100
Ovine animals referred to in Annex VII, Chapter A, point 5(b)(ii) of Regulation (EC) No 999/2001	200
Others (specify other animal species referred to in Annex III, Chapter A, Part III of Regulation (EC) No 999/2001	

4.6.3. Monitoring in Caprine animals

	Estimated Number of tests
Caprine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) No 999/2001	0
Caprine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	350
Caprine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	50
Caprine animals referred to in Annex VII, Chapter A, point 3.3(c) of Regulation (EC) No 999/2001	50
Caprine animals referred to in Annex VII, Chapter A, point 5(b)(ii) of Regulation (EC) No 999/2001	50
Others (specify)	

4.6.4. Discriminatory tests

	Estimated number of tests
Primary molecular testing referred to in Annex X, Chapter C, point 3.2(c)(i) of Regulation (EC) No 999/2001	5

4.6.5. Genotyping of positive and randomly selected animals

	Estimated number of tests
Animals referred to in Annex III, Chapter A, Part II, point 8.1 of Regulation (EC) No 999/2001	5
Animals referred to in Annex III, Chapter A, Part II, point 8.2 of Regulation (EC) No 999/2001	100

4.7. Eradication

4.7.1. Measures following confirmation of a BSE case:

4.7.1.1. Description:

The eradication measures cover:

- 1) Cohorts as defined in Regulation 999/2001,
- 2) Offspring born within two years prior to, or after, the clinical onset of BSE in female animals,
- 3) Other bovines from the same herd as a confirmed BSE case are normally not killed, but in certain cases, where it is considered that these animals are at risk, it may be decided to kill them.

Animals that are killed and destroyed are fully compensated for their market value, as assessed by an independent expert. If property is destroyed based on orders from the competent authority, its value is fully compensated to the farmer. The competent authority may also decide to compensate for production losses, if the farmer gets his main income or a substantial part thereof from animal production.

4.7.1.2. Summary table

	Estimated number
Animals to be killed under the requirements of Annex VII, Chapter A, point 2.1 of Regulation (EC) No 999/2001:	10

4.7.2. Measures following confirmation of a Scrapie case:

4.7.2.1. Description:

The eradication measures cover:

- 1) All ovine and caprine animals on farms where scrapie has been confirmed. If the infected animal has been introduced from another holding it may be decided, based on the history of the case, to kill the animals in the holding of origin in addition to, or instead of, the holding where the case was confirmed.
Evira may decide not to cull animals at holdings with atypical scrapie.
- 2) Based on an epidemiological enquiry, animals on contact holdings where it is considered that these animals have been exposed to the infection.
- 3) In so far as they are identifiable, parents, and in the case of females all embryos, ova and the last progeny.
Animals that are killed and destroyed are fully compensated for their market value, as assessed by an independent expert. If property is destroyed based on orders from the competent authority, its value is fully compensated to the farmer. The competent authority may also decide to compensate for production losses, if the farmer gets his main income or a substantial part thereof from animal production.

4.7.2.2. Summary table

	Estimated number
Animals to be killed under the requirements of Annex VII, Chapter A, point 2.3 of Regulation (EC) No 999/2001:	200
Animals to be genotyped under the requirements of Annex VII, Chapter A, point 2.3 of Regulation (EC) No 999/2001:	0

4.7.3. Breeding programme for resistance to TSEs in sheep

4.7.3.1. General description⁴:

Finland does not have a breeding programme in place.

4.7.3.2. Summary table

⁴ Description of the programme according to the minimum requirements set out in Annex VII, Chapter B of Regulation (EC) No 999/2001.

	Estimated number
Ewes to be genotyped under the framework of a breeding programme referred to in Article 6a of Regulation (EC) No 999/2001	
Rams to be genotyped under the framework of a breeding programme referred to in Article 6a of Regulation (EC) No 999/2001	

5.

Costs

5.1. Detailed analysis of the costs:

BSE monitoring

All bovines are screened by BioRad TeSeEe. The price of the test materials is 5 € per test.

Scrapie monitoring

Each sample from ovine and caprine animals selected for monitoring is screened with BioRad TeSeEe Sheep and Goat. Two samples (brainstem and cerebellum) are tested separately for each animal. The price of the test materials is 5 € per test and 10 €/two tests for each animal.

Inconclusive and positive results are submitted for confirmatory testing. If the final test result is positive, a discriminatory test is carried out by immunoblot. The cost of the primary discriminatory testing is 125 € per sample.

Genotyping

Genotyping is carried out by direct sequencing of the amplified PrP open reading frame. The direct costs are 13,15 € per test, including sample tubes and reagents used in DNA purification, PCR and sequencing (sequencing costs include also polymer, capillaries, buffer and plastic consumables).

Compulsory slaughter and destruction

Each animal is compensated according to its market value, as assessed by an independent expert. The average market value of bovine animals is 1000 € and the average market value of sheep and goats is 200 €.

5.2. Summary of the costs

<i>Costs related to</i>	<i>Specification</i>	<i>Number of units</i>	<i>Unitary cost in EUR</i>	<i>Total amount in EUR</i>	<i>Community funding requested (yes/no)</i>
1. BSE testing⁵					
1.1. Rapid tests	Test: BioRad TeSeE	75 000	5	375 000	yes
	Test:				

⁵ As referred to in point 4.6.1.

	Test:					
2. Scrapie testing⁶						
2.1. Rapid tests	Test: BioRad TeSeE Sheep and Goat	2750	5	13 750	yes	
	Test:					
	Test:					
3. Discriminatory testing⁷						
3.1. Primary molecular tests	Test: Immunoblot	5	125	625	yes	
	Test:					

6 As referred to in points 4.6.2 and 4.6.3.
7 As referred to in point 4.6.4.

4. Genotyping						
	Method	Direct sequencing of the amplified PrP open reading frame	105	13,15	1381	yes
4.1.	Determination of genotype of animals in the framework of the monitoring and eradication measures laid down by Regulation (EC) No 999/2001 ⁸					
4.2.	Determination of genotype of animals in the framework of a breeding programme ⁹	Method	0			no
5. Compulsory Slaughter						
5.1.	Compensation for bovine animals to be killed/slaughtered under the requirements of Annex VII, Chapter A, point 2.1 of Regulation (EC) No 999/2001		10	1000	10 000	yes
5.2.	Compensation for ovine and caprine animals to be killed/slaughtered under the requirements of Annex VII, Chapter A, point 2.3 of Regulation (EC) No 999/2001		200	200	40 000	yes
<i>TOTAL</i>					440 756	yes

⁸ As referred to in points 4.6.5 and 4.7.2.2.

⁹ As referred to in point 4.7.3.2.