



EUROPEAN COMMISSION
HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Director General

SANCO/10626/2013

*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**

Cyprus

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

* in accordance with Council Decision 2009/470/EC

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

1. Identification of the programme

Member state : KYPROS

Disease : Transmissible Spongiform Encephalopathies

Request of co-financing for the year :

2013

1.1 Contact

Name : Alexandros Koni

Phone : +357 22805299

Fax. : +357 22805176

Email : akonis@vs.moa.gov.cy

2. Description of the programme

(max. 32000 chars) :

Monitoring in bovine animals

The objective of the programme in bovines is the implementation of the surveillance programme for BSE as laid down in ANNEX III, Chapter A, (I) of Regulation 999/2001 as amended.

Brain samples for BSE testing are taken from all bovines of the following groups:

- bovines exhibiting clinical signs of neurological disease
- dead animals over the 48 months of age
- normal slaughtered animals for human consumption over 72 months of age
- emergency slaughtered animals over 48 months of age
- animals over 48 months of age with clinical signs at ante-mortem

The objectives of the programme in small ruminants are:

- a. To implement a TSE monitoring and surveillance programme as laid down in Reg. (EC) 999/2001
- b. To identify all scrapie infected flocks
- c. To implement a breeding programme for TSE resistance in the entire sheep and goat population, which is considered an essential tool to combat the disease
- d. To implement in conjunction with the breeding programme, a solid identification system by means of

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

electronic ID, which is a prerequisite for the effective control of the breeding programme and of the movements

The main elements of the programme are:

- a) The regular inspections of all flocks
- b) Individual identification of all animals by means of ruminal boluses and eartags
- c) The movement restrictions for infected flocks with the exception of on-movements to infected flocks of ARR/ARR rams or of ARR/ARR or ARR/AXX ewes or off-movements of ARR/ARR animals.
- d) The confiscation, killing and destruction of animals with suspect clinical symptoms and compensation of the farmers.
- e) The testing of confiscated suspect animals in accordance to point 3.2 of Chapter C of ANNEX X to Regulation (EC) 999/2001.
- f) The examination of fallen stock and healthy slaughtered animals by rapid test with the exception of ARR/ARR
- g) The genotyping of the lambs intended for breeding
- h) The obligatory use of ARR/ARR rams for all flocks in order to gradually replace the animals with susceptible genotypes with animals of the resistant genotype ARR/ARR or with animals bearing at least one ARR allele and no VRQ allele.
- i) The genotyping of all kids to be born in 2013 focusing at codons 146 and 154 of the goat PrP protein gene.
- j) The governmental nucleus units will continue to provide the farmers with ARR/ARR rams or 146S or 146D he-goats.

3. Description of the epidemiological situation of the disease

(max. 32000 chars) :

BSE

The bovine holdings in Cyprus are currently 327 and the animal population counts 57321 animals. About 14642 bovines are over the 48 months of age and 6296 are over the 72 months of age.

BSE has never been diagnosed in Cyprus so far. During the years 2001 to 2011, more than 76000 animals have been examined with rapid tests, all with negative results.

SCRAPIE

The disease was first diagnosed in Cyprus in 1985 in sheep and in 1986 in goats. Since then 1035 flocks were found positive.

Since 1985, a number of infected flocks have been culled or closed down.

Currently, 720 infected flocks are still active.

For additional information please refer to the attached file.

4. Measures included in the programme

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

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

(max. 32000 chars) :

According to "the implementation of Community Regulations in the Veterinary field Law No. 149(I) 2004" Official Competent Authority responsible for the organization, implementation and monitoring of the programme are the Veterinary Services of The Ministry of Agriculture, Natural Resources and Environment.

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

(max. 32000 chars) :

The TSE monitoring and control programme will be applied over the entire area of the Republic of Cyprus, which is under the effective control of the Government of Cyprus.

4.3 System in place for the registration of holdings

(max. 32000 chars) :

All the holdings of bovine, ovine and caprine animals are registered in the electronic Database of the Animal Identification and Registration Scheme.
Information regarding a holding including its geographical coordinates is recorded.
All premises, even with only one animal, are uniquely registered. The system in place for the registration of the holdings and the codification used is as follows:

CYS1234567 (for sheep and goats)

CYB1234567 (for bovines)

Where

CY= Country code

S = applies for holdings with sheep or goats B = applies for holdings with bovines

1 = District code (Values from 1-6)

234= together with the district code builds the geographical code of the village or area where the holding is located

567= a consecutive number beginning from 001 to 999

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

4.4 System in place for the identification of animals

(max. 32000 chars) :

The Animal Identification and Registration Scheme foresees the individual identification of all animals, bovines, ovines or caprines.

A full functioning web-enabled electronic Database is in place.

All bovine animals according to Regulation 1760/2000/EC and all sheep and goats in compliance with the provisions of Regulation 21/2004, are individually identified, registered and recorded in the computerized database.

The bovine animals are identified with plastic eartags on both ears. Sheep and goats are identified by a ruminal bolus and plastic eartags where this is possible according to the size of the pinna. The identification of sheep and goats is carried out by the personnel of the Veterinary Services.

The eartag code is of the following format:

CY2 12345678

CY = Country code

2 = The first digit following the country code represents the animal kind. The digit 2 as in our example represents a small ruminant thus a sheep or a goat. The digit 1 instead represents a bovine animal.

234567= a consecutive number

8 = check digit (calculated by a formula)

The ruminal boluses bear the country code (196) followed by 0's up to the last 8 digits of the code which follow the code format described above. Each ruminal bolus is packed together with the corresponding eartag, on which the last 8 digits of the relevant ruminal bolus is printed, plus the check digit as described above.

The 20gr boluses are used for both lambs and kids. They can be applied to lambs as from the age of 35-40 days and to kids as from the age of 55 - 60 days.

4.5 Measures in place as regards the notification of the disease

(max. 32000 chars) :

According to the Animal(s) Health Law 109(I) 2001, Article 6, it is compulsory for every one to report without any delay to the official Veterinary Services or to the nearest Police Station the suspicion of BSE or Scrapie.

In Cyprus BSE is a notifiable disease since June 1990 and Scrapie since 1987.

In the case of notification the official competent authority immediately applies all the foreseen by the law measures and also any other measures that are considered as necessary.

During their regular visits to the farms, the Veterinary Officers pay special attention to identify animals with suspect TSE signs.

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

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	1 000	1 000	
Animals referred to in Annex III, Chapter A, Part I, point 2.2 of Regulation (EC) No 999/2001	72	3 000	3 000	
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 .

253 000

	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	0	
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	1 500	
Ovine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	500	
Ovine animals referred to in Annex VII, Chapter A, point 2.3(d) of Regulation (EC) No 999/2001	1 000	
Ovine animals referred to in Annex VII, Chapter A, point 3.4(d) of Regulation (EC) No 999/2001	0	
Ovine animals referred to in Annex VII, Chapter A, point 4(b) and (e) of Regulation (EC) No 999/2001	15 000	
Ovine animals referred to in Annex VII, Chapter A, point 5(b)(ii) of Regulation (EC) No 999/2001	1 000	
Other please specify here		X
Add a new row		

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

4.6.3 Monitoring in caprine animals

Estimated population of female goats and female kids mated .

212 000

	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	0	
Caprine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	1 500	
Caprine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	500	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 2.3(d) of Regulation (EC) No 999/2001	2 000	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 3.3(c) of Regulation (EC) No 999/2001	0	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 4(b) and (e) of Regulation (EC) No 999/2001	20 000	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 5(b)(ii) of Regulation (EC) No 999/2001	1 000	
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	5
Confirmatory tests in Ovine and Caprine animals	1 500

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	250	

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

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	0	
Animals referred to in Annex III, Chapter A, Part II, point 8.2 of Regulation (EC) No 999/2001	0	

4.7 Eradication

4.7.1 Measures following confirmation of a BSE case

4.7.1.1 Description

(max. 32000 chars) :

In the case where an animal is proven to be positive to BSE by laboratory examination:

- All parts of the body of the animal, which has been sampled, must be completely destroyed.
- A thorough epidemiological investigation is carried out to identify all animals at risk.
- All animals and products of animal origin that have been identified as being at risk must be killed and completely destroyed by incineration.
- Decontamination procedures will be undertaken on any materials and equipment that came in contact with slaughtered animals

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	1	

4.7.2 Measures following confirmation of a scrapie case

4.7.2.1 Description

(max. 32000 chars) :

In the case of TSE suspicion in sheep and goats or where an animal is proven to be positive to Scrapie by laboratory examination, the following measures are applied by the Veterinary Services to the holding of origin of the positive animal:

- the holding is placed under movement restrictions,
- the trade of animals for the aims of reproduction is only allowed for the categories of animals as laid down under Point 2.5. Chapter A of Annex VII to Reg. (EC) 999/2001,
- a written notification is given to the farmers about the applied restrictions on the holding
- an analytical epidemiological investigation is carried out in order to detect the possible source of infection and an eventual spreading of the disease,

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

- suspect animals are confiscated and their market value is estimated
- confiscated suspect animals are killed, sampled and forwarded to the incinerator for complete destruction
- primary molecular tests are carried out according to the provisions of Chapter C of Annex X to Reg. (EC) 999/2001 as amended
- frequent inspections of the affected units are then carried out by the Veterinary Services for the early detection of suspect scrapie affected animals
- the Veterinary Services include the farm in the list of priority to provide it with ARR/ARR rams or 146S or 146D he-goats from the nucleus units as soon as such animals are available.

4.7.2.2 Summary table

	Estimated number	
Animals to be culled and destroyed under the requirements of Annex VII, Chapter A, point 2.3 of Regulation (EC) No 999/2001	5 000	
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	5 000	
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 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) :

The PrP-genotyping of lambs intended for breeding and of kids will be continued also in 2013. Aim of the programme is to apply selective breeding for resistance in the flocks and increase the frequency of the ARR allele within the ovine population in Cyprus and the frequency of the 146S or 146D allele in the goat population.

The Ministerial Order 545/2005 issued on the 2nd of December 2005 provides for the genotyping of all ovine animals over 35 days of age intended to remain in the flock for breeding purposes. It also provides for the Electronic Identification of the genotyped animals.

The Ministerial Order 44/2008 amending the Order 545/2005 provides after the 1st of July 2008 for exclusive use for breeding purposes only of ARR/ARR rams in all farms with ovine animals.

The breeding for resistance is compulsory for all flocks with ovine animals.

Since 2004 more than 700,000 ovine animals have been genotyped thanks to the financial contribution of the Community approved by the European Commission for that purpose.

The determination of the PrP-genotype of all the young ovine animals on the farms will provide the Veterinary Services and the farmers the possibility to select the resistant and productive animals for breeding and for the substitution purposes in the flock.

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

A small scale genotyping programme covering 30,000 animals and cofinanced by the European Union was applied in 2004. Flocks were selected according to the numbers of resistant rams received.

The aim of this selection was to identify as many ARR/ARR animals as possible so that they could be introduced in other flocks with scrapie. Because the capacity of the two nucleus units was relatively limited and the demand for ARR/ARR rams very high, the genotyping programme of 2004 was planned so to help in the direction of creating other private nucleus units. The identification of as many ARR/ARR rams as possible facilitated an exchange of these animals between the flocks. This exchange of rams between flocks helped to avoid possible inbreeding.

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)	200 000
Rams to be genotyped under the framework of a breeding programme referred to in Article 6a of Regulation (EC)	0

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

5. Costs

5.1 Detailed analysis of the costs

(max. 32000 chars):

In 2013 it is estimated that about 4000 bovine animals will be tested with a rapid test with a unitary cost per test of 8,5 euro. In sheep and goats , it is estimated that about 44000 tests will be carried out with a unitary cost of 17 euro per test. The confirmatory test IHC it is estimated that will be performed in 1500 cases of sheep and goats in a unitary cost of 15 euro per test. The Primary molecular tests on index cases and additional cases in 2013 will be approx. 250 with a unitary cost of 175 Euro. The breeding programme will cover both sheep and goats. In sheep, it will cover the lambs to be born in 2013, which will be kept for breeding. In goats the programme will cover all kids to be born in 2013, so as to allow a faster selection towards the resistant genotypes. It is estimated that about 80000 lambs and 120000 kids will be tested at a unitary cost of 7 euro.

As regards the confiscation of bovine animals, even though it is actually not expected to have a positive BSE case, we would suggest to allocate an amount of 25000 Euro in the case an emergency occurs.

In sheep and goats, it is estimated that about 10000 animals will be confiscated. The numbers include animals with suspect clinical symptoms and animals with susceptible genotypes.

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

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	4 000	8.5	34000 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	44 000	17	748,000 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	Immunohistochemistry	5	15	75 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	Immunohistochemistry	1 500	15	22500 yes		X
				Add a new row		

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

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 WB	250	175	43750 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)	NA	0	0	0 no		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)	NA	200 000	7	1,400,000 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 4.7.12)	Although not expected to have a positive case, 25000 should be allocated as a precaution	1	25000	25000 yes		X
				Add a new row		

Standard requirements for the submission of programmes of eradication and monitoring of TSE

version : 2.21

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)	Suspect sheep and goats	5 000	130	650,000	yes
				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)	NA	5 000	130	650,000	yes
				Add a new row	
Total				3 573 325,00 €	

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.
- 3) The total file size of the attached files should not exceed 2 500Kb (+- 2.5 Mb). You will receive a message while attaching when you try to load too much.
- 4) IT CAN TAKE **SEVERAL MINUTES TO UPLOAD** ALL THE ATTACHED FILES. Don't interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
- 5) Zip files cannot be opened (by clicking on the Open button). All other file formats can be opened.

*Standard requirements for the submission of
programmes of eradication and monitoring of TSE*
version : 2.21

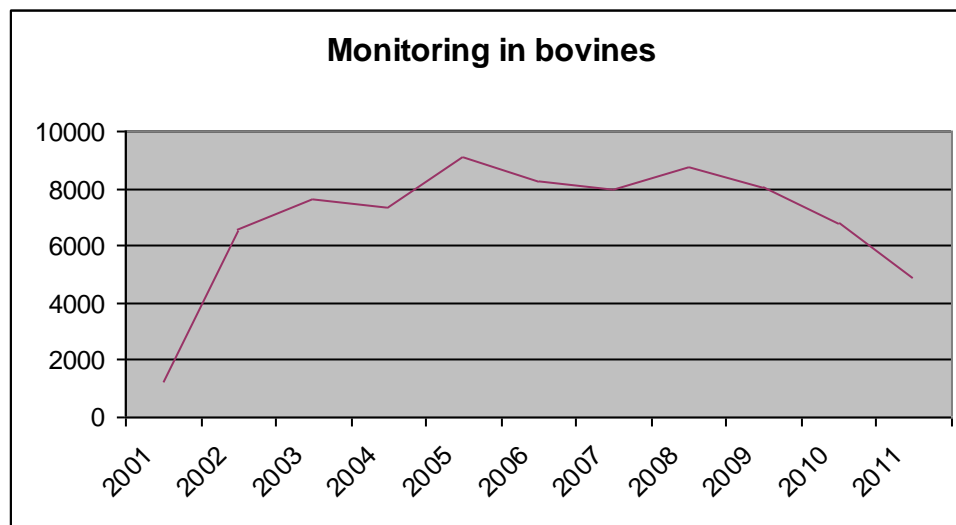
EPIDEMIOLOGICAL DATA

BOVINES

Since 2001, more than 76,000 animals have been tested with rapid tests according to the monitoring programme laid down in Annex III, Chapter A, (I) of Regulation 999/2001 as amended. No BSE case has ever been detected in Cyprus.

Figure 1, displays the number of tested animals per year. The decrease of the number of tested animals during 2011 is due to the fact that since July 2011, Cyprus has been applied a revised monitoring programme according to the Decision 2011/358/EC .

Figure 1: Monitoring in bovines



SHEEP & GOATS

Since 1985, 1035 scrapie outbreaks were diagnosed. The majority of the outbreaks were in mixed flocks (sheep and goats). The distribution of the new outbreaks per year and farm kind is presented in Figure 2. In 2002, 2003, 2004 and 2005 an abrupt increase in the number of outbreaks was observed. The increase in the number of outbreaks diagnosed was the outcome of:

- Good epidemio-surveillance system implemented by VS
- The decision of the VS to provide rams from the nucleus units only to infected flocks.

Figure 2: New outbreaks per year and farm category

As a result of the breeding program which is applied on all flocks rearing sheep in Cyprus since 2004, and the significant improvement of the resistance in sheep, the number of the new outbreaks in OVI flocks and O/C flocks has a declining tendency (Figure 3). In 2011, the number of the new outbreaks in CAP herds has also shown a declining tendency, probably related to the implementation of a breeding programme for resistance in the goats of Cyprus since 2009.

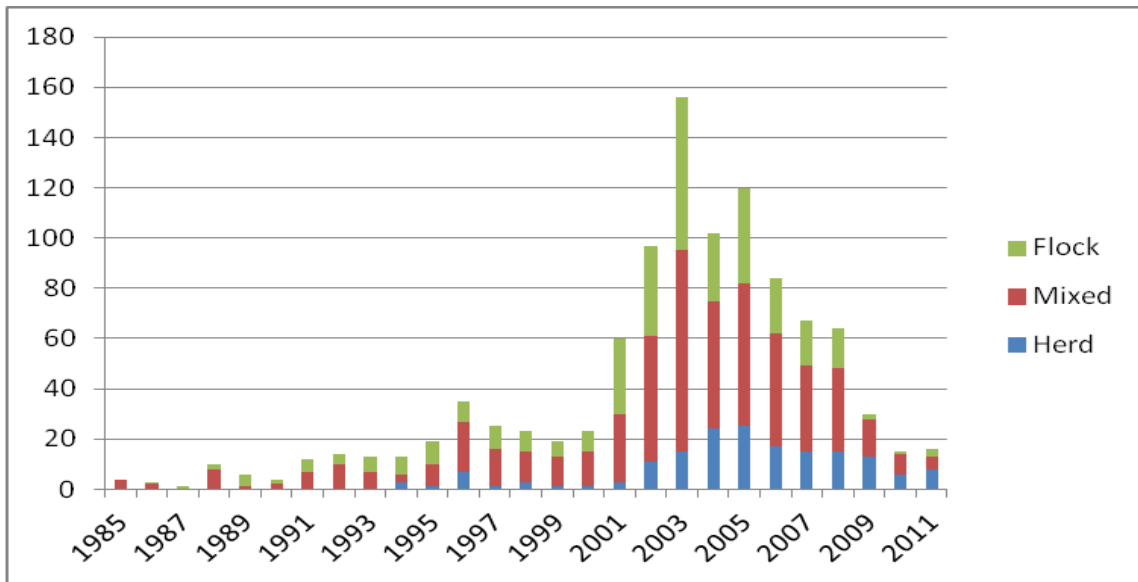
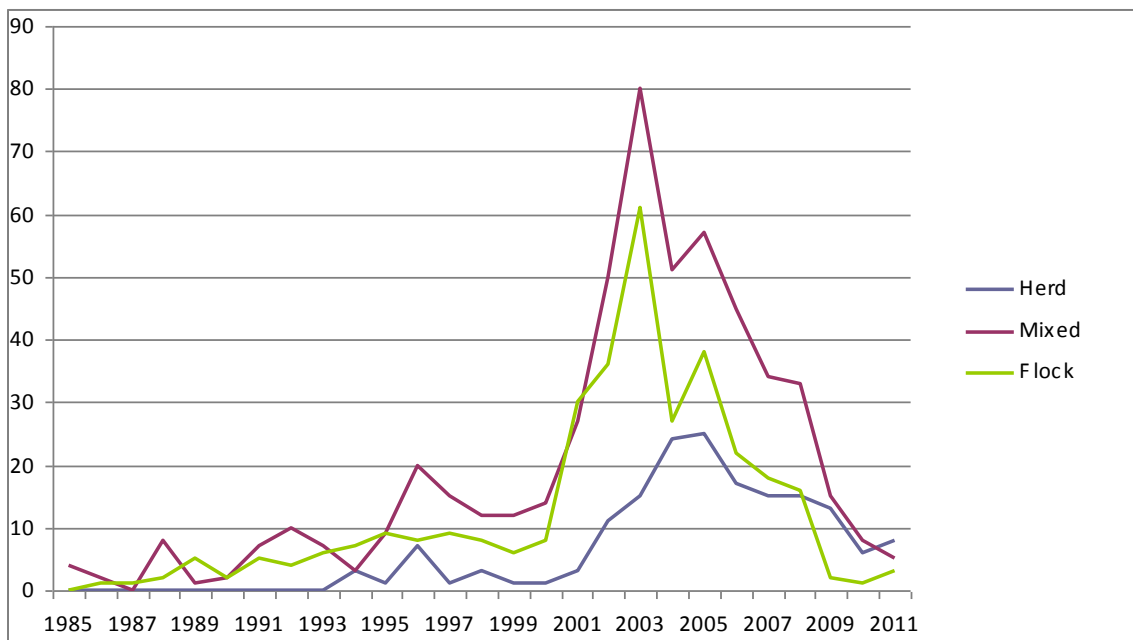


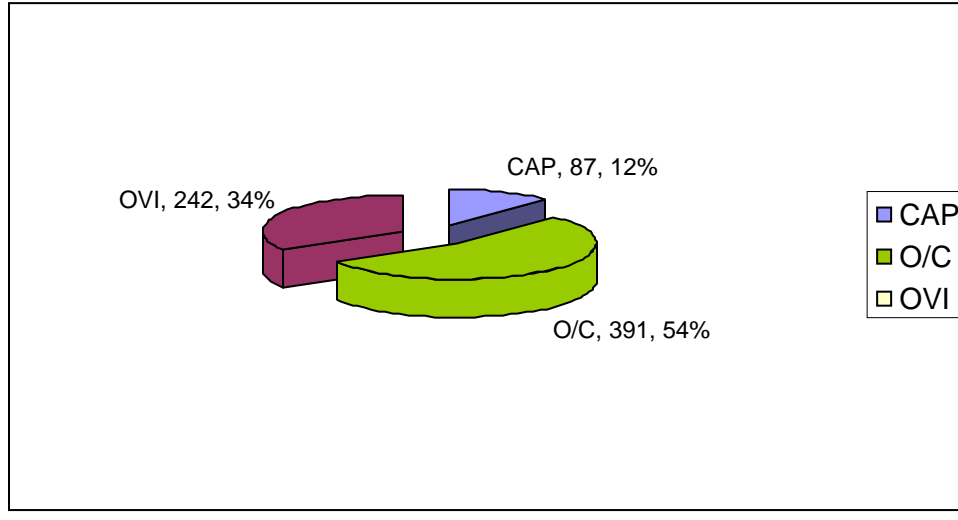
Figure 3: Trend of new outbreaks per farm kind



Currently, there are 720 scrapie infected flocks, which are still in operation. These flocks represent the 22.6 % of the total active sheep and goats flocks. These figures are

permanently changing since there are infected flocks closing down and there are also new outbreaks which are added to the known infected flocks. Figure 4, presents the number and the proportion of the active scrapie infected flocks according to their farm kind.

Figure 4: All currently active infected flocks



Figures 5 and 6 present the situation as regard the confiscation of animals. Since 2009, the confiscated animals comprise of animals with suspect clinical signs and of animals that cannot be slaughtered for human consumption either because of their PrP genotype or their age. As a result of the implementation of the breeding programme for resistance in sheep, the number of confiscated animals is permanently declining. On the contrary, the number of confiscated goats is rising, not because mainly an increase in the suspect cases is observed but moreover due to the prohibition of slaughtering for human consumption of the animals from scrapie infected flocks, which are older than 3 months of age.

Figure 5: Number of confiscated animals per year

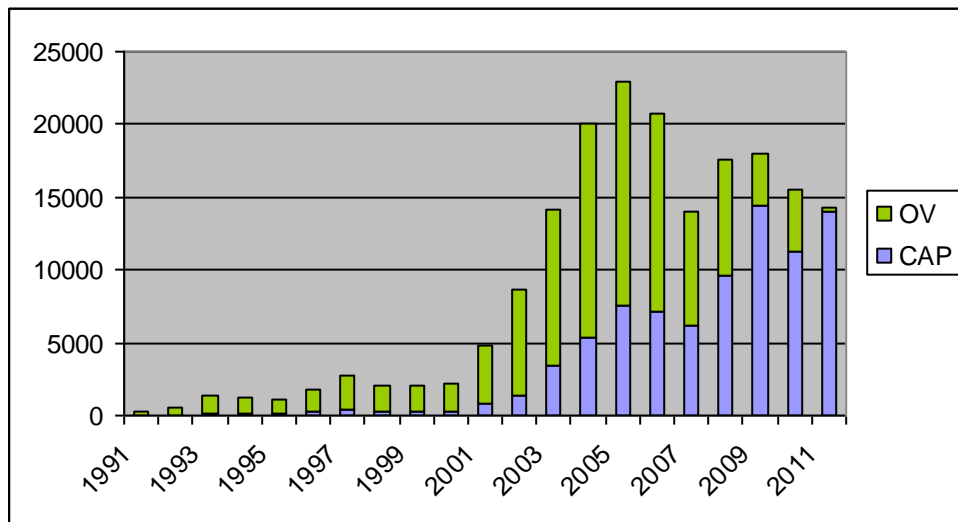
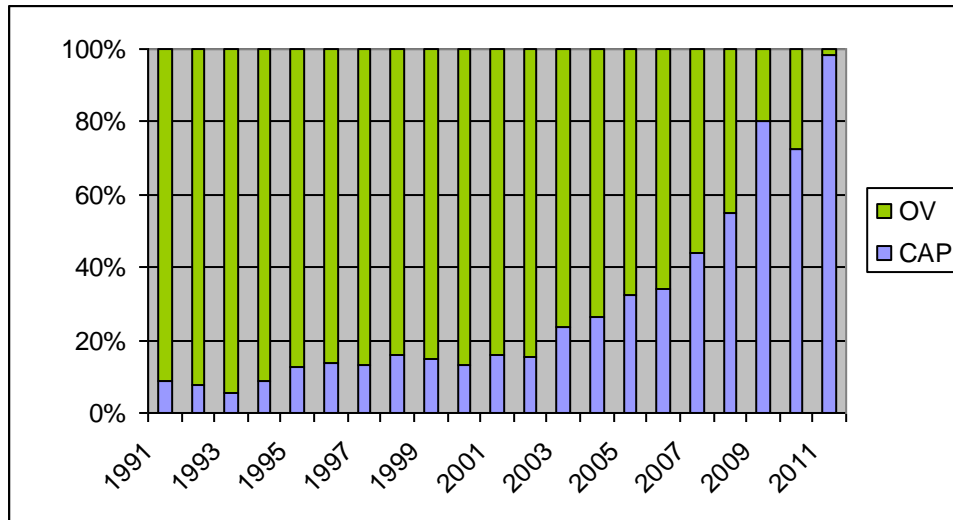


Figure 6: Trend of confiscations per animal kind



As regard the breeding programme for TSE resistance in sheep, out of 615 active infected flocks with sheep, 597 are classified in the Cat II (using only ARR/ARR rams), 4 are classified as Cat I (all animals are with ARR/ARR genotype) and 14 are Cat III (Figure 7). Rams other than ARR/ARR are either castrated and sent for slaughter (if bearing 1 ARR allele) or confiscated and culled.

Figure 7: Categorization for TSE resistance in infected flocks

