



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

SANCO/3916/2008

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

## **Monitoring and eradication programme of TSE, BSE and scrapie**

**Approved\* for 2009 by Commission Decision 2008/897/EC**

**United Kingdom**

\* in accordance with Commission Decision 90/424/EEC



### ANNEX III

Standard requirements for the submission of national programmes of eradication and monitoring of TSEs<sup>1</sup> as referred to in Article 1(c)

1. Identification of the programme

Member State: UNITED KINGDOM (Great Britain)

Disease(s)<sup>2</sup>: TSE

Year of implementation: 2009

Reference of this document: CUL 371

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Date sent to the Commission: April 2008

2. Description of the programme

Epidemiological Surveillance and Eradication as required by Commission Decision 999/2001 as amended.

3. Description of the epidemiological situation of the disease

The BSE epidemic in Great Britain has continued to decline. From a peak of almost 37,000 clinical cases in 1992, there were just 39 clinical cases (and 164 active surveillance cases) in 2005 and 15 clinical cases (and 89 active surveillance cases) in 2006, an overall reduction of almost 50per cent between 2005 and 2006. A combined total of 53 BSE cases were confirmed in 2007. In March 2005,

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<sup>1</sup> bovine Spongiform Encephalopathy (BSE), Scrapie and Chronic Waste Disease (CWD)

<sup>2</sup> 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 European Food Safety Authority confirmed that, according to the OIE classification at that time, the UK could be considered as a country with a moderate risk status.

The effect of the reinforced feed ban, involving the prohibition of the feeding of mammalian derived protein to all farm animal species, which became effective from 1 August 1996 is evident from analyses of the incidence within 12 month birth cohorts. The risk of infection for the 1996/97 cohort was one hundredth of that experienced by the 1993/94 cohort, and one fifteenth of that for 1995/96 born animals. The incidence of BSE in animals born after the reinforced feed ban (BARB cases) has therefore been extremely low. There is evidence of a decline in the risk of infection for the later born BARB birth cohorts. The risk for a herd in Great Britain experiencing a BARB case has decreased from 3 per million in August 1996 to less than 1 per million from August 1998 onwards. These cases have a different epidemiological picture in terms of the geographical risk of infection compared to the two previous phases of the epidemic in GB. The risk of infection for the BARB cohorts was more or less uniformly distributed across the country and was not concentrated in previously high incidence areas or herds. These cases are the subject of detailed epidemiological investigations and analyses to examine the potential reasons for their occurrence. The incidence of BSE in a number of the 12 month birth cohorts has however exhibited geographical clustering. Epidemiological investigations and studies indicate that a feedborne source is most likely, but the cases appear to be unrelated to the exposure in the earlier stages of the epidemic in Great Britain. A working hypothesis is that infection has occurred as a result of the importation of contaminated feed ingredients via ports in other EU MS where the reinforced feed ban was not introduced until January 2001.

In summary, the BSE epidemic in GB is clearly in decline and the future incidence will depend on the survival time of cattle that were exposed before the feed bans in GB and other EU MS became fully effective.

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:**

Department of Environment, Food and Rural Affairs (Defra) representing The Scottish Government, Rural Directorate and Welsh Assembly Government, Department of Sustainability and Rural Development (WAG DSRD).

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

Great Britain (England, Scotland and Wales)

4.3. **System in place for the registration of holdings:**

All agricultural holdings in Great Britain are allocated a unique holding number known as a "County, Parish and Holding" (CPH) number. On request for a CPH number the Customer Registration team of the Rural Payments Agency will clarify the County and associated Parish number for the land in the Rural Land Register. The next sequential Agricultural Holding number for that County/Parish is then allocated by the RITA computer system and the customer is informed in writing. The information is then transmitted electronically to the UK's Animal Health Agency (AH) and other systems falling under the Defra umbrella.

4.4. **System in place for the identification of animals:**

THE CATTLE IDENTIFICATION SYSTEM

Council Regulation (EC) 1760/2000 establishes a system for the identification and registration of bovine animals. The EU Regulations are enforced in GB through the Cattle Identification Regulations 2007.

To ensure traceability is achieved, cattle are required to be correctly identified in accordance with the above legislation. There are four elements in the cattle identification system in Great Britain as follows: -

- Tagging
- Farm records

- Passports
- Cattle Tracing System (CTS)

#### **Tagging**

- Cattle born after 1 January 1998 must have a Defra approved ear tag in each ear (double tagging), each tag must have the same unique number. Cattle born after 1 July 2000 must be identified by all numeric tags
- Animals born or imported into Great Britain before 1 January 1998 may continue to be identified by a single tag.
- All cattle must be tagged within 20 days of birth. In the case of dairy animals at least one of the tags must be fitted within 36 hours of birth.
- Animals imported from third countries must be retagged in each ear within 15 days of import.

#### **Farm Records**

- The Register may be paper or computer based and must record details of births, deaths and movements on to and off the holding.
- Registers must be retained by farms for 10 years and 3 years in any other case (e.g. markets) from the end of the calendar year in which the last entry was made.
- Register must be completed within the following deadlines:
  - 36 hours in the case of movements on or off a holding
  - 7 days for the birth of a dairy animal
  - 7 days for death
  - 36 hours of replacing cartags

#### **Passports**

- All cattle born in or imported into Great Britain since 1 July 1996 must have a cattle passport.
- Applications for cattle passports must be made to the BCMS within 15 days of tagging (for animals born on or after 1<sup>st</sup> October 1998), applications for animals born from 1 January 2000 must be within 7 days of tagging.
- Calves under 28 days may move twice without a full cattle passport, on a calf passport.
- Cattle imported from outside the European Union must apply for a cattle passport within 15 days of tagging.

- Cattle from another Member State, Northern Ireland, the Channel Islands or the Isle of Man must apply for a GB cattle passport within 15 days of arrival at the holding of destination.
- Passports must accompany the animal in all movements.

#### The Cattle Tracing System

- The Cattle Tracing System (CTS), run by the British Cattle Movement Service (BCMS), was launched on 28 September 1998. The CTS is a computer-based system, which registers all cattle in Great Britain and records all their movements from birth to death.

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

The Transmissible Spongiform Encephalopathy (No.2) Regulations 2006 (SI 2006/1228)

<http://www.opsi.gov.uk/si/si2006/20061228.htm>

The Transmissible Spongiform Encephalopathies (Scotland) Regulations 2006 (SSI 2006/530)

<http://www.opsi.gov.uk/legislation/scotland/ssi2006/20060530.htm>

The Transmissible Spongiform Encephalopathies (Wales) Regulations 2006 (W.SI 2006/1226 (W.117))

<http://www.opsi.gov.uk/legislation/wales/wsi2006/20061226c.htm>

#### 4.6. Monitoring

##### 4.6.1. Monitoring in Bovine Animals



	Estimated Number of tests
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 <sup>3</sup>	252,700
Animals referred to in Annex III, Chapter A, Part I, point 2.2 of Regulation (EC) No 999/2001	540,000
Others (specify)	

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<sup>3</sup> OJ L 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	10,000
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	10,000
Ovine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	1,000
Ovine animals referred to in Annex VII, Chapter A, point 3.4(d) of Regulation (EC) No 999/2001	4,646
Ovine animals referred to in Annex VII, Chapter A, point 5(b)(ii) of Regulation (EC) No 999/2001	3,220
Others (specify other animal species referred to in Annex III, Chapter A, Part III of Regulation (EC) No 999/2001 (Specify separately each species))	

#### 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	
Caprine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	500
Caprine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	1,000
Caprine animals referred to in Annex VII, Chapter A, point 3.3(c) of	700

Regulation (EC) No 999/2001	
Caprine animals referred to in Annex VII, Chapter A, point 5(b)(ii) of Regulation (EC) No 999/2001	
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	109

#### 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	109
Animals referred to in Annex III, Chapter A, Part II, point 8.2 of Regulation (EC) No 999/2001	600

### 4.7. Eradication

#### 4.7.1. Measures following confirmation of a BSE case:

##### 4.7.1.1. Description:

In GB measures following the confirmation of a BSE in a bovine animal include veterinary enquiry and investigation, the culling of progeny born within 2 years prior to, or after, clinical onset of disease and identification and culling of cohorts born on or after 1 August 1996 of BSE positive animals born on or after 1 August 1995. Cohorts are sampled and tested. Culled offspring and cohorts are completely destroyed.

##### 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:	164



*4.7.2. Measures following confirmation of a Scrapie case:*

4.7.2.1. Description:

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

*4.7.3. Breeding programme for resistance to TSEs in sheep*

4.7.3.1. General description<sup>4</sup>:

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) 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	

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

## 5.

### Costs

#### 5.1. Detailed analysis of the costs:

Rapid testing of animals referred to in Annex III, Chapter A, Part 1, points 2 (Monitoring in animals slaughtered for human consumption) and 4 (Monitoring in animals purchased for destruction), of Regulation (EC) 999/2001 is carried out by a contracted private laboratory, LGC. For reasons of commercial confidentiality LGC cannot disclose details of the cost to them of the Biorad test kits. The LGC cost of £10.30, £8.00 or £7.50 per test (depending on units tested in relation to the contract period) is the total cost of testing including: test kit and associated consumables, laboratory costs and staff/administrative overheads. We have presented this explanation to the Commission in previous claims/forecasts and hope that it is still acceptable in this instance. This information is provided in strictest confidence and must on no account be disclosed.

The VLA costs are calculated on the same basis but averaged over the year. The VLA costs are also commercially confidential.

#### 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 <sup>5</sup>					
1.1.	Rapid tests					
VLA		Test: Biorad	250,200	£19.86	£4,968,972.00	YES
LGC		Test: Biorad	350,000	£10.30	£3,605,000.00	YES
LGC		Test: Biorad	150,000	£8.00	£1,200,000.00	YES
LGC		Test: Biorad	42,500	£7.50	£318,750.00	YES
2.	Scrapie testing <sup>6</sup>					

<sup>5</sup> As referred to in point 4.6.1.

<sup>6</sup> As referred to in points 4.6.2 and 4.6.3.

<b>2.1. Rapid tests</b>						
VLA: Fallen Stock Survey (sheep and goats)	Test: Biorad	10,500	£94.22	£989,310.00	YES	
VLA: Abattoir Survey (Slaughtered for Human Consumption)	Test:	10,000	£72.36	£723,600.00	YES	
VLA: CSFS Initial Cull - Referred to in Annex III, Chapter A, Part II, Point 2	Test: Biorad	2,000	£42.61	£85,220.00	YES	
VLA: CSFS Annual Cull - Referred to in Annex VII, Chapter A, Point 3.3 c / 3.4 d	Test: Biorad	4,581	£72.36	£331,481.16	YES	
VLA: CSFS Fallen Stock - Referred to in Annex VII, Chapter A, Point 3.3 c / 3.4 d	Test: Biorad	765	£94.22	£72,078.30	YES	
VLA: CSFS Annual Cull - Referred to in Annex VII, Chapter A, Point 5 b (ii)	Test: Biorad	2875	£72.36	£208,035.00	YES	
VLA: CSFS Fallen Stock - Referred to in Annex VII, Chapter A, Point 5 b (ii)	Test: Biorad	345	£94.22	£32,505.90	YES	
<b>3. Discriminatory testing?</b>						
<b>3.1. Primary molecular tests</b>	Test:	109	£1,697.91	£185,072.19	YES	

As referred to in point 4.6.4.



4.	Genotyping								
4.1.	Determination of genotype of animals in the framework of the monitoring and eradication measures laid down by Regulation (EC) No 999/2001 <sup>8</sup>	Method: VLA – The prion protein genotype for the codons 136, 154, and 171 carried out in a random sample of 600 animals and each TSE positive sheep.	109 + 600 = 709	£22.36	£15,853.24	YES			
4.2.	Determination of genotype of animals in the framework of a breeding programme <sup>9</sup>	Method							
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	Estimate 164 animals slaughtered in 2009	164	£899.54	Total compensation estimated as £147,524.56 @ 50% = £73,763	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								
TOTAL								£12,809,640.79	

<sup>8</sup> As referred to in points 4.6.5 and 4.7.2.2.

<sup>9</sup> As referred to in point 4.7.3.2.

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### ANNEX III

Standard requirements for the submission of national programmes of eradication and monitoring of TSEs<sup>1</sup> as referred to in Article 1(c)

1. Identification of the programme

Member State: United Kingdom (Northern Ireland)  
Disease(s)<sup>2</sup>: Transmissible Spongiform Encephalopathies  
Year of implementation: 2009  
Reference of this document: AH 37/14/07  
Contact (name, phone, fax, e-mail): Kate Davey, Department of Agriculture and Rural Development, Dundonald House,  
Upper Newtownards Road, Belfast, BT4 3SB  
Telephone: 028 9052 4408 E-mail: Kate.Davey@dardni.gov.uk  
Date sent to the Commission: March 2008

2. Description of the programme Epidemiological Surveillance and Eradication as required by Commission Decision 999/2001 as amended

3. Description of the epidemiological situation of the disease

The BSE epidemic in the UK has continued an overall decline. In March 2005 the European Food Safety Authority confirmed that, according to the OIE classification at that time, the UK could be considered as a country with a moderate risk status.

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<sup>1</sup> : Bovine Spongiform Encephalopathy (BSE), Scrapie and Chronic Waste Disease (CWD)  
<sup>2</sup> : 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 effect of the reinforced feed ban, involving the prohibition of the feeding of mammalian derived protein to all farm animal species which became effective from 1 August 1996 is evident from analyses of the incidence within 12 month birth cohorts. The risk of infection for the 1996/97 cohort was one hundredth of that experienced by the 1993/94 cohort, and one fiftieth of that for 1995/96 born animals. The incidence of BSE in animals born after the reinforced feed ban (BARB cases) has therefore been extremely low. There is now evidence of a decline in the risk of infection for the later born BARB birth cohorts. The risk for a herd in the UK experiencing a BARB case has decreased from 3 per million in August 1996 to less than 1 per million from August 1998 onwards. These cases have a different epidemiological picture in terms of the geographical risk of infection compared to the two previous phases of the epidemic in the UK. The risk of infection for the BARB cohorts was more or less uniformly distributed across the country and was not concentrated in previously high incidence areas or herds. These cases are the subject of epidemiological investigations and analyses to examine the potential reasons for their occurrence. The incidence of BSE in a number of the 12 month birth cohorts has however exhibited geographical clustering. Epidemiological investigations and studies indicate a feedborne source is most likely, but the cases appear to be unrelated to the exposure in the earlier stages of the epidemic in the UK. A working hypothesis is that infection has occurred as a result of importation of contaminated feed ingredients via ports or in other EU MS where the reinforced feed ban was not introduced until January 2001.

In summary the BSE epidemic in the United Kingdom is clearly in decline and the future incidence will depend on the survival of cattle that were exposed before the feed bans in the UK and other EU MS became fully effective.

**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:**

In Northern Ireland the Department of Agriculture and Rural Development (DARD)

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

**4.3. System in place for the registration of holdings:**

All cattle herds in Northern Ireland are Registered with DARD and each herd is allocated a unique herd number. This information is held on the dard Animal and Public Health Information System (APHIS)

**4.4. System in place for the identification of animals:**

In Northern Ireland, under the Cattle Identification (No 2) Regulations (Northern Ireland) 1998, the Cattle Identification (Notification of Births, Deaths and Movements) Regulations (Northern Ireland) 1999, the Cattle Identification (Enforcement) Regulations (Northern Ireland) 1998 and the Identification and Notification of Cattle Regulations (Northern Ireland) 2004 herdkeeper are required to individually identify each bovine animal in the herd with an approved ear tag bearing an individual number applied to each ear and must notify DARD of all births, deaths and movements of bovine animals. This information is held on a database, maintained by DARD, which is known as the Animal and Public Health Information System (APHIS). This Northern Ireland database for bovine animals was officially recognised by the European Commission on 1 November 1999 by Commission Decision 1999/696/EC. Each herdkeeper is also required to maintain an up to date, accurate herd register and record all movements on and off the holding, births, deaths (including manner and place of disposal) and details of replacement tags and retags.

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

The Transmissible Spongiform Encephalopathies Regulations (Northern Ireland) 2006

[http://www.opsi.gov.uk/sr/sr2006/nisr\\_20060202](http://www.opsi.gov.uk/sr/sr2006/nisr_20060202)

#### 4.6. Monitoring

##### 4.6.1. Monitoring in Bovine Animals

	Estimated Number of tests
Animals referred to in Annex III, Chapter A, Part 1, points 2.1, 3 and 4 of Regulation (EC) No 999/2001 of the European Parliament and of the Council <sup>3</sup>	37,500
Animals referred to in Annex III, Chapter A, Part 1, point 2.2 of Regulation (EC) No 999/2001	100,000
Others (specify)	

<sup>3</sup> OJ L 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	700
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	900
Ovine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	150
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 5(b)(ii) of Regulation (EC) No 999/2001	0
Others (specify other animal species referred to in Annex III, Chapter A, Part III of Regulation (EC) No 999/2001 (Specify separately each species))	0

#### 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	20
Caprine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	0
Caprine animals referred to in Annex VII, Chapter A, point 3.3(c) of	0



Regulation (EC) No 999/2001	
Caprine animals referred to in Annex VII, Chapter A, point 5(b)(ii) of Regulation (EC) No 999/2001	0
Others (specify)	0

#### 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	

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

### 4.7. Eradication

#### 4.7.1. Measures following confirmation of a BSE case:

4.7.1.1. Description: In Northern Ireland measures following the confirmation of a BSE in a bovine animal include veterinary and investigation, the culling of progeny born within 2 years prior to, or after, clinical onset of disease and the identification and culling of cohorts born on or after 1 August 1996 of BSE positive animals born on or after 1 August 1995 which are sampled and tested. The remains of culled offspring and cohorts are completely destroyed.

#### 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:	120

#### 4.7.2. Measures following confirmation of a Scrapie case:

##### 4.7.2.1. Description:

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

#### 4.7.3. Breeding programme for resistance to TSEs in sheep

##### 4.7.3.1. General description<sup>4</sup>:

##### 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) 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	

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

## 5.

Costs

## 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)
<b>1. BSE testing<sup>5</sup></b>					
1.1. Rapid tests	Test: Bio Rad	137,620	£14.21	£1,955,580.20	Yes
	Test:				
	Test:				
	Test:				
<b>2. Scrapie testing<sup>6</sup></b>					
2.1. Rapid tests	Test: Bio Rad	1,770	£14.21	£25,151.70	Yes
	Test:				
	Test:				
<b>3. Discriminatory testing<sup>7</sup></b>					
3.1. Primary molecular tests	Test:				
	Test:				

<sup>1</sup> As referred to in point 4.6.1.

<sup>6</sup> As referred to in points 4.6.2 and 4.6.3.

<sup>7</sup> As referred to in point 4.6.4.

<b>4. Genotyping</b>					
<b>4.1.</b>	<b>Determination of genotype of animals in the framework of the monitoring and eradication measures laid down by Regulation (EC) No 999/2001<sup>6</sup></b>	<b>Method</b>			
<b>4.2.</b>	<b>Determination of genotype of animals in the framework of a breeding programme<sup>9</sup></b>	<b>Method</b>			
<b>5. Compulsory Slaughter</b>					
<b>5.1.</b>	<b>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</b>				<b>£200,000</b>
<b>5.2.</b>	<b>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</b>				
<b>TOTAL</b>					

<sup>6</sup> As referred to in points 4.6.5 and 4.7.2.2.

<sup>9</sup> As referred to in point 4.7.3.2.



## EU Veterinary Fund 2009 application – scrapie eradication

### **Standard requirements for the submission of programmes of eradication and monitoring of TSEs co-financed by the Community**

#### **National Scrapie Plan for Great Britain and the Northern Ireland Scrapie Plan**

##### **1. Identification of the programme**

**Member State:** United Kingdom

**Disease:** Scrapie

**Year of implementation:** The (GB) National Scrapie Plan was launched in July 2001 and the Northern Ireland Scrapie Plan was launched in January 2003. From 1 January 2004 it has been a requirement of Commission Decision 2003/100/EC to operate genotype based breeding programmes on a voluntary basis, and on a compulsory footing for 'flocks of high genetic merit' from 1 April 2005. EC Regulation 1923/2006 amended EC 999/2001 to remove the requirement for compulsory breeding programmes for scrapie resistance in these flocks.

##### **Reference of this document:**

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**Date sent to the Commission:** April 2009

##### **2. Description of the programme**

It has been known for sometime that some sheep are highly susceptible to scrapie whilst others appear to be relatively resistant. This susceptibility and resistance has been linked to one gene, the PrP gene, and it is possible to breed sheep to be relatively resistant to the disease based on their PrP genotype. In 1999 the Spongiform Encephalopathy Advisory Committee (SEAC) recommended in 'Report on Research and Surveillance for TSE in Sheep' that there be a long-term control and eradication programme for sheep TSEs<sup>1</sup>. This recommendation led directly to the launch in July 2001 of the National Scrapie Plan for Great Britain (NSP-GB) and in January 2003 to the Northern Ireland Scrapie Plan (NISPP). Both Plans are voluntary breeding programmes where sheep are bred for resistance to scrapie in an attempt to eradicate the disease from the national sheep flock.

The first element of the NSP-GB was a Ram Genotyping Scheme (RGS), also launched in July 2001, where rams from registered purebred (pedigree) flocks

<sup>1</sup> <http://www.seac.gov.uk/publicats/sub-rep.pdf>

are PrP genotyped and the most susceptible have to be either slaughtered or castrated. More details of how the different sheep genotypes can be used is provided in Table 1.

**Table 1:** PrP genotypes present in UK sheep and how each genotype can be used for breeding.

<b>Genotype</b>	<b>Type</b>	<b>Degree of resistance/susceptibility</b>
ARR/ARR	1	Sheep that are genetically most resistant to classical scrapie – no restriction on breeding
ARR/AHQ ARR/ARH ARR/ARQ	2	Sheep that are genetically resistant to classical scrapie, but will need careful selection when used for further breeding
AHQ/AHQ AHQ/ARH AHQ/ARQ ARH/ARH ARH/ARQ ARQ/ARQ	3	Sheep that genetically have little resistance to classical scrapie and will need careful selection when used for further breeding
ARR/VRQ	4	Sheep that are genetically susceptible to classical scrapie and should not be used for breeding unless in the context of a controlled breeding programme approved by NSPAC or DARD in Northern Ireland
VRQ/AHQ VRQ/ARH VRQ/ARQ VRQ/VRQ	5	Sheep that are highly susceptible to classical scrapie and should not be used for breeding

In January 2002 the Ram Genotyping Scheme was extended to purebred flocks that are not registered with a breed society.

When the NISP was launched in January 2003 it was targeted at both registered and non-registered purebred flocks, of which there are estimated to be 1,200 in Northern Ireland.

The GB National Scrapie Plan (NSP) Breeding Programme (Ram Genotyping Scheme and Flock Register), and equivalent Northern Ireland Breeding Programme, was reviewed during the second half of 2006, following a decision by the EU Council and Parliament to reject proposals for compulsory scrapie resistance testing in pure breed and pedigree flocks.

The review recommended that there should be a consultation on options for the future of the RGS - either a cost-shared genotyping scheme, or closure of the scheme<sup>2</sup> Consultation is taking place now as part of a wider consultation on responsibility and cost sharing in the animal health sector<sup>3</sup>.

On 5 April 2004 Great Britain launched a Voluntary Scrapie Flock Scheme (VSFS) for historically affected flocks. The scheme was open to all owners of

<sup>2</sup> <http://www.defra.gov.uk/news/2007/070130b.htm>

<sup>3</sup> <http://www.defra.gov.uk/corporate/consult/ahw-nextsteps/consultation-document.pdf>  
(paragraphs 8.8-9)



sheep flocks that had a reported case of scrapie that was confirmed between 1<sup>st</sup> July 1998 and 19<sup>th</sup> July 2004 when UK enforcement legislation of the EU compulsory measures applies (or 1<sup>st</sup> November in Wales). This voluntary Scheme involved genotyping all sheep on a farm to identify sheep carrying the most resistant ARR allele. The type of scrapie present on the farm, VRQ or non-VRQ scrapie, dictates what action will be taken on the farm. Where there was a need to buy replacement animals these were genotyped to ensure that they were of the most resistant genotypes.

This Scheme closed to new members at the end of March 2005 although genotyping in affected flocks could continue for up to 4 years from the date a flock entered the scheme.

The UK Compulsory Scrapie Flock Scheme, as part of the GB National Scrapie Plan and Northern Ireland Scrapie Plan, was launched on 20<sup>th</sup> July 2004 (1<sup>st</sup> November in Wales) to implement Commission Regulation 999/2001. This implements EU Regulation 999/2001 as amended and applies to sheep and goats.

The Compulsory Scrapie Flock Scheme applies to any flock or herd which has a reported and confirmed case of scrapie. Prior to summer 2007, the EU regulation allowed for only two options; whole flock/herd culling or whole flock genotyping and culling of sheep with scrapie susceptible genotypes and culling of all goats epidemiologically linked to the affected flock. As goats are not known to carry alleles that confer resistance to scrapie whole herd culling is the only option for affected or epidemiologically linked herds.

Following a whole flock/herd cull, restrictions for 3 years then apply regarding the animals that could be brought on to, used on and moved from the holding with TSE testing of a sample of culled and all fallen stock during that three year period. Or the holding can be left free of sheep and goats for three years from the date of culling and restock without restriction.

Whole flock genotyping will identify ARR homozygous sheep, the most resistant sheep to which no restrictions apply and ewes carrying the ARR allele and no VRQ. These ewes can be retained within the flock for breeding purposes or sold to other holdings under similar EU restrictions. Animals with at least one ARR allele, intended solely for slaughter, can be slaughtered for the food chain but all other animals will be subjected to compulsory slaughter orders and completely destroyed and compensation paid. The same TSE testing and movement and use restrictions apply. Prospective replacement animals will be genotype tested to ensure they have the required alleles. In the case of goats, they can be re-introduced to a scrapie affected holding immediately once cleaning and disinfecting of all animal housing has taken place and only ARR homozygous sheep and ewes with one ARR allele and no VRQ allele are present on or brought on to the holding with TSE testing of all culled and dead on farm animals over 18 months.

In July 2007, EU Regulation 727/2007 took effect. This reduced the restriction period from 3 years to 2 years and introduced additional – more proportionate- options in respect of holdings with confirmed classical scrapie (including the option of monitoring flocks). It also introduced the option of monitoring flocks/herds with atypical scrapie. However the EU Court of First

Instance has suspended that part of the Regulation that would allow Member States to apply the new options in respect of classical scrapie, pending a hearing in a case that France has taken against the Commission. This case is not likely to be resolved until 2009. For the present therefore, the only options in flocks/herds with classical scrapie remain whole flock/herd cull or whole flock genotyping and culling of sheep with scrapie susceptible genotypes.

Similar arrangements apply in Northern Ireland in respect of both the Voluntary Scrapie Flocks Scheme and the Compulsory Scrapie Flocks Scheme.

### **3. Description of the epidemiological situation of the disease**

Scrapie is a fatal neurological disorder of sheep and goats and is a member of the group of diseases known as transmissible spongiform encephalopathies (TSEs). It has been present in the UK national flock for over 250 years and approximately 600 reported cases of scrapie per year were reported in the UK in the years immediately prior to the FMD epidemic. Table 2 shows the number of scrapie cases reported in Great Britain (passive surveillance) and Table 3 shows the incidence in Northern Ireland. These figures are for both classical and atypical scrapie. Numbers of cases reported has declined in the last year or so. However it is believed that there is significant under reporting of scrapie, as indicated through the use of postal surveys

**Table 2:** Incidence of scrapie in Great Britain.

<b>Year</b>	<b>Cases Reported</b>
2007	79
2006	245
2005	568
2004	525
2003	439
2002	427
2001 <sup>a</sup>	295
2000	568
1999	598

<sup>a</sup>This was the year that the Foot and Mouth Disease outbreak occurred

**Table 3:** Incidence of Scrapie in Northern Ireland

<b>Year</b>	<b>Cases Reported</b>
2007	7
2006	18 <sup>4</sup>
2005	8 <sup>5</sup>
2004	2
2003	1
2002	0
2001	3

<sup>4</sup> 7 affected flocks in NI in 2006.

<sup>5</sup> 3 affected flocks in NI in 2005

2000	9
1999	1

From January 2002 to date a programme of active surveillance has been undertaken for scrapie in Great Britain. This survey involves testing slaughter sheep and goats over the age of 18 months at abattoirs and fallen goats and sheep also over 18 months. Table 4 shows the number of classical and atypical scrapie cases detected in GB from 2002 until the end of 2007 and Table 5 shows the Northern Ireland position

**Table 4:** Results of active surveillance from January 2002 up to December 2007 in GB.

2002-2007	Numbers tested	Classical scrapie	Atypical scrapie
Abattoir	199,824	116	142
Fallen stock	55,050	111	43
<b>Total</b>	<b>254,874</b>	<b>227</b>	<b>185</b>

**Table 5:** Results of active surveillance in Northern Ireland from January 2002 up to December 2007.

2002-2007	Numbers tested	Classical scrapie	Atypical scrapie
Abattoir	8402	3	3
Fallen stock	7925	5	2
CSFS Sampling	307	12	0
<b>Total</b>	<b>16634</b>	<b>20</b>	<b>5</b>

Over the past five years considerable data has been collected on the spread of genotypes in the GB national flock. To date approximately 65,000 flocks have been visited under the RGS and over 1.8 million samples have been sent to the laboratories (74,000 visits and 2.8 million samples in all NSP schemes).

Figure 1a shows the percentages of each genotype present in sheep genotyped in all GB NSP flocks - grouped together by NSP type (table 1 & figure 1 b below).

Figure 1a (GB NSP)

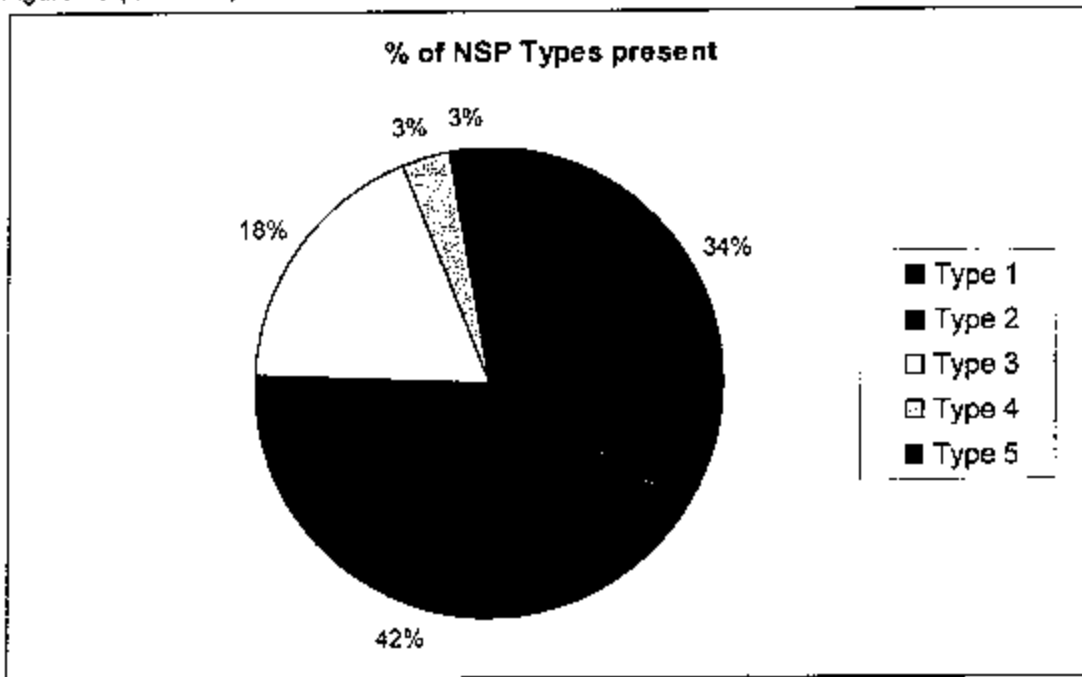


Figure 1b (GB NSP)

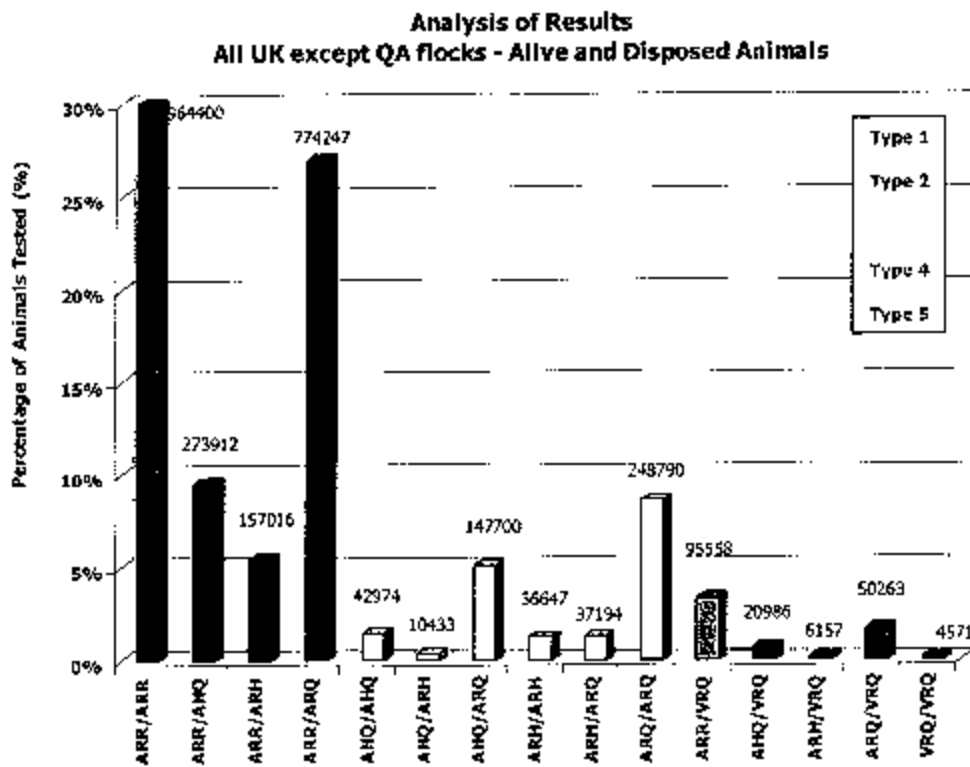
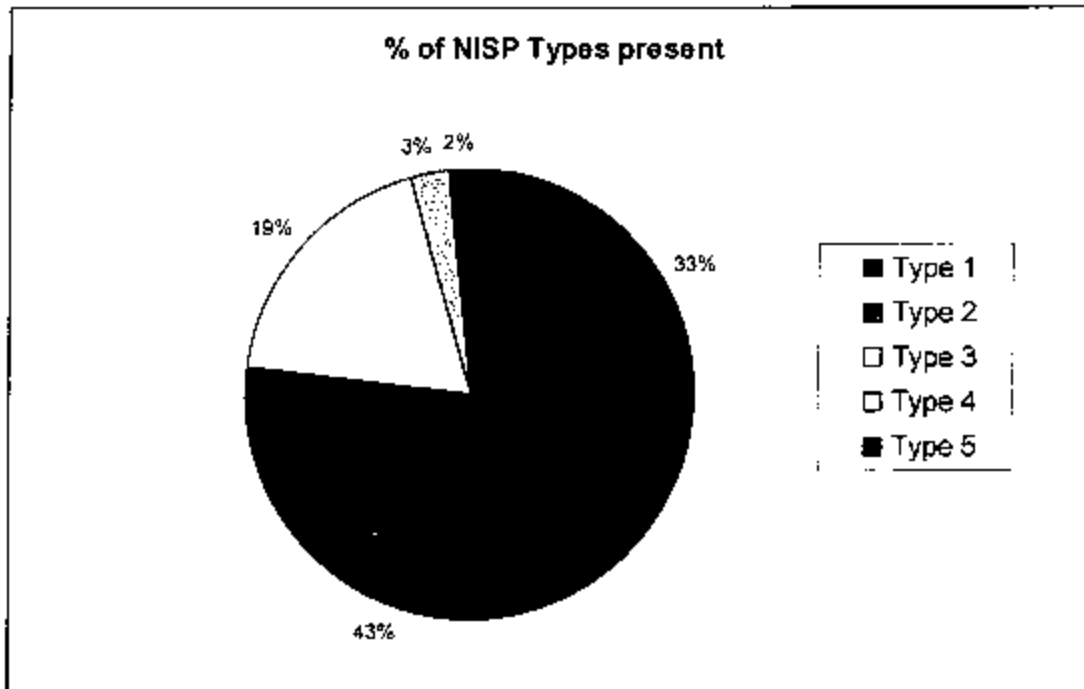


Figure 2 shows the percentages of each genotype present in 104,315 samples taken from 914 NISP registered flocks, grouped together by NISP type.

Figure 2 (NI NISP)



#### **4. Measure included in the programme**

##### **4.1. Designation of the central authority charged with supervising and co-ordinating the departments responsible for implementing the programme:**

The NSP-GB is operated by the Department for Environment, Food and Rural Affairs on behalf of the Scottish Government and the Welsh Assembly Government. NISP is operated by the Department of Agriculture and Rural Development – Northern Ireland.

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

NSP-GB operates in England, Scotland and Wales.

NISP operates in Northern Ireland.

##### **4.3. System in place for registration of holdings:**

IT system operated by Animal Health (formerly the State Veterinary Service) on behalf of those mentioned at 4.1. DARD is responsible for the registration of holdings in Northern Ireland.

##### **4.4. System in place for the identification of animals:**

As well as recording official ear tags applied in compliance with Community legislation, all genotyped animals in the NSP or NISP are bolused to allow electronic identification.

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

The Transmissible Spongiform Encephalopathies (No 2) Regulations 2006 and equivalent regulations in Scotland and Wales and the Transmissible Spongiform Encephalopathies Regulations (Northern Ireland) 2006.

**4.6. Monitoring:****4.6.1. Monitoring of Bovine animals:**

Not applicable

**4.6.2. and 4.6.3 Monitoring of Ovine and Caprine animals:**

Not applicable

**4.6.4 Discriminatory tests:**

Not applicable

**4.6.5 Genotyping of positive and randomly selected animals:**

Not applicable

**4.7. Eradication****4.7.1. Measures following confirmation of a BSE case:**

Not applicable.

**4.7.2.1 - Description - Measures following confirmation of a Scrapie case:**

The description below (and this application) only relate to the genotyping measures that will occur in Scrapie flocks.

On 5<sup>th</sup> April 2004 Defra launched a Voluntary Flock Scheme for flocks reporting scrapie between 1<sup>st</sup> July 1998 and July 19<sup>th</sup> 2004. Membership contracts are for a period up to a maximum of four years. The scheme closed to new members from 31 March 2005 and it is expected that the genotyping in member flocks will have concluded during 2008. Similar genotyping arrangements operated in Northern Ireland under the voluntary Scrapie Flocks Scheme.

From 20<sup>th</sup> July 2004 (1<sup>st</sup> November 2004 in Wales) a Compulsory Scrapie Flock Scheme has operated as required by Commission Regulation 999/2001 as amended. Again this involves genotyping all animals in a flock. Only animals with the ARR (no VRQ) allele are be retained. Animals with at least one ARR allele, intended solely for slaughter, can be slaughtered for the food chain but all other animals will be subjected to compulsory slaughter orders and completely destroyed and compensation paid. Again replacement animals need to be genotyped. Similar arrangements operate in Northern Ireland since the introduction of legislation on 4<sup>th</sup> October 2004.

**4.7.2.2. Summary Table for 2009**

Great Britain	Estimated Numbers
Animals to be killed under the requirements of Annex VII, Point 2 (b) of Regulation (EC) 999/2001:	13,860
Animals to be genotyped under the requirements of Annex VII, Point 2 (b) of Regulation (EC) 999/2001	17,000

<b>Northern Ireland</b>	<b>Estimated Numbers</b>
Animals to be killed under the requirements of Annex VII, Point 2 (b) of Regulation (EC) 99/2001	1000
Animals to be genotyped under the requirements of Annex VII, Point 2 (b) of Regulation (EC) 999/2001	2000

#### 4.7.3. Breeding programme for resistance to TSEs in sheep

##### 4.7.3.1 General description

The voluntary GB National Scrapie Plan (NSP) Breeding Programme (Ram Genotyping Scheme and Flock Register), and equivalent Northern Ireland Breeding Programme (NISP), was reviewed during the second half of 2006 and the review recommended that there should be a consultation on options for the future of the RGS - either a cost-shared genotyping scheme, or closure of the scheme. Consultation is taking place as part of a wider consultation on responsibility and cost sharing in the animal health sector<sup>6</sup>.

The current GB scheme will continue to test rams only pending the results of the consultation, while the Northern Ireland scheme will test rams and ewes as in previous years.

##### 4.7.3.2 Summary Table for 2009

The number of sheep that may be genotyped in 2009 is uncertain until the results of the above-mentioned consultation is known, possibly by Summer 2008 at which point revised estimates may be available.

<b>Great Britain</b>	<b>Estimated Numbers</b>
Ewes to be genotyped under the framework of a breeding programme as established in Commission Decision 2003/100/EC	0
Rams to be genotyped under the framework of a breeding programme as established in Commission Decision 2003/100/EC	55,000

<b>Northern Ireland</b>	<b>Estimated Numbers</b>
Ewes to be genotyped under the framework of a breeding programme as established in Commission Decision 2003/100/EC	10,000
Rams to be genotyped under the framework of a breeding programme as established in Commission Decision 2003/100/EC	10,000

<sup>6</sup> <http://www.defra.gov.uk/corporate/consult/ahw-nextsteps/consultation-document.pdf> (paragraphs 8.8-9)

### 5.1 Costs

We currently estimate that the costs for analysis of samples for genotyping in 2009 will be £800,880 and for compensation in 2009 will be £759,500, which includes £187,440 and £67,500 for NISP genotyping and compensation costs respectively and an application is hereby made under Decision 90/424/EEC for a contribution towards these costs.

### 5.2. Summary of Genotyping costs

National Scrapie Plan for GB		Northern Ireland Scrapie Plan	
Estimated Numbers	Estimated costs for genotyping	Estimated Numbers	Estimated costs for genotyping
72,000	£613,440	22,000	£187,440

### Compensation Costs

National Scrapie Plan for GB		Northern Ireland Scrapie Plan	
Estimated Numbers	Estimated costs for compensation	Estimated Numbers	Estimated costs for compensation
13,860	£692,000	1000	£67,500



#### 5.2.4. Genotyping – Great Britain

	<u>Method</u>	<u>Number of units</u>	<u>Unitary cost in £*</u>	<u>Total amount in £</u>	<u>Community funding requested (yes/no)</u>
4.1 Determination of genotype of animals in the framework of the eradication measures laid down by Regulation 999/2001	See section 2	17,000	various	£144,840	Yes
4.2 Determination of genotype of animals in the framework of a breeding programme as established in Commission Decision 2003/100/EC	See section 2	55,000	various	£468,600	Yes

\* Unit costs are deemed to be commercial in confidence and are therefore not included in this table

#### 5.2.4. Genotyping – Northern Ireland

	<u>Method</u>	<u>Number of units</u>	<u>Unitary cost in £*</u>	<u>Total amount in £</u>	<u>Community funding requested (yes/no)</u>
4.1 Determination of genotype of animals in the framework of the eradication measures laid down by Regulation 999/2001	See Section 2	2,000	various	£17,040	Yes
4.2 Determination of genotype of animals in the framework of a breeding programme as established in Commission Decision 2003/100/EC	See Section 2	20,000	various	£170,400	Yes

\* Unit costs are deemed to be commercial in confidence and are therefore not included in this table

#### 5.2.4. Genotyping – Total – United Kingdom

	<u>Method</u>	<u>Number of units</u>	<u>Unitary cost in £*</u>	<u>Total amount in £</u>	<u>Community funding requested (yes/no)</u>
4.1 Determination of genotype of animals in the framework of the measures laid down by Regulation 999/2001	See Section 2	19,000	various	£161,880	Yes
4.2 Determination of genotype of animals in the framework of a breeding programme as established in Commission Decision 2003/100/EC	See Section 2	75,000	various	£639,000	Yes

\* Unit costs are deemed to be commercial in confidence and are therefore not included in this table

#### 5.2.5. Compulsory Slaughter - Great Britain

	<u>Number of units</u>	<u>Unitary cost in £</u>	<u>Total amount in £</u>	<u>Community funding requested (yes/no)</u>
5.1 Compensation for animals to be killed under the requirements of Annex VII, Point 2 (b) of Regulation (EC) 999/2001	13,860	Adult = £90 for male, £65 for female Lambs = £40	£692,000	Yes

### 5.2.5. Compulsory Slaughter - Northern Ireland

	<u>Number of units</u>	<u>Unitary cost in £</u>	<u>Total amount in £</u>	<u>Community funding requested (yes/no)</u>
5.1 Compensation for animals to be killed under the requirements of Annex VII, Point 2 (b) of Regulation (EC) 999/2001	1000	Adult = £90 for male, £65 for female  Lambs = £50	£67,500	Yes

### 5.2.5 Compulsory Slaughter – Total - United Kingdom

	<u>Number of units</u>	<u>Unitary cost in £</u>	<u>Total amount in £</u>	<u>Community funding requested (yes/no)</u>
5.1 Compensation for animals to be killed under the requirements of Annex VII, Point 2 (b) of Regulation (EC) 999/2001	14,860	See previous table for rates applicable in GB and NI.	£759,500	Yes

