



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

SANCO/10364/2009

*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

Cyprus

* in accordance with Council Decision 2009/470/EC

ANNEX III

Standard requirements for the submission of programmes of eradication and monitoring of TSEs¹ co-financed by the Community

1. Identification of the programme

Member State: **CYPRUS**

Disease(s)²: **TSE's (BSE and SCRAPIE)**

Year of implementation: **2009 and 2010**

Reference of this document: **3/2003/10**

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Date sent to the Commission: **30/04/2009**

2. Description of the programme

BSE

The objective of the programme is the implementation of the surveillance programme for BSE as laid down in Regulation 999/2001 as amended.

Samples are taken from all bovines of the following groups:

- bovines exhibiting clinical signs of neurological disease
- fallen stock of over 24 months of age
- normal slaughtered animals for human consumption over 30 months of age
- emergency slaughtered animals over 24 months of age
- animals with clinical signs at ante-mortem

¹ Bovine Spongiform Encephalopathy (BSE) and Scrapie

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 following table displays the number of rapid tests performed in previous years.

Table 1: Number of rapid tests performed by the Veterinary Services in previous years

| YEAR | NORMAL SLAUGHTER | WITH CLINICAL SYMPTOMS AT ANTE-MORTEM | EMERGENCY SLAUGHTER | FALLEN STOCK | BSE SUSPECT | TOTAL |
|------|------------------|---------------------------------------|---------------------|--------------|-------------|-------|
| 2001 | 2996 | 0 | 58 | 177 | 0 | 3231 |
| 2002 | 5678 | 0 | 104 | 900 | 0 | 6682 |
| 2003 | 6401 | 22 | 135 | 1168 | 0 | 7726 |
| 2004 | 5888 | 39 | 137 | 1287 | 0 | 7351 |
| 2005 | 7749 | 9 | 148 | 1187 | 0 | 9093 |
| 2006 | 6829 | 2 | 140 | 1267 | 0 | 8238 |
| 2007 | 6743 | 0 | 149 | 1069 | 0 | 7961 |
| 2008 | 7481 | 0 | 88 | 1188 | 0 | 8757 |

SCRAPIE

The Scrapie eradication programme of the Veterinary Services (Scrapie Control Scheme) is applied since 1987, two years after Scrapie was first diagnosed in Cyprus. The main elements of the programme are:

- a) The regular inspections of all sheep and goats flocks
- b) The obligation of every farmer to notify every suspected case
- c) Individual identification (Eartags) of all animals

The Veterinary Services individually identify all ovine and caprine animals with plastic eartags on both ears. Since 2005 Electronic ID by means of a ruminal bolus has been introduced in almost the entire ovine population in relation to genotyping for the implementation of a breeding programme for scrapie resistance.

The Electronic ID is expected to be expanded in 2009 to caprine animals in the framework of a national experimental breeding programme for resistance in goats, based on the results of the relevant Pilot project of the Veterinary Services which was cofunded by the European Commission.

- d) 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.

- e) The confiscation, killing and destruction of animals with clinical symptoms or sheep with sensitive genotypes and compensation of the farmers.
- f) The testing of confiscated suspect animals is according to point 3.2 of Chapter C of Annex X to Regulation (EC) 999/2001.
- g) The examination of fallen stock and healthy slaughtered animals with Rapid test.
- h) The genotyping of the entire ovine population in Cyprus intended for breeding.
- i) The use of ARR/ARR rams is obligatory for all flocks in order to gradually replace the animals with animals of the resistant genotype ARR/ARR or with animals bearing at least one ARR allele.
- j) The genotyping of the entire goat population focusing at codons 146, 154 and 222 of the goat PrP protein gen.

The introduction of ARR/ARR rams from the nucleus units in the flocks with the priority given to the infected flocks, led to an increase in the presence of the ARR allele in the ovine population.

The sensitive animals are gradually replaced by animals of the resistant genotype ARR/ARR or from animals bearing one ARR allele.

As a similar measure to the programme implemented in sheep, the target is to manage to provide all goat flocks with male animals whose PrP gene encodes the amino acids Serine or/and Aspartic acid at Codon 146. The genotyping of the entire goat population will enable us to realise the target.

The aim of the programme that will be applied in 2009 and 2010 is to control scrapie through implementation of breeding for resistance in both sheep and goats. The creation of resistant populations will minimize the risk of reinfection of the animals especially in the case of a solution of the political problem in Cyprus.

Although it is important to apply the breeding programme in order to combat scrapie, the need to create an embryo cryobank for conservation of susceptible genotypes and endangered breeds is now of immense importance.

3. Description of the epidemiological situation of the disease

BSE

The bovine holdings in Cyprus are 351 and the animal population counts 54699 animals. A total of around 28800 bovines are over 24 months of age.

BSE has never been diagnosed in Cyprus so far. From 2001 to 2008, almost 60 thousand (59039) animals have been examined, all with negative results.

SCRAPIE

The disease was first diagnosed in Cyprus in 1985. Since then 987 flocks were found positive.

Since 1985, 270 of the infected flocks have been culled or closed down. Currently, 717 infected flocks are still active..

On figures 1 ~ 5, an attempt will be made, to give an overview of the scrapie situation in Cyprus on flock level.

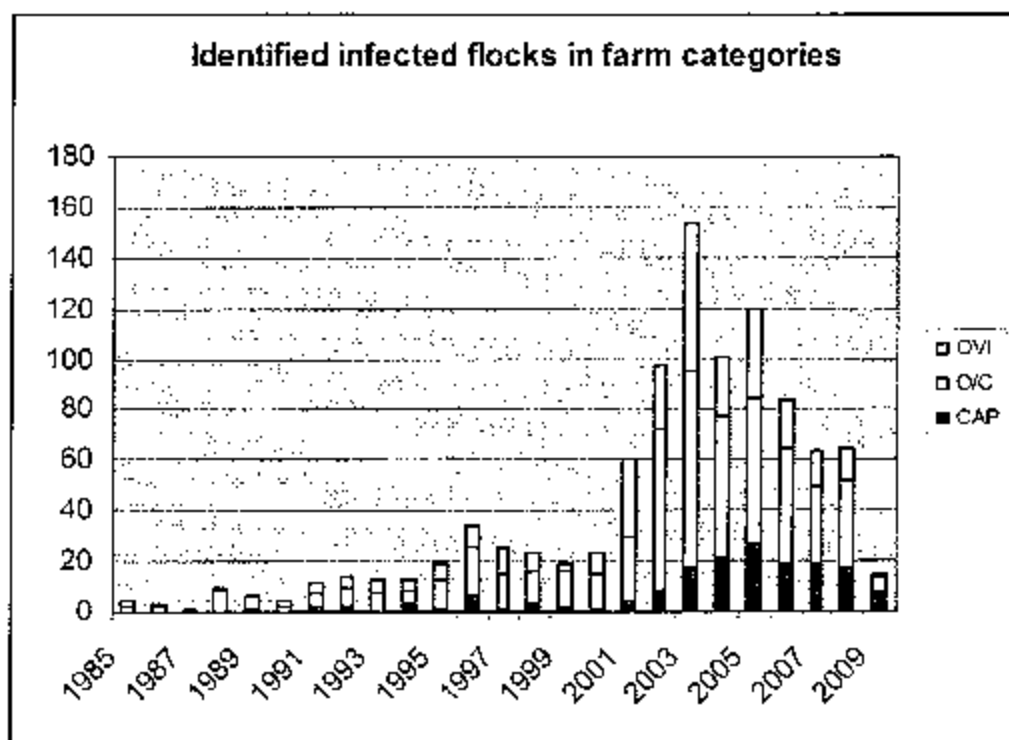


Figure 1: Identified new outbreaks per year and farm category

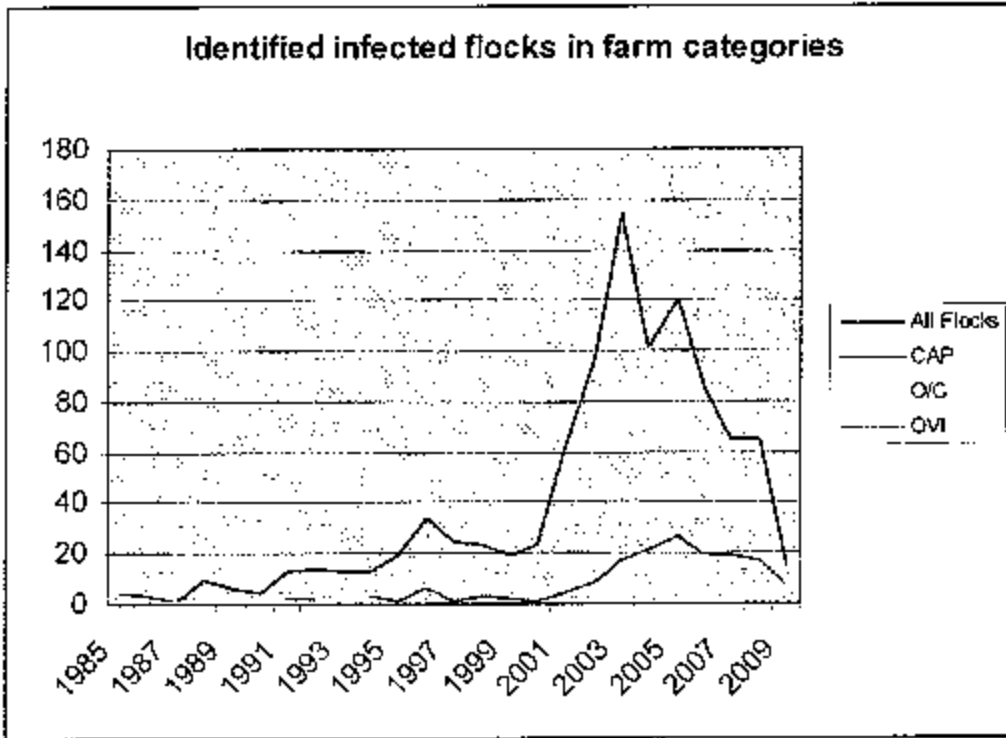


Figure 2: Identified new outbreaks per farm category and as total

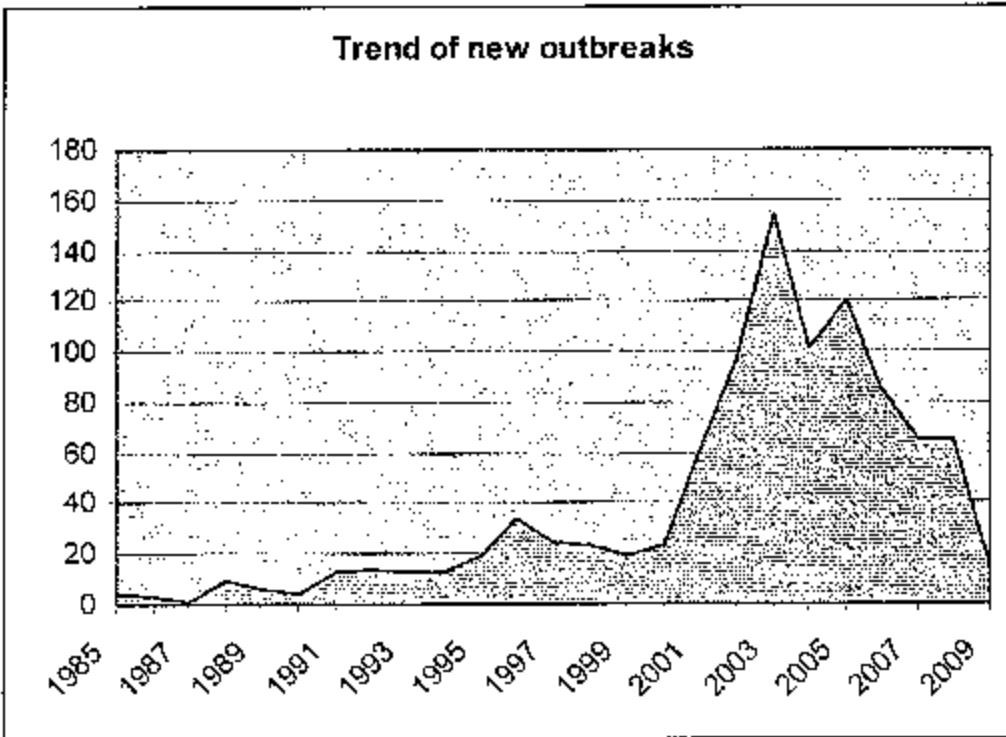


Figure 3: Trend of incidence in flocks per year

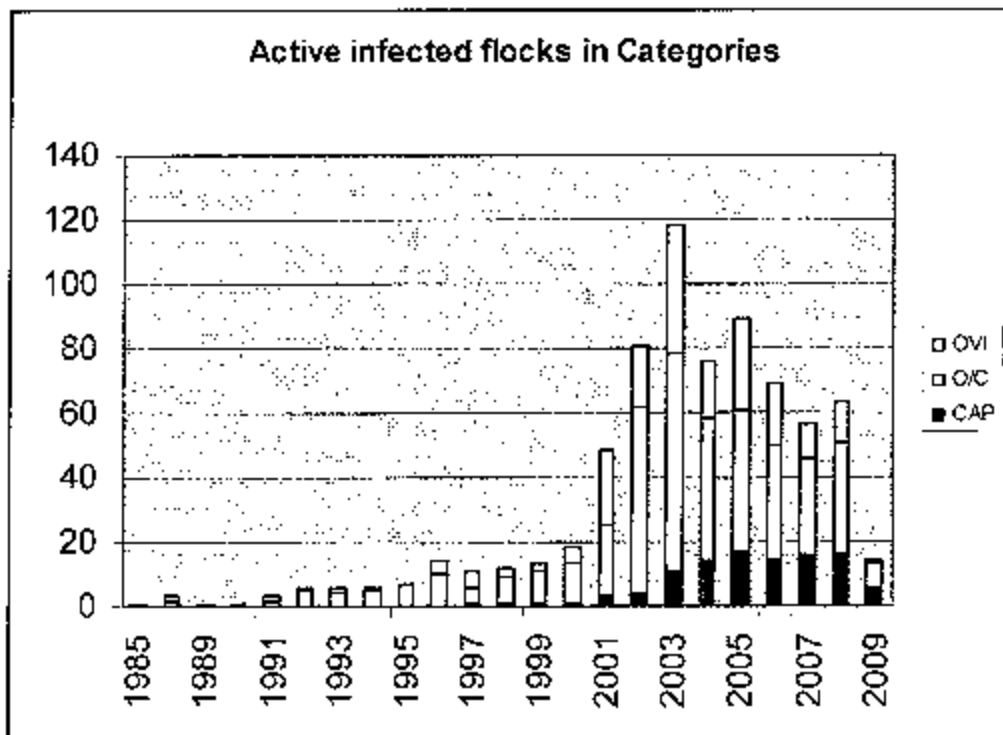


Figure 4: Infected flocks in operation per farm category and year of first case

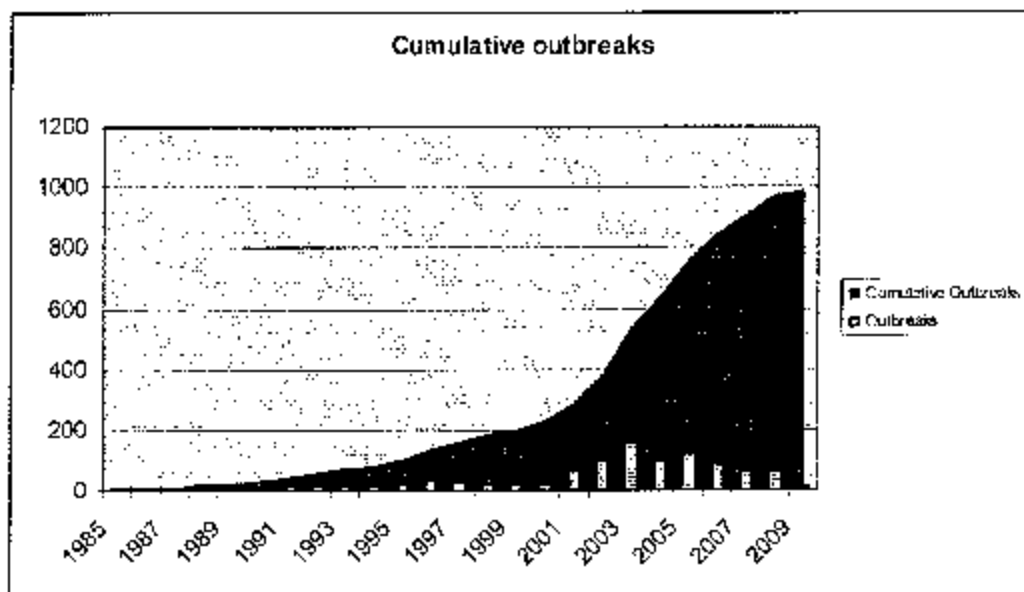


Figure 5: Cumulative incidence of scrapie outbreaks related to the new outbreaks per year

Figures 6 & 7 display the situation over the years as regards suspect animals that have been confiscated and destroyed.

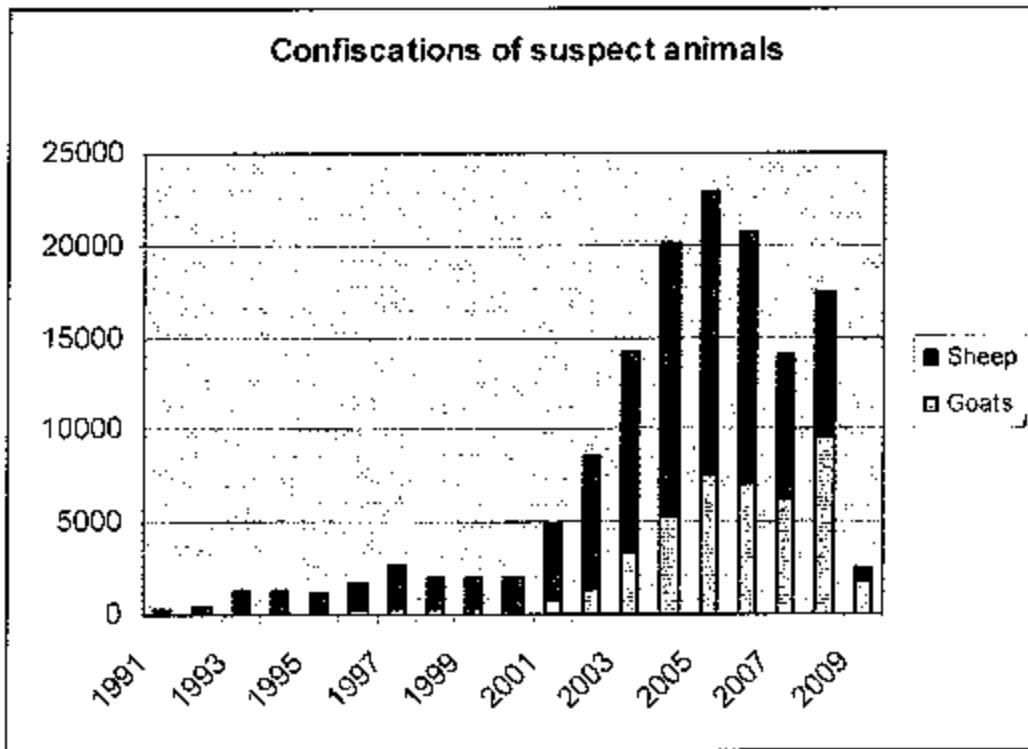


Figure 6: Confiscations of suspect animals per year

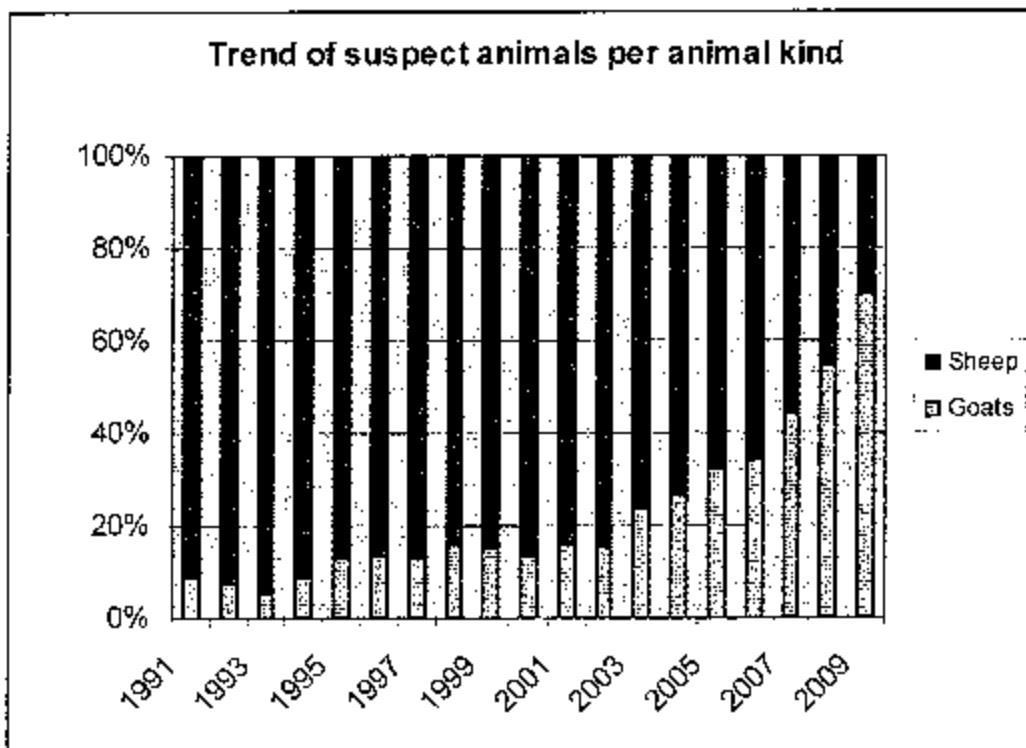


Figure 7: Proportion of confiscated animals per animal kind and year.

In Figure 7, a clear trend is observed, whereby the proportion of goats among the confiscated suspect animals is raising whereas the proportion of sheep is declining. The declining trend in sheep is related to the favourable trend in the increase of the resistant genotypes in the sheep population as a result of the compulsory breeding programme.

4. Measures included in the programme

- Testing of bovine, ovine and caprine animals as specified in Regulation (T.C) 999/2001
- Notification of any suspect case
- Restriction of movements from and to the infected holding
- Intensive epidemiological investigation
- Implementation of all provisions of Regulation 999/2001
- Feed sampling and examination for the presence of animal proteins
- Removal and destruction of Specified Risk Material
- Implementation of resistance breeding programme

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

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:

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 official authority of the country.

4.3. System in place for the registration of holdings:

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 it's 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

4.4. System in place for the identification of animals:

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 (with an exception of the sheep and goats having no pinna (outer ear) to apply an eartag) in compliance with the provisions of Regulation 21/2004, are individually registered and recorded in the database.

The animals are identified with plastic eartags on both ears. 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)

Within the framework of the genotyping programme for resistance breeding, which is in place since 2005, ovine animals are also identified by RFID in form of a ruminal bolus.

The boluses were ordered with codes bearing 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 an eartag for the collection of tissue samples, on which the last 8 digits of the relevant ruminal bolus is printed, plus the check digit as described above.

For sheep, the 20gr boluses are used, which can be applied also to lambs from the age of 35-40 days.

In kids it is possible to apply the 20gr boluses the earliest at the age of 55-60 days. This is a limitation which has to be considered in order to implement in a manageable manner, the RFID in conjunction with the genotyping and the slaughtering for human consumption of kids until the age of 3 months.

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

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 the identification of animals with suspect TSE signs.

4.6. Monitoring

Since the programme as presented in the current document has a 2 year period of implementation, the tables as foreseen in Decision 2008/425 will be grouped for 2009 and 2010.

4.6.1. Monitoring in bovine animals

| Description | Estimated Number of tests | Estimated Number of tests | Details |
|---|---------------------------|---------------------------|---------|
| | 2009 | 2010 | |
| Animals referred to in Annex III, Chapter A, Part I, points 2.1, 3 and 4 of Regulation (EC) 999/2001 of the European Parliament and of the Council. | 1500 | 1500 | |
| Animals referred to in Annex III, Chapter A, Part I, points 2.2 of Regulation (EC) | 7500 | 7500 | |

| | | | |
|------------------|--|--|--|
| 999/2001 | | | |
| Others (specify) | | | |

4.6.2. Monitoring in Ovine animals

| Description | Estimated Number of tests | Estimated Number of tests | Details |
|---|---------------------------|---------------------------|--|
| | 2009 | 2010 | |
| Ovine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) 999/2001 | 250 | 250 | Animals from flocks where epidemiological link exists with infected flocks |
| Ovine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) 999/2001 | 1500 | 1500 | Fallen stock |
| Ovine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) 999/2001 | 1500 | 1500 | Animals in infected flocks, with sensitive genotypes, that are expected to complete their production cycle. Only a random sample of the animals to be killed under the TSI; eradication measures will be tested, otherwise the capacity of the Laboratories would be exceeded. |
| Ovine animals referred to in Annex VII, point 3.4(d) of Regulation (EC) 999/2001 | | | In case a derogation is granted to Cyprus to allow the slaughtering of animals for human consumption, then the programme will be revised regarding this field. |
| Ovine animals referred to in Annex VII, point 5(b)(ii) of Regulation (EC) 999/2001 | | | |
| Others (specify) | | | |

4.6.3. Monitoring in Caprine animals

| Description | Estimated Number of tests | Estimated Number of tests | Details |
|-------------|---------------------------|---------------------------|---------|
| | 2009 | 2010 | |
| | | | |

| | | | |
|---|------|------|---|
| Caprine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) 999/2001 | 250 | 250 | Animals from flocks where epidemiological link exists with infected flocks |
| Caprine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) 999/2001 | 1500 | 1500 | Although according to the goat population of Cyprus, the number of 500 samples would be sufficient, a higher number is targeted in order to identify any infected flock |
| Caprine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) 999/2001 | 1500 | 1500 | Animals in infected flocks, that are expected to complete their production cycle. Only a random sample of the animals to be killed under the TSE eradication measures will be tested, otherwise the capacity of the Laboratories would be exceeded. |
| Caprine animals referred to in Annex VII, point 3.3(c) of Regulation (EC) 999/2001 | | | In case a derogation is granted to Cyprus to allow the slaughtering of animals for human consumption, then the programme will be revised regarding this field. |
| Caprine animals referred to in Annex VII, point 5(b)(ii) of Regulation (EC) 999/2001 | | | |
| Others (specify) | | | |

4.6.4. Discriminatory tests

| Description | Estimated number of tests | Estimated number of tests | Details |
|--|---------------------------|---------------------------|--|
| | 2009 | 2010 | |
| Primary molecular testing referred to in Annex X, Chapter C, point 3.2(c)(i) of Regulation (EC) 999/2001 | 1500 | 1100 | It will cover new flocks and the 2 samples per flock each year according to the amendment of the Regulation to be adopted. |

4.6.5. Genotyping of positive and randomly selected animals

| Description | Estimated number of tests | Estimated number of tests | Details |
|---|---------------------------|---------------------------|---|
| | 2009 | 2010 | |
| Animals referred to in Annex III, Chapter A, Part II, point 8.1 of Regulation (EC) 999/2001 | | | Almost the entire sheep population in Cyprus has been genotyped within the framework of the breeding programme. |
| Animals referred to in Annex III, Chapter A, Part II, point 8.2 of Regulation (EC) 999/2001 | | | Almost the entire sheep population in Cyprus has been genotyped within the framework of the breeding programme. |

4.7. Eradication

4.7.1. Measures following confirmation of a BSE case.

4.7.1.1. Description:

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 in incinerators.
- Decontamination procedures will be undertaken on any materials and equipment that came in contact with slaughtered animals

4.7.1.2. Summary table

| Description | Estimated number | Estimated number | Details |
|---|------------------|------------------|---|
| | 2009 | 2010 | |
| Animals to be killed according to requirements of Annex VII, Point 2.1 of Regulation (EC) 999/2001: | 0 | 0 | As until now no positive case of BSE occurred in Cyprus, it is not expect to have a positive case in 2009 or 2010 which will force us to destroy any bovines considered to be at risk. <u>Nevertheless an amount of 25000 Euro should be available each year in the case an outbreak</u> |

4.7.2. Measures following confirmation of a Scrapie case.

4.7.2.1. Description:

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

- holding is placed under movement restrictions
- trade of animals for the aims of reproduction is only allowed for the categories of animals as laid down under Point 3.3, Chapter A of Annex VII to Reg. (EC) 999/2001.
- a written notification is given to the farmers about the applied measures on the holding
- analytical epidemiological research is carried out for the detection if possible of the source of infection and the dimensions of the spreading
- suspect animals are confiscated and their reproductive value is estimated
- confiscated animals are killed, sampled and forwarded to the incinerator for complete destruction
- frequent inspections of the affected units are then carried out by the Veterinary Services for the early detection of suspect scrapie affected animals
- in case ovine animals are reared in the farm, the Veterinary Services include the farm in the list of priority to provide it with ARR/ARR rams from the nucleus units as soon as such animals are available.

4.7.2.2. Summary table

| Description | Estimated number 2009 | Estimated number 2010 | Details |
|--|--|--|---|
| Animals to be killed according to requirements of Annex VII, Point 2.3 of Regulation (EC) 999/2001: | 16000 goats to be replaced (**) 5500 sheep with no ARR allele(**) 7500 suspect goats 1000 suspect sheep | 44000(*) goats with susceptible genotypes(**),(***) 21500 sheep with no ARR allele(**) 5000 suspect goats 500 suspect sheep | *36000 are the susceptible genotypes calculated on the basis of an estimated presence of about 45% of susceptible genotypes after the first year of implementation of a breeding programme. 8000 (20%) are resistant and semiresistant animals that closed their production cycle. |
| Total | 30000 | 67000 | **In case a derogation is granted to Cyprus only allowing animals from scrapie infected flocks to be slaughtered for human consumption, these animal could be slaughtered and be examined by a rapid test when over the age of 12 months prior to their release on the market. ***After the first year of implementation of a breeding programme, it is expected that the resistant and semiresistant goats will reach 55% of the population in infected flocks. |
| Animals to be genotyped according to requirements of Annex VII, Point 2.3 of Regulation (EC) 999/2001: | | | Almost the entire sheep population in Cyprus has been genotyped within the framework of the breeding programme. |

4.7.3. Breeding programme for resistance to TSE's in sheep

4.7.3.1. General description³:

The PrP-genotyping of lambs in Cyprus will be continued also in 2009 and 2010.

³ Description of the programme according to the minimum requirements set out in Annex VII, Chapter B of Regulation (EC) No 999/2001

Aim of the programme is to identify all animals bearing at least 1 ARR allele, apply selective breeding for resistance in the flocks and increase the frequency of the ARR allele within the ovine population in Cyprus and achieve in 2010 the target that no other ovine animals than those bearing at least 1 ARR allele are present on scrapie infected holdings.

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 420,000 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.

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.

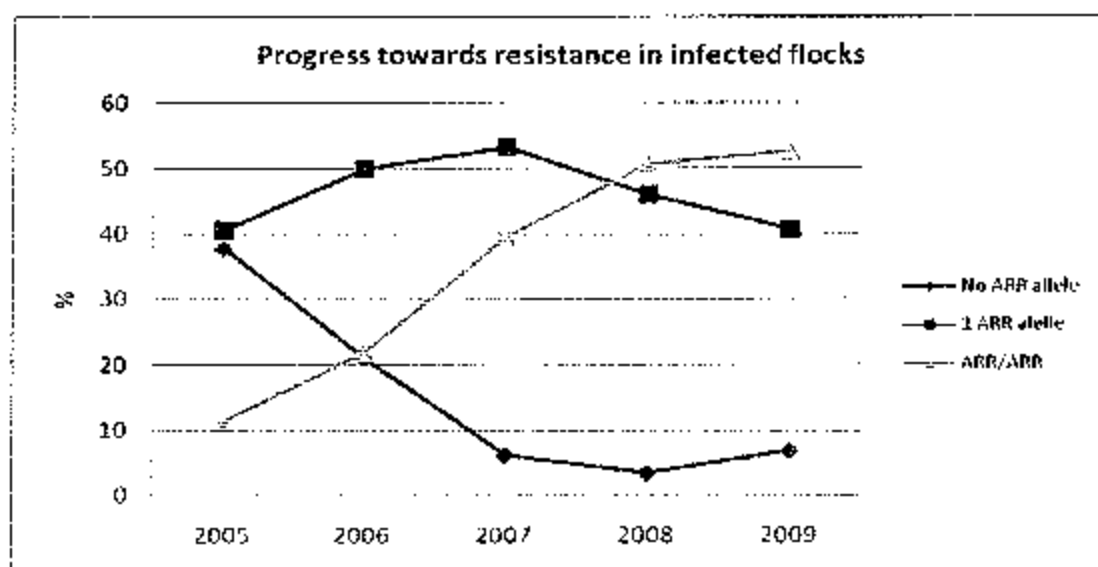
The aim of this selection was to identify as many ARR/ARR animals as possible so that they could be introduced in other flocks with scrapie. Because the capacity of the two nucleus units was relatively limited and the demand for ARR/ARR rams very high, the genotyping programme of 2004 was planned so 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.

The table below is presenting the results of the breed survey of the 2 main breeds in Cyprus which was carried out in 1998 in comparison to the results of the genotyping programmes of 2004 and 2005.

| PrP Genotype | 1998 | | 1998 | | 2004 | | 2005 | |
|---|-------------|----|-------------|----|---|-------|-------------------------|-------|
| | Chios breed | | Local Breed | | Chios and Chios X Local (selected flocks) | | Chios and Chios X Local | |
| | N=145 | | N=171 | | N=32894 | | N=121,587 | |
| | % | n | % | n | % | n | % | n |
| AA ₁₃₆ RR ₁₅₄ QQ ₁₇₁ | | 97 | 50.3 | 86 | | 8060 | 31.1 | 37787 |
| AA ₁₃₆ RR ₁₅₄ RQ ₁₇₁ | | 22 | 19.9 | 34 | | 13697 | 31.6 | 38368 |
| AA ₁₃₆ RR ₁₅₄ RR ₁₇₁ | | 1 | 5.3 | 9 | | 5086 | 10.2 | 12432 |
| AA ₁₃₆ RR ₁₅₄ QK ₁₇₁ | 11 | 16 | 1.1 | 2 | 2.54 | 835 | 4.1 | 4974 |
| AA ₁₃₆ RR ₁₅₄ RK ₁₇₁ | 0.7 | 1 | 0 | 0 | 2.14 | 704 | 1.8 | 2241 |
| AA ₁₃₆ RR ₁₅₄ KK ₁₇₁ | 0.7 | 1 | 0 | 0 | 0.10 | 34 | 0.3 | 316 |
| AA ₁₃₆ RR ₁₅₄ QH ₁₇₁ | 0 | 0 | 12.9 | 22 | 3.41 | 1123 | 4.9 | 5967 |
| AA ₁₃₆ RR ₁₅₄ RH ₁₇₁ | 0 | 0 | 5.9 | 10 | 2.01 | 662 | 1.9 | 2321 |
| AA ₁₃₆ RR ₁₅₄ HH ₁₇₁ | 0 | 0 | 1.1 | 2 | 0.26 | 85 | 0.6 | 576 |
| AA ₁₃₆ RH ₁₅₄ QQ ₁₇₁ | 1.4 | 2 | 2.9 | 5 | 1.48 | 488 | 2.2 | 2693 |
| AT ₁₃₆ RR ₁₅₄ QQ ₁₇₁ | 2.7 | 4 | 0.5 | 1 | 2.80 | 923 | 6.0 | 7244 |
| TT ₁₃₆ RR ₁₅₄ QQ ₁₇₁ | 0.7 | 1 | 0 | 0 | 0.15 | 51 | 0.5 | 569 |
| AT ₁₃₆ RR ₁₅₄ RQ ₁₇₁ | | | | | 1.83 | 601 | 2.43 | 2961 |

The table and the figure below, present a comparison of the presence of the different resistance categories among the results of the campaigns between 2005 and the first months of 2009 from the samples collected from affected flocks.

| Year | (n) total | (n) No ARR allele | % | (n) 1 ARR allele | % | (n) ARR/ARR | % |
|------|-----------|-------------------|-------|------------------|-------|-------------|-------|
| 2005 | 77120 | 29111 | 37,75 | 31217 | 40,48 | 8757 | 11,36 |
| 2006 | 63021 | 13237 | 21 | 31471 | 49,93 | 13810 | 21,91 |
| 2007 | 35289 | 2164 | 6,13 | 18772 | 53,2 | 13993 | 39,65 |
| 2008 | 33220 | 1126 | 3,39 | 15273 | 45,97 | 16821 | 50,63 |
| 2009 | 19356 | 1311 | 6,77 | 7867 | 40,64 | 10178 | 52,58 |



4.7.3.2. Summary table

| Description | Estimated number | Estimated number | Details |
|---|------------------|------------------|--|
| | 2009 | 2010 | |
| Ewes to be genotyped under the framework of a breeding programme referred to in Article 6a of Regulation (EC) No 999/2001 | 80.000 | 80.000 | Young animals (lambs, males and females) born in 2009 and 2010 which will be examined in order to facilitate the selection of animals for replacement in the flocks. |
| Rams to be genotyped under the framework of a breeding programme referred to in Article 6a of Regulation (EC) No 999/2001 | | | |

4.7.3.2. Summary table (Caprine animals)

| Description | Estimated number 2009 | Estimated number 2010 | Details |
|--|--------------------------|--------------------------|---|
| Caprine animals to be genotyped under the framework of a breeding programme for goats based on the results of the Cyprus Pilot Project for Goats | 352.000 | 264.000 | The entire adult goat population counts about 220000 animals. Considering a maximum reproduction rate of 1.2 kid per goat per year, and the fact that the first period of giving birth in the first half of 2009 will be over before the tender procedures are completed, the total number of animals to be genotyped in 2009 and 2010 is calculated to reach 616000. Young animals (males and females) born in 2009 and 2010 which will be examined in order to facilitate the selection of animals for replacement in the flocks. |

Cost of personell specially employed for the purpose of the collection of the samples for genotyping

| Description | Year | Number of persons | Duration of employment | Details |
|---|------|-------------------|------------------------|---|
| Specially employed personell for samle collection for genotyping. | 2009 | 42 | 5 months | These after they receive a traing in applying the ruminal boluses and collecting the tissue samples, they will form 25 sampling teams (2-headed) and will collect the 432000 samples (sheep and goats) in the periode from September to December. An average of at least 230 samples must be achieved per team per day. |
| | 2010 | 40 | 10 months | Although the number of samples to be collected in 2010 are less than in 2009, due to the fact that it is more time consuming to collect samples from certain animals within a population and due to the fact that frequent visits to each infected flock are necessary in order to be able and have the genotyping results before the kids reach the age of 3 months, the formation of 20 sampling teams cannot be avoided. |

5. Costs for 2009

5.1 Detailed analysis of the costs

5.2 Summary of the costs

| Costs related to | Specification | Number of units | Unitary cost in € | Total amount in € | Community funding requested (yes/no) |
|--|-------------------|-----------------|-------------------|-------------------|--------------------------------------|
| 1. BSE testing⁴ | | | | | |
| 1.1 Rapid tests | Test Biorad TeSeE | 9000 | 10 | 90.000 | yes |
| 2. Scrapie testing⁵ | | | | | |
| 2.1 Rapid tests | Test Biorad TeSeH | 6500 | 27 | 175.500 | yes |
| 3. Discriminatory testing⁶ | | | | | |
| 3.1 Primary molecular tests | VLA hybrid WB | 1500 | 175 | 262.500 | yes |

⁴ As referred in point 4.6.1

⁵ As referred in point 4.6.2 and 4.6.3

⁶ As referred in point 4.6.4

| Costs related to | Specification | Number of units | Unitary cost in € | Total amount in € | Community funding requested (yes/no) |
|--|---------------|-----------------|-------------------|-------------------|--------------------------------------|
| 4. Genotyping | | | | | |
| Specially employed labour (in man-months) | | 210 | 1240 | 260.400 | yes |
| 4.2 Determination of genotype of animals in the framework of a breeding programme | | 432000 | 7 | 3.024.000 | yes |
| 5. Compulsory Slaughter | | | | | |
| 5.1 Compensation for bovine animals to be killed under the requirements of Annex VII, Chapter A, point 2.1 of Regulation (EC) No 999/2001 | | | | 25.000 | yes |
| 5.2 Compensation for ovine and caprine animals to be killed under the requirements of Annex VII, Chapter A, Point 2.3 of Regulation (EC) No 999/2001 | | 30000 | 130 | 3.900.000 | Yes |
| TOTAL | | | | 7.736.900 | yes |

⁷ As referred in point 4.7.3.2

5. Costs for 2010

5.1 Detailed analysis of the costs

5.2 Summary of the costs

| Costs related to | Specification | Number of units | Unitary cost in € | Total amount in € | Community funding requested (yes/no) |
|---|--------------------|-----------------|-------------------|-------------------|--------------------------------------|
| 1. BSE testing^h | | | | | |
| 1.1 Rapid tests | Test: Biorad TeSeE | 9000 | 10 | 90.000 | yes |
| 2. Scrapie testing^g | | | | | |
| 2.1 Rapid tests | Test: Biorad TeSeE | 6500 | 27 | 175.500 | yes |
| 3. Discriminatory testing¹⁰ | | | | | |
| 3.1 Primary molecular tests | VLA hybrid WB | 1100 | 175 | 192.500 | yes |

^h As referred in point 4.6.1

^g As referred in point 4.6.2 and 4.6.3

¹⁰ As referred in point 4.6.4

| Costs related to | Specification | Number of units | Unitary cost in € | Total amount in € | Community funding requested (yes/no) |
|--|---------------|-----------------|-------------------|-------------------|--------------------------------------|
| 4. Genotyping | | | | | |
| Specially employed labour (in men-months) | | 400 | 1240 | 496.000 | yes |
| 4.2 Determination of genotype of animals in the framework of a breeding programme ¹³ | | 344000 | 7 | 2.408.000 | yes |
| 5. Compulsory Slaughter | | | | | |
| 5.1 Compensation for bovine animals to be killed under the requirements of Annex VII, Chapter A, point 2.1 of Regulation (EC) No 999/2001 | | | | 25.000 | yes |
| 5.2 Compensation for ovine and caprine animals to be killed under the requirements of Annex VII, Chapter A, Point 2.3 of Regulation (EC) No 999/2001 | | 67000 | 130 | 8.770.000 | Yes |
| TOTAL | | | | 12.097.000 | yes |

¹³ As referred in point 4.7.3.2

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ANNEX

ADDITIONAL COSTS REQUESTED TO BE COFINANCED BY THE EUROPEAN COMMISSION

1. INCOME LOSSES

Regarding the cofinancing of the loss of income that will occur from the killing and destruction of the animals, discussions are still ongoing with DG AGRI. No final decision has been taken yet. Our request is that the European Commission cofinances the income loss of the farmers for the culled animals.

2. DESTRUCTION OF CARCASSES

The amount paid today in Cyprus for the destruction of 1 ton of fallen stock is 340€. For our calculations, it is assumed that 18 animals weigh 1 ton (approx. 55kg per animal).

| YEAR 2009 | | | | YEAR 2010 | | | |
|-----------|------|----------|--------------------------------------|-----------|------|------------|--------------------------------------|
| ANIMALS | TONS | COST | Community funding requested (yes/no) | ANIMALS | TONS | COST | Community funding requested (yes/no) |
| 30000 | 1666 | 566,440€ | yes | 67.000 | 3722 | 1.265,480€ | yes |

3. DISINFECTION

The scrapie control plan foresees the implementation of disinfections of the farm and the housings of the animals with caustic soda. It is estimated that in total for the 2 years (2009 and 2010), a quantity of 100 tons of caustic soda will be needed. The cost per ton is about 800€. Therefore, for 2009, the cost for disinfections will be 40.000€. The same amount (40.000€) will be spent also for 2010.

4. CREATION OF EMBRYO CRYOBANK FOR BREED CONSERVATION

Due to massive confiscations of animals within the framework of the Scrapie eradication programme and also due to the implementation of the breeding programmes with the elimination of the susceptible genotypes, it is vital to establish embryo cryobank for the conservation of breeds, genotypes or categories of animals that will be endangered with extinction.

Three hundred embryos (150 during 2009 and 150 during 2010) will be collected for each of the following breeds or categories of animals:

- Local Machairas goat breed
- Local Akama goat

- Local fat tailed sheep
- Sheep without an ARR allele
- Goats with sensitive genotype.

In total 750 embryos during 2009 and 750 embryos during 2010. The total cost for the collection and cryopreservation of each embryo is estimated to 100€.

| YEAR 2009 | | | | YEAR 2010 | | | |
|-------------------|-----------|------------|--------------------------------------|-------------------|-----------|------------|--------------------------------------|
| NUMBER OF EMBRYOS | UNIT COST | TOTAL COST | Community funding requested (yes/no) | NUMBER OF EMBRYOS | UNIT COST | TOTAL COST | Community funding requested (yes/no) |
| 750 | 100€ | 75,000€ | yes | 750 | 100€ | 75,000€ | yes |

5. CONSUMABLES

As it will be necessary to kill a high number of animals, Cyprus requests the cofinancing by the Commission of the drugs used for the euthanasia of the animals.

The drug T61 is used for the killing of the animals. Each vial is sufficient to kill 10 animals. Each vial costs about 21,40€.

| YEAR 2009 | | | | YEAR 2010 | | | |
|------------------------|-----------|------------|--------------------------------------|------------------------|-----------|------------|--------------------------------------|
| NUMBER OF VIALS NEEDED | UNIT COST | TOTAL COST | Community funding requested (yes/no) | NUMBER OF VIALS NEEDED | UNIT COST | TOTAL COST | Community funding requested (yes/no) |
| 3000 | 21,40€ | 64,200€ | yes | 6700 | 21,40€ | 143,380€ | yes |

6. PERSONNEL

In order to be able to effectively implement the control programme, a considerable number of specially employed personnel, apart from the workers to be employed for sampling purposes, will be recruited.

The financial contribution of the Commission is requested for the following personnel which will be recruited specially for the scrapie eradication and control programme.

In the following tables the needs and the costs are presented for the required personnel.

| Description | Year | Number of persons | Duration of employment | Men-Months | Unit Cost in € | Total € | Community funding requested (yes/no) |
|-----------------------|------|-------------------|------------------------|------------|----------------|----------------|--------------------------------------|
| Veterinary Officers | 2009 | 16 | 7 months | 112 | 2135 | 239.120 | yes |
| Veterinary Inspectors | 2009 | 20 | 7 months | 140 | 1316 | 184.240 | yes |
| Clerical staff | 2009 | 3 | 7 months | 21 | 1311 | 27.531 | yes |
| Informatic specialist | 2009 | 1 | 7 months | 7 | 2135 | 14.945 | yes |
| Assistant Accountants | 2009 | 2 | 7 months | 14 | 1316 | 18.424 | yes |
| Total | | | | | | 484.260 | yes |

| Description | Year | Number of persons | Duration of employment | Men-Months | Unit Cost in € | Total € | Community funding requested (yes/no) |
|-----------------------|------|-------------------|------------------------|------------|----------------|----------------|--------------------------------------|
| Veterinary Officers | 2010 | 16 | 10 months | 160 | 2135 | 341.600 | yes |
| Veterinary Inspectors | 2010 | 20 | 10 months | 200 | 1316 | 263.200 | yes |
| Clerical staff | 2010 | 3 | 10 months | 30 | 1311 | 39.330 | yes |
| Informatic specialist | 2010 | 1 | 10 months | 10 | 2135 | 21.350 | yes |
| Assistant Accountants | 2010 | 2 | 10 months | 20 | 1316 | 26.320 | yes |
| Total | | | | | | 691.800 | yes |

