



REPORT ON THE MONITORING
AND TESTING OF RUMINANTS
FOR THE PRESENCE OF TRANSMISSIBLE
SPONGIFORM ENCEPHALOPATHY (TSE)
IN THE EU IN 2003,
INCLUDING THE RESULTS OF THE SURVEY
OF PRION PROTEIN GENOTYPES IN SHEEP BREEDS



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EUROPEAN COMMISSION
HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL

Directorate D - Food Safety: production and distribution chain
D2 – Biological risks

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FOR THE PRESENCE OF TRANSMISSIBLE SPONGIFORM
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SHEEP BREEDS**

May 2004

INTRODUCTION

I am delighted to present here the 2003 report on the monitoring and testing of cattle, sheep and goats for the presence of transmissible spongiform encephalopathy (TSE) in the European Union.

Since the start of an expanded monitoring programme on bovine spongiform encephalopathy (BSE) in 2001, more than 30 million cattle have been tested, in addition to those tested as BSE suspects. The surveillance involves active monitoring of healthy slaughtered cattle, risk animals such as fallen stock and cattle with an epidemiological link to known BSE cases. It ensures that no BSE cases are slaughtered for human consumption, thus further increasing the safety of beef. In addition, the monitoring provides a reliable insight into the prevalence and evolution of BSE in the Member States.

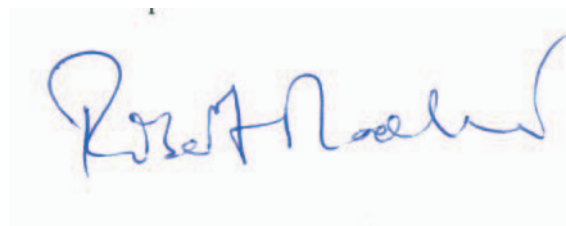
The monitoring programme in 2003 was very similar to the programme in 2002 in the current Member States, allowing comparisons between both years within the same target group (e.g. healthy slaughtered cattle) and within the same age group. Overall, the BSE situation has improved considerably, showing the effect of measures taken in the past. However, given the long incubation period of BSE it will take many years still before we can hope for a complete eradication of BSE.

The report furthermore summarises the results of TSE monitoring in small ruminants in 2003 and of the survey of prion protein genotypes in sheep breeds.

The report is based on information submitted voluntarily by the Member States on a monthly basis. I am particularly pleased that even in 2003 25 countries reported the results of their active monitoring. An increasing number of tests were performed in 2003 in the new Member States.

I would like to thank all Member States for making this report possible. Our combined efforts have enhanced the understanding of the epidemiology of TSEs. They also provide a solid basis for the determination of the future direction of our policies to protect animal and human health.

I hope that this report will provide useful data to all interested parties.

A handwritten signature in blue ink, appearing to read 'R. Madelin', is centered on the page. The signature is fluid and cursive.

R. Madelin
Director-General

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LIST OF ACRONYMS

AM :	Ante-mortem inspection
BSE :	Bovine spongiform encephalopathy
DNA :	Deoxyribonucleic acid
EU15 :	The 15 countries, member of the European Union before 1 May 2004
EU15-UK :	The EU15 except the United Kingdom
EU25 :	The 25 countries, member of the European Union since 1 May 2004
EU25-UK :	The EU25 except the United Kingdom
MIO :	Million
MS:	Member States the European Union
Na:	not available
nMS :	The 10 countries, new Members of the European Union from 1 May 2004 on
NSP :	National scrapie plan
OTM :	Over thirty months
TSE:	Transmissible spongiform encephalopathy

See also list of ISO codes for countries on page 5.

1. SUMMARY

In 2003, a total of 10.041.295 bovine, 488.119 ovine and 63.022 caprine animals were tested in the EU15 in the framework of the TSE monitoring programme. 1.364 bovine, 1.787 ovine and 46 caprine animals turned out positive. The positive cases in bovine animals were considered as BSE cases, while those in ovine and caprine animals as scrapie.

1.295.769 risk bovine animals and 8.716.481 healthy animals slaughtered for human consumption were tested by rapid tests. 2.578 bovine animals were tested in the framework of passive surveillance (animals reported as BSE suspects by the farmer or the veterinary practitioner and subject to laboratory examination). In addition, 24.966 animals were tested in the framework of culling of animals with an epidemiological connection to a BSE case. 78% of positive cases were detected by the active monitoring (testing of risk animals, healthy slaughtered and culled cattle) and 22% were detected by passive surveillance. BSE cases were found in all Member States except Austria, Greece, Luxembourg, Finland and Sweden. The number of BSE cases and the overall prevalence in tested animals decreased by respectively 36% and 34% in 2003 compared to 2002. The most significant decrease was in risk animals. The number of cases in animals tested below 60 months decreased by 32%. These reductions and the increasing age of positive cases indicate that measures taken in the past are having some effect.

486.822 ovine animals were tested by active monitoring, while 1.297 were animals reported as scrapie suspects and therefore subjected to laboratory examination. In caprine animals, the numbers of tests in the respective groups were 62.957 (active monitoring) and 65 (scrapie suspects). The information on the genotypes of TSE positive, random sampled and pure-bred ovine animals is a major tool to decide how to progress in TSE eradication programs in these animals.

In addition, information was forwarded to the Commission on TSE testing of 945.042 bovine animals in the 10 new Member States and of 7.754 TSE tests in ovine and caprine animals in the Czech and Slovak Republic. BSE cases were detected in Poland, the Slovak Republic, the Czech Republic and Slovenia. Furthermore, Norway forwarded information on the TSE testing of bovine, ovine and caprine animals.

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2. MONITORING PROGRAMMES, SAMPLING AND TEST METHODS

2.1 LEGAL BASIS

During the year 2003, the legal framework for the **monitoring of ruminants** for the presence of TSE was laid down in Chapter A of Annex III in Regulation (EC) No 999/2001¹ of the European Parliament and of the Council laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies (the TSE Regulation), as amended by Commission Regulation (EC) No 1494/2002². Amendments to the monitoring of small ruminants in Chapter A, applicable from 1 October 2003 on, were introduced by Commission Regulation (EC) No 1139/2003³. The EU legislation on TSE monitoring is summarised in Table 1.

The legal basis for the **sample collection and for the test methods** was Chapter C of Annex X in Regulation (EC) No 999/2001.

Finally, the legal basis for the **survey of prion protein genotypes of TSE cases in sheep, of random sampled sheep and of pure sheep breeds** are points 7.1 and 7.2 to Chapter A in Annex III of the TSE Regulation, and Article 2 of Commission Decision 2002/1003/EC⁴ respectively.

2.2 BSE MONITORING OF BOVINE ANIMALS

The monitoring of bovine animals for the presence of BSE was divided into the following target groups:

- (1) **Fallen stock:** Bovine animals which have died or have been killed on the farm or in transport, but not slaughtered for human consumption nor killed in the framework of an epidemic. Member States may decide to derogate from this provision in remote areas with a low animal density, where no collection of dead animals is organised. The derogation shall not cover more than 10% of the bovine population in the Member State.
- (2) **Emergency slaughtered animals:** Bovine animals subject to “Special emergency slaughtering” as defined in Article 2 of Council Directive 64/433/EEC⁵ as amended.
- (3) **Animals with clinical signs at AM:** Bovine animals sent for normal slaughter but the slaughter of which was deferred because they were:
 - (a) suspected of suffering from a disease which is communicable to man and to animals or showing symptoms or being in a general condition such as to indicate that such a disease may occur.
 - (b) Showing symptoms of a disease or of a disorder of their general conditions which is likely to make their meat unfit for human consumption.
(as referred to in Directive 64/433/EEC, Annex I, Chapter VI, points 27-28)

¹ OJ L 147, 31.5.2001, p 1.

² OJ L 225, 22.8.2002, p 3.

³ OJ L 160, 28.6.2003, p. 22

⁴ OJ L 41, 14.2.2003, p. 41

⁵ OJ L 121, 29.7.1964, p. 2012

- (4) **Healthy slaughtered animals:** Bovine animals subject to normal slaughter for human consumption and animals without clinical signs of disease slaughtered in the context of a disease eradication campaign other than BSE. Sweden was allowed to test only a random sample.
- (5) **Animals culled under BSE eradication:** birth cohorts (bovine cattle born in a herd within 1 year before or after the birth of a BSE case), rearing cohorts (bovine animals reared together with a BSE case during the first year of their life), offspring and any other bovine animals killed because of an epidemiological link to a BSE case.
- (6) **Suspects** subject to laboratory examination: Bovine animals reported as suspects of TSE as defined in Article 3(h) of Regulation 999/2001 and subject to the measures described in Articles 12 and 13 of this Regulation.

In the United Kingdom, bovine animals over 30 months (OTM) were purchased for destruction pursuant to Regulation 716/96¹. All these animals were tested if subject to emergency slaughter or showing clinical signs of any disease at ante-mortem. In addition, a part of the healthy slaughtered animals were tested (see Table 1).

Table 1: Summary of the EU legislation on TSE monitoring in 2003

	EU15 Except SV and UK	SV	UK
Legal provisions	Regulation (CE) No 999/2001 as amended	Regulation (CE) No 999/2001 as amended	Regulation (CE) No 999/2001 as amended Regulation (CE) No 716/96.
Bovine animals			
Special emergency slaughter	All > 24 months		
Clinical signs at ante-mortem inspection	All > 24 months		
Fallen stock	All > 24 months		
Animals slaughtered for human consumption	All >30 months	Random sample comprising at least 10.000 animals >30 months	All > 30 months
BSE suspects	All	All	All
Other			Animals slaughtered under the OTM scheme All animals >30 months subject to "special emergency slaughter", with clinical signs at ante-mortem or born after 1/8/96 and > 42 months old Random sample comprising at least 10.000 animals of remaining animals (born before 1/8/96).
Ovine and caprine animals			
Animals slaughtered for human consumption	Minimal sample size in ovine and caprine animals > 18 months		
Animals not slaughtered for human consumption	Minimal sample size in ovine and caprine animals > 18 months		
Animals in infected flocks (voluntary until 1 October 2003)	Minimal sample size in ovine and caprine animals > 12 months or which have a permanent incisor erupted though the gum		
Other than bovine, ovine and caprine animals: voluntary			

¹ OJ L 99. 20.04.1996, p. 14

2.3 TSE MONITORING OF OVINE AND CAPRINE ANIMALS

The testing of ovine and caprine animals for the presence of TSE was divided into the following target groups:

- (1) Healthy animals over 18 months of age which are slaughtered for human consumption .
- (2) Risk animals containing almost exclusively fallen stock, with a few emergency slaughtered animals and animals with clinical signs at AM which have died or been killed, but which were not killed in the framework of an epidemic or slaughtered for human consumption.
- (3) Animals culled under scrapie eradication. The testing of a minimum random sampled number of these animals became mandatory from 1 October 2003 on by Commission Regulation (EC) No 1139/2003 amending Regulation (EC) No 999/2001.
- (4) Scrapie suspects subject to laboratory examination.

In Portugal, animals slaughtered in the context of a disease eradication campaign were also monitored and included in the total figures but not added to one of the above target groups.

2.4 SAMPLING AND TESTING FOR TSE MONITORING

Samples collected in the context of active monitoring (risk animals, healthy slaughtered animals and animals culled in the framework of TSE eradication) were screened by one of the three (until July 2003) or five (from July 2003 on) approved rapid tests. Confirmation tests from inconclusive or positive results in the active monitoring and analysis of samples from suspects were performed by histopathology or, if appropriate, by immunocytochemistry, immunoblotting or by demonstration of characteristic fibrils by electron microscopy.

2.5 GENOTYPING OF OVINE ANIMALS

The genotyping of ovine animals was conducted under the following categories:

- (1) TSE positive animals.
- (2) The crossbreed survey – a random sample selected from the healthy animals over 18 months of age slaughtered for human consumption or live animals of a similar age.
- (3) The purebred survey – a representative sample of ovine animals from each breed, drawn from flocks of high genetic merit. This report also represents the summary of reports referred to in Article 4 of Commission Decision 2002/1003/EC.

2.6 SAMPLING AND TESTING FOR THE PRION PROTEIN GENOTYPE

The alleles were defined by reference to the amino acids encoded by codons 136, 154 and 171 of the prion protein gene. Routine methods for the collection of samples and DNA genotyping were used.

3. REPORTS FORWARDED TO THE COMMISSION

The Commission invited the Member States of the EU25 in the Standing Committee on the Food Chain and Animal Health to provide monthly data on TSE testing on a voluntary basis. The names of the Member States are quoted in this report in their own language.

Name	ISO Code	English	Français	Deutsch
Member States of the EU15				
Belgique/België	BE	Belgium	Belgique	Belgien
Danmark	DK	Denmark	Danemark	Dänemark
Deutschland	DE	Germany	Allemagne	Deutschland
Ellas	EL	Greece	Grèce	Griechenland
España	ES	Spain	Espagne	Spanien
France	FR	France	France	Frankreich
Ireland	IE	Ireland	Irlande	Irland
Italia	IT	Italy	Italie	Italien
Luxembourg	LU	Luxembourg	Luxembourg	Luxemburg
Nederland	NL	Netherlands	Pays-Bas	Niederlande
Österreich	AT	Austria	Autriche	Österreich
Portugal	PT	Portugal	Portugal	Portugal
Suomi/Finland	FI	Finland	Finlande	Finnland
Sverige	SV	Sweden	Suède	Schweden
United Kingdom	UK	United Kingdom	Royaume-Uni	Vereinigtes Königreich
New Member States (nMS)				
Česká Republika	CZ	Czech Republic	République tchèque	Tschechische Republik
Eesti	EE	Estonia	Estonie	Estland
Kypros	CY	Cyprus	Chypre	Zypern
Latvija	LV	Latvia	Lettonie	Lettland
Lietuva	LT	Lithuania	Lituanie	Litauen
Magyarország	HU	Hungary	Hongrie	Ungarn
Malta	MT	Malta	Malte	Malta
Polska	PL	Poland	Pologne	Polen
Slovenija	SI	Slovenia	Slovénie	Slowenien
Slovenská Republika	SK	Slovak Republic	République Slovaque	Slowakische Republik

In addition, Norway (NO) forwarded monthly reports.

The Commission requested, per species, information on:

1. Positive cases detected during the reporting period: month of birth, target group, diagnostic method used for screening and diagnostic method used for confirmation.
2. Monitoring carried out during the reporting period: number of samples, number of positive results, number of negative results, number of tests pending and age limit for each target group.
3. The results of the epidemiological investigation in BSE cases born after 1 January 1996.
4. Genotypes of confirmed TSE cases in ovine animals and of random sampled and culled ovine animals. Reporting of the genotype survey in sheep breeds was mandatory in the Member States of the EU15 in accordance with Article 3 of Commission Decision 2002/1003/EC.

The above-mentioned target groups were divided into the following categories:

- (1) Bovine animals:
- (a) Active Monitoring
- Fallen stock
 - Emergency slaughtered
 - Animals with clinical signs at AM
 - Healthy slaughtered animals
 - Animals culled in connection to a BSE case.

Fallen stock, emergency slaughtered animals and animals with clinical signs at ante-mortem inspection are considered as “risk animals”.

- (b) Passive Surveillance
- Animals reported as BSE suspects by the farmer or the veterinary practitioner and subject to laboratory examination.

The age limits used in testing different target groups of bovine animals are summarised in Table 2.

Table 2: Age limits used in sampling of bovine animals

	Age limit					
	Fallen Stock	Emergency slaughtered	Clinical signs at AM	Healthy slaughtered	BSE culling	BSE suspects
Belgique/belgië	> 24 months ¹	> 24 months ¹	> 12 months	> 30 months ¹	> 24 months	No age limit
Danmark	> 24 months			> 30 months	> 24 months	No age limit
Deutschland	Compulsory testing > 24 months, voluntary testing < 24 months				No age limit	No age limit
Ellas	> 24 months	> 24 months	No age limit	> 30 months	No age limit	No age limit
España	> 24 months				No age limit	No age limit
France	> 24 months					No age limit
Ireland	> 24 months			> 30 months	> 30 months	No age limit
Italia	> 24 months				No age limit	No age limit
Luxembourg	> 24 months			> 30 months	> 24 months	No age limit
Nederland	> 24 months			> 30 months	No age limit	No age limit
Österreich	> 24 months ¹	> 24 months ¹	> 24 months	> 30 months ¹	No age limit	No age limit
Portugal	> 24 months			> 30 months	> 30 months	No age limit
Suomi/Finland	> 24 months			> 30 months	No age limit	No age limit
Sverige	> 24 months			> 30 months	No age limit	No age limit
United Kingdom	> 24 months			> 30 months	No age limit	No age limit
Česká Republic	> 24 months			> 30 months	No age limit	No age limit
Eesti	> 24 months			> 30 months	No age limit	No age limit
Kypros	> 24 months			> 30 months	No age limit	No age limit
Latvija	> 24 months			> 30 months	No age limit	No age limit
Lietuva	> 24 months			> 30 months	No age limit	No age limit
Magyarország	> 24 months			> 30 months	No age limit	No age limit
Malta	> 24 months			> 30 months	No age limit	No age limit
Polska	> 24 months			> 30 months	No age limit	No age limit
Slovenija	> 24 months			> 24 months	No age limit	No age limit
Slovenská Rep.	> 24 months			> 30 months	No age limit	No age limit
Norway	> 24 months			> 30 months	No age limit	No age limit

¹ A limited number of samples were collected in younger bovine animals.

(2) Ovine and caprine animals

(a) Active Monitoring

- Risk animals containing almost exclusively fallen stock with a few tests in emergency slaughtered animals and animals with clinical signs at AM;
- Healthy slaughtered animals;
- Animals culled in a herd where an animal has been declared TSE positive.

(b) Passive Surveillance

Animals reported as scrapie suspects by the farmer or the veterinary practitioner and subject to laboratory examination.

At the end of 2003, the Commission invited the Member States to provide data on a voluntary basis on the age structure of the tested bovine animals, separated per semester and per target group.

All this information has been introduced and processed in a database in order to summarise the information provided and to elaborate summary tables to be distributed within the Commission and to the Member States and Norway.

4. SUMMARY OF THE BSE TESTING IN BOVINE ANIMALS DURING 2003

The information was extracted directly from the monthly reports. The monthly information is often updated and/or corrected by the Member States in the following reports. The information shown in the following summaries is updated according to the information received on 1 May 2004.

Information on the population was obtained from Eurostat. The mean population of bovine animals of 2 years and over in June and December 2003 were considered as the mean adult population in 2003.

4.1 SAMPLING

Table 3: Total tests performed in 2003 per Member State and target group

	Number of tests performed						Total
	BSE culling	Clinical signs ad AM	Emergency Slaughter	Fallen Stock	Healthy Slaughter	BSE suspects	
Belgique/België	1.126	83	1.214	33.691	356.184	167	392.465
Danmark	1.774	17	1.739	35.576	250.558	38	289.702
Deutschland	1.125	3.254	5.679	240.556	2.337.605	854	2.589.073
Ellas	0	74	127	1.798	24.533	1	26.533
España	2.356	1.810	1.457	90.916	471.252	73	567.864
France	1.669	0	0	283.695	2.920.157	442	3.205.963
Ireland	11.986	0	2.483	84.954	600.586	330	700.339
Italia	2.148	54.674	5.217	64.159	658.770	63	786.506
Luxembourg	2	0	27	3.083	14.598	4	17.714
Nederland	954	14.043	1.375	50.525	439.403	25	506.325
Österreich	0	0	3.755	13.235	205.658	2	222.650
Portugal	1.271	5.521	1.562	19.310	81.633	102	109.399
Suomi/Finland	0	4.216	8.087	10.899	108.198	5	131.430
Sverige	0	0	2.229	22.479	9.856	16	34.580
United Kingdom	555	18	145.651	76.582	237.490	456	460.752
Total EU15	24.966	83.710	180.602	1.031.458	8.716.481	2.578	10.041.295
Česká Republika	706	156	43.640	32.635	133.046	1	210.184
Eesti	0	0	1.549	2.415	19	0	3.983
Kypros	0	22	135	1.168	6.401	0	7.726
Latvija	0	0	263	1.014	4.838	11	6.126
Lietuva	0	28	113	2.187	7.418	0	9.746
Magyarország	0	0	4.263	6.532	86.595	98	97.488
Malta*	0	0	40	70	1.089	0	1.199
Polska	37	59	9.401	17.413	428.452	51	455.413
Slovenija	27	2.866	399	8.092	54.751	32	66.167
Slovenská Republika	11	75	8.269	13.461	65.192	2	87.010
New Member States	781	3.206	68.072	84.987	787.801	195	945.042
Norway	0	4.102	7.322	1.872	10.726	2	24.024
Total EU25	25.747	86.916	248.674	1.116.445	9.504.282	2.773	10.986.337

* March until September

Table 4: Active monitoring in relation to the adult population ≥ 2 years of age)

	Adult cattle (x1000)*	Risk animals		Healthy Slaughtered	
		No. Tests	% tests/adult cattle	No. Tests	% tests/adult cattle
Belgique/België	1.424	34.988	2,46%	356.184	25,0%
Danmark	834	37.332	4,48%	250.558	30,0%
Deutschland	6.170	249.489	4,04%	2.337.605	37,9%
Ellas	325	1.999	0,62%	24.533	7,5%
España	3.530	94.183	2,67%	471.252	13,3%
France	10.817	283.695	2,62%	2.920.157	27,0%
Ireland	3.220	87.437	2,72%	600.586	18,7%
Italia	2.966	124.050	4,18%	658.770	22,2%
Luxembourg	95	3.110	3,27%	14.598	15,4%
Nederland	1.770	65.943	3,73%	439.403	24,8%
Österreich	969	16.990	1,75%	205.658	21,2%
Portugal	779	26.393	3,39%	81.633	10,5%
Suomi/Finland	396	23.202	5,86%	108.198	27,3%
Sverige	678	24.708	3,64%	9.856	1,5%
United Kingdom	4.919	222.251	4,52%	237.490	4,8%
Total EU15	38.892	1.295.770	3,33%	8.716.481	22,4%
Česká Republika	683	76.431	11,19%	133.046	19,5%
Eesti	129	3.964	3,07%	19	0,01%
Kypros	27	1.325	4,91%	6.401	23,7%
Latvija	203	1.277	0,63%	4.838	2,4%
Lietuva	491	2.328	0,47%	7.418	1,5%
Magyarország	404	10.795	2,67%	86.595	21,4%
Malta**	8	110	1,38%	1.089	13,6%
Polska	3175	26.873	0,85%	428.452	13,5%
Slovenija	214	11.357	5,31%	54.751	25,6%
Slovenská Rep.	287	21.805	7,60%	65.192	22,7%
nMS	5621	156.265	2,78%	787.801	14,0%
Norway	404	13.296	3,29%	10.726	2,7%
Total EU25	44.513	1.452.035	3,26%	9.504.282	21,4%

* Eurostat: mean of May-June and December 2003

** March until September

Table 5: Comparative active monitoring 2003 versus 2002

	Healthy Slaughtered			Risk animals			Total active monitoring		
	2002	2003	Δ	2002	2003	Δ	2002	2003	Δ
Belgique/België	408.934	356.184	-13%	37.929	34.988	-8%	450.140	392.298	-13%
Danmark	254.668	250.558	-2%	35.995	37.332	4%	293.303	289.664	-1%
Deutschland	2.767.958	2.337.605	-16%	259.612	249.489	-4%	3.030.196	2.588.219	-15%
Ellas	21.457	24.533	14%	2.256	1.999	-11%	23.735	26.532	12%
España	454.132	471.252	4%	86.380	94.183	9%	545.985	567.791	4%
France	2.896.182	2.920.157	1%	271.727	283.695	4%	3.183.790	3.205.521	1%
Ireland	610.002	600.586	-2%	78.372	87.437	12%	707.033	700.009	-1%
Italia	623.913	658.770	6%	103.539	124.050	20%	731.486	786.443	8%
Luxembourg	16.443	14.598	-11%	1.941	3.110	60%	18.384	17.710	-4%
Nederland	491.069	439.403	-11%	64.321	65.943	3%	558.390	506.300	-9%
Österreich	215.075	205.658	-4%	13.564	16.990	25%	228.639	222.648	-3%
Portugal	66.721	81.633	22%	14.193	26.393	86%	82.077	109.297	33%
Suomi/Finland	114.669	108.198	-6%	22.333	23.202	4%	137.002	131.425	-4%
Sverige	12.073	9.856	-18%	25.398	24.708	-3%	37.471	34.564	-8%
United Kingdom	170.907	237.490	39%	221.054	222.251	1%	392.906	460.296	17%
Total EU 15	9.126.205	8.716.481	-4%	1.240.616	1.295.770	4%	10.424.541	10.038.717	-4%

Comments on the sampling

The monitoring programme carried out in 2003 was similar to the programme carried out in 2002. Therefore the differences in the number of tests in different target groups are minor. Almost 30 million cattle have been tested by active monitoring in the EU15 since 2001. The percentage of tested risk animals and healthy slaughtered cattle compared to the adult population (Table 4) should be interpreted with caution as certain Member States were running different monitoring programmes (only random sampling in Sweden, the purchase for destruction scheme of healthy slaughtered cattle in the UK without obligatory testing), as additional voluntary testing of younger cattle occurred in certain Member States and as there may be a difference in risk animals, including fallen stock, per year in relation to the population because of different production systems. The increased effort of certain Member States in 2003 compared to 2002 to monitor risk animals (see Table 5) and the efforts of new Member States to carry out active monitoring are appreciated.

4.2 POSITIVE CASES

Table 6: Evolution of positive cases world-wide since BSE was recognised

Country	<1988	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Belgique/België	0	0	0	0	0	0	0	0	0	0	1	6	3	9	46	38	15	118
Danmark	0	0	0	0	0	1 ^(a)	0	0	0	0	0	0	0	1	6	3	2	13
Deutschland	0	0	0	0	0	1 ^(a)	0	3 ^(a)	0	0	2 ^(a)	0	0	7	125	106	54	298
Ellas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
España	0	0	0	0	0	0	0	0	0	0	0	0	0	2	82	134	173	391
France	0	0	0	0	5	0	1	4	3	12	6	18	31 ^(b)	162	277	240	138	897
Ireland	0	0	15 ^(b)	14 ^(b)	17 ^(b)	18 ^(b)	16	19 ^(b)	16 ^(b)	74	80	83	95	149	246	333	185	1,360
Italia	0	0	0	0	0	0	0	2 ^(a)	0	0	0	0	0	0	50	36 ^(b)	31	119
Luxembourg	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
Nederland	0	0	0	0	0	0	0	0	0	0	2	2	2	2	20	24	19	71
Österreich	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Portugal	0	0	0	1 ^(a)	1 ^(a)	1 ^(a)	3 ^(a)	12	15	31	30	127	159	150 ^(b)	113	86 ^(b)	133 ^(b)	862
Suomi/Finland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
Total EU15- UK	0	0	15	15	23	21	20	40	34	117	122	236	290	482	968	1,001	750	4,134
United Kingdom	442	2,473	7,166	14,294	25,202	37,056	34,829	24,290	14,475	8,090	4,335	3,197	2,281	1,428	1,194	1,130	614	182,495
Total EU15	442	2,473	7,181	14,309	25,225	37,077	34,849	24,330	14,509	8,207	4,457	3,433	2,571	1,910	2,162	2,131	1,364	186,630
Ceská Republika	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	4	8
Polska	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	5	9
Slovenija	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	3
Slovenská Rep.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	6	2	13
Total nMS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	13	12	33
Island of Man	0	6	6	22	67	109	111	55	33	11	9	5	3	0	0	0	0	437
Jersey	0	1	4	8	15	23	35	22	10	12	5	8	6	0	0	0	0	149
Guernsey	4	34	52	83	75	92	115	69	44	36	44	25	11	13	2	0	0	699
Switzerland	0	0	0	2	8	15	29	64	68	45	38	14	50	33	42	24	21	453
Rest of the world	0	0	3 ^(a)	0	0	0	1 ^(a)	0	0	0	0	2 ^(a)	0	0	3	3	6	18
Total world	446	2,514	7,246	14,424	25,390	37,316	35,140	24,540	14,664	8,311	4,553	3,487	2,641	1,956	2,217	2,171	1,403	188,419

Sources: <1997: OIE; From 1997: Systematic notification of animal diseases by MS, completed by monthly reports of the UK and Portugal and, since 2001, of the other MS; websites of the competent national authorities and the OIE.

^(a) All imported cases.

^(b) Including imported cases: Ireland: 1 in 1990, in 1994 and in 1995, 2 in 1991 and 1992, 5 in 1989; France: 1 in 1999; Portugal: 1 in 2000, 2002 and 2003; Italy: 1 in 2002.

Chart 1: Evolution of BSE detected by passive surveillance and active monitoring in the UK

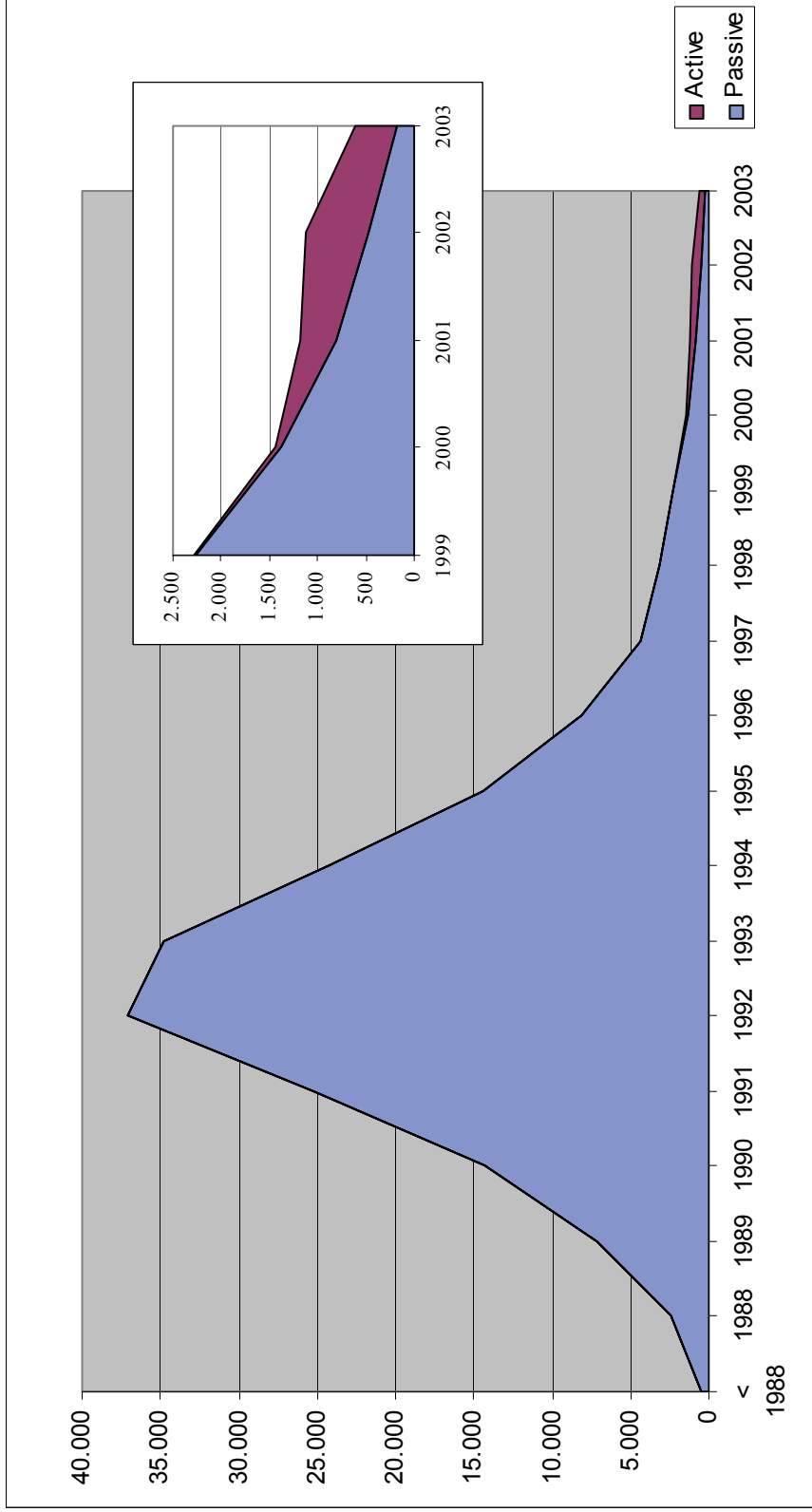


Chart 2: Evolution of BSE detected by passive surveillance and active monitoring in the rest of the EU25

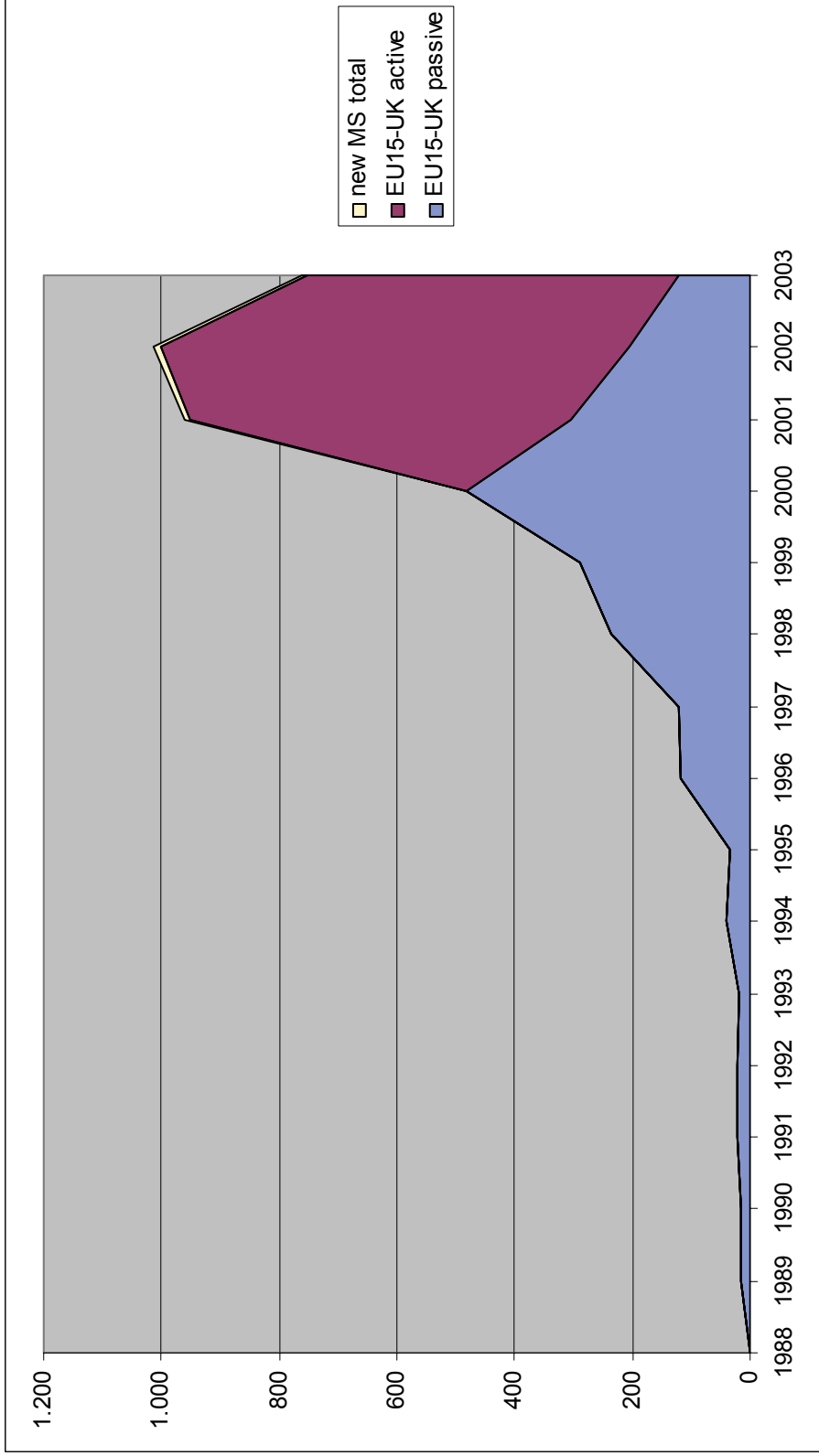


Table 7: Total positive cases per number of cattle tested or present in the adult population (> 24 months of age)

	Adult cattle (x1000)*	Tests No.	Positives	Ratio ¹	Prevalence ²	
					Passive Surveill.	Total Monit.
Belgique/België	1 424	392.465	15	0,38	0,00	10,53
Danmark	834	289.702	2	0,07	1,20	2,40
Deutschland	6 170	2.589.073	54	0,21	1,62	8,75
Ellas	325	26.533	0	0,00	0,00	0,00
España	3 530	567.864	173	3,05	7,08	49,01
France	10 817	3.205.963	138	0,43	1,11	12,76
Ireland	3 220	700.339	185	2,64	12,73	57,45
Italia	2 966	786.506	31	0,39	0,34	10,45
Luxembourg	95	17.714	0	0,00	0,00	0,00
Nederland	1 770	506.325	19	0,38	1,13	10,73
Österreich	969	222.650	0	0,00	0,00	0,00
Portugal	779	109.399	133	12,16	35,94	170,73
Suomi/Finland	396	131.430	0	0,00	0,00	0,00
Sverige	678	34.580	0	0,00	0,00	0,00
United Kingdom	4 919	460.752	614	13,33	37,81	124,82
Total EU 15	38.892	10.041.295	1.364	1,36	7,87	35,07
Česká Republika	683	210.184	4	0,19	0,00	5,86
Eesti	129	3.983	0	0,00	0,00	0,00
Kypros	27	7.726	0	0,00	0,00	0,00
Latvija	203	6.126	0	0,00	0,00	0,00
Lietuva	491	9.746	0	0,00	0,00	0,00
Magyarország	404	97.488	0	0,00	0,00	0,00
Malta**	8	1.199	0	0,00	0,00	0,00
Polska	3175	455.413	5	0,11	0,31	1,57
Slovenija	214	66.167	1	0,15	0,00	4,67
Slovenská Rep.	287	87.010	2	0,23	0,00	6,97
nMS	5621	945.042	12	0,13	0,18	2,13
Norway	404	24.024	0	0,00	0,00	0,00
Total EU25	44.513	10.986.337	1.376	1,25	6,90	30,91

¹ : Positives per 10.000 bovine animals tested
² : Cases over the last 12 months per 1 Million adult bovine animals
* Eurostat: mean of May-June and December 2003
** March until September

Map 1: European Countries where positive cases were detected in 2003

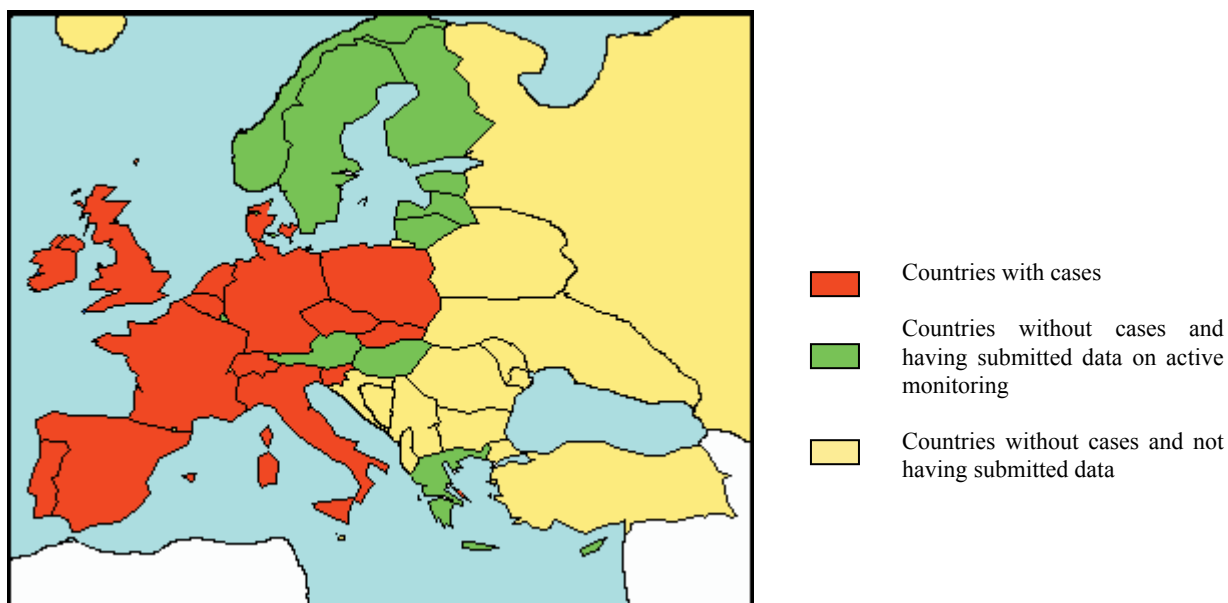


Table 8: Positives in active monitoring and passive surveillance

	Active monitoring			Passive surveillance			Percentage of cases detected by active monitoring
	Tests No.	Positive	Ratio*	Tests No.	Positive	Ratio*	
Belgique/België	392.298	15	0,38	167	0	0,0	100%
Danmark	289.664	1	0,03	38	1	263,2	50%
Deutschland	2.588.219	44	0,17	854	10	117,1	81%
Ellas	26.532	0	0,00	1	0	0,0	
España	567.791	148	2,61	73	25	3.424,7	86%
France	3.205.521	126	0,39	442	12	271,5	91%
Ireland	700.009	144	2,06	330	41	1.242,4	78%
Italia	786.443	30	0,38	63	1	158,7	97%
Luxembourg	17.710	0	0,00	4	0	0,0	
Nederland	506.300	17	0,34	25	2	800,0	89%
Österreich	222.648	0	0,00	2	0	0,0	
Portugal	109.297	105	9,61	102	28	2.745,1	79%
Suomi/Finland	131.425	0	0,00	5	0	0,0	
Sverige	34.564	0	0,00	16	0	0,0	
United Kingdom	460.296	428	9,30	456	186	4.078,9	70%
Total EU15	10.038.717	1.058	1,05	2.578	306	1.187,0	78%
Česká Republika	210.183	4	0,19	1	0	0,0	100%
Eesti	3.983	0	0,00	0	0		
Kypros	7.726	0	0,00	0	0		
Latvija	6.115	0	0,00	11	0	0,0	
Lietuva	9.746	0	0,00	0	0		
Magyarország	97.390	0	0,00	98	0	0,0	
Malta**	1.199	0	0,00	0	0		
Polska	455.362	4	0,09	51	1	196,1	80%
Slovenija	66.135	1	0,15	32	0	0,0	100%
Slovenská Rep.	87.008	2	0,23	2	0	0,0	100%
nMS	944.847	11	0,12	195	1	51,3	92%
Norway	24.022	0	0,00	2	0	0,0	
Total EU25	10.983.564	1.069	0,97	2.773	307	1.107,1	78%

* : Positives per 10.000 bovine animals tested

** March until September

Chart 3: Number of positive cases per month in different target groups in the EU15 in 2003

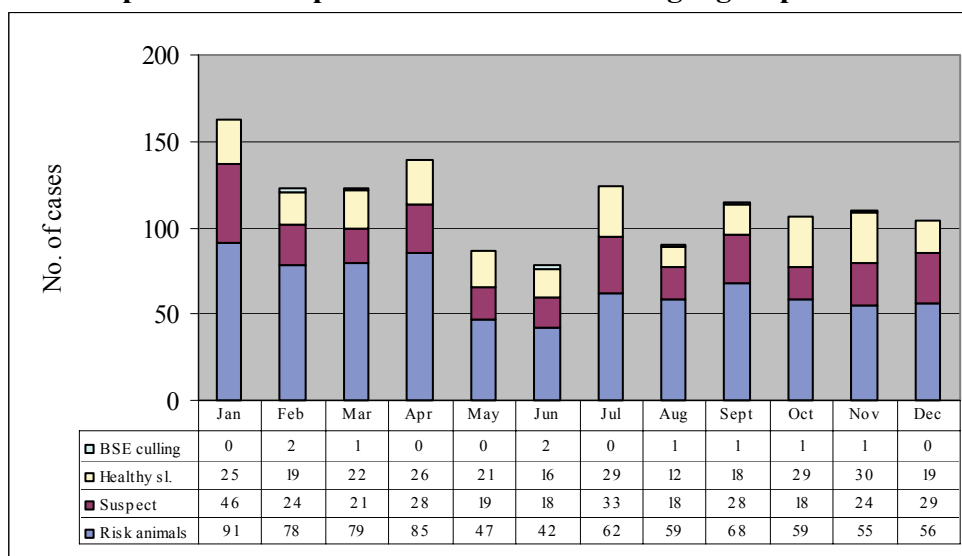
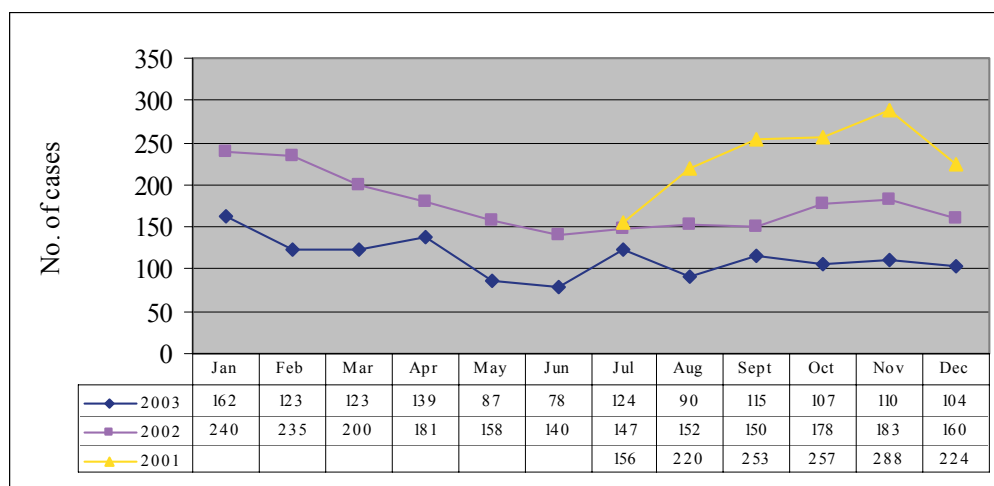


Table 9: Comparison of the number of positive cases and the prevalence in 2003 and 2002

	Number of positives			Prevalence*		
	2003	2002	Δ	2003	2002	Δ
Belgique/België	15	38	-61%	0,38	0,84	-55%
Danmark	2	3	-33%	0,07	0,10	-32%
Deutschland	54	106	-49%	0,21	0,35	-40%
Ellas	0	0		0,00	0,00	
España	173	134	29%	3,05	2,45	24%
France	138	240	-43%	0,43	0,75	-43%
Ireland	185	331	-44%	2,64	4,68	-44%
Italia	31	36	-14%	0,39	0,49	-20%
Luxembourg	0	1	-100%	0,00	0,54	-100%
Nederland	19	24	-21%	0,38	0,43	-13%
Österreich	0	0		0,00	0,00	
Portugal	133	86	55%	12,16	10,46	16%
Suomi/Finland	0	0		0,00	0,00	
Sverige	0	0		0,00	0,00	
United Kingdom	614	1.130	-46%	13,33	28,65	-53%
EU 15-UK	750	999	-25%	0,78	1,00	-21%
Total EU 15	1.364	2.129	-36%	1,36	2,04	-34%
Česká Republika	4	2	100%	0,19	0,11	67%
Polska	5	4	25%	0,11	0,14	-21%
Slovenija	1	1	0%	0,15	0,15	-2%
Slovenská Rep.	2	6	-67%	0,23	0,90	-74%
New MS	12	13	-8%	0,14	0,19	-26%
Norway	0	0		0,00	0,00	
Total EU 25	1.376	2.142	-36%	1,26	1,93	-35%

*: positive cases per 10.000 bovine animals tested

Chart 4: Evolution of positive cases per month since July 2001 in the EU15



Comments on positive cases

When analysing Charts 1 and 2, it should be kept in mind that active monitoring was limited before 2001. The expanded active monitoring became fully applicable in July 2001. The number of tests was about 20% higher in 2002 and 2003 than in 2001. Therefore, the prevalence of BSE is reducing since 2002 despite a higher number of cases detected in 2002 compared to 2001.

The results of UK in Tables 7, 8 and 9 cannot be compared to other Member States because the monitoring programme was not the same. Furthermore in Table 7, the results of Member States using a lower age limit should not be compared with results of Member States using the standard age limit.

Overall the number of cases and the prevalence of BSE dropped respectively by 36% and 33% in the EU15 in 2003 compared to 2002. However, in Spain and Portugal an increase was observed as illustrated in Table 9. Also, a reduction of the number of positive cases was observed during 2003 although a seasonal effect similar to 2002 was observed (Charts 3 and 4).

In Spain, the increased number of positive cases and ratio may be explained by the relatively high number of cases detected in 2003 in young animals born between 1997 and 1998 (see charts 32 and 33). This age group of animals was now closer to the average age when the disease becomes clinical, which is 4-6 years, and consequently the number of reported cases increases. In Portugal, a similar observation was made and the number of tested risk animals increased significantly resulting in more positive cases and a higher prevalence in active monitoring.

4.3 TESTING BY TARGET GROUP

Table 10: Testing on emergency slaughtered bovine animals

	Emergency Slaughter				
	No.	Positives	Ratio*		
			2003	2002	Δ
Belgique/België	1.214	0	0,00	0,00	
Danmark	1.739	0	0,00	0,00	
Deutschland	5.679	0	0,00	8,76	-100%
Ellas	127	0	0,00	0,00	
España	1.457	2	13,73	12,04	14%
France	0	0	0,00	0,00	
Ireland	2.483	4	16,11	0,00	
Italia	5.217	2	3,83	7,84	-51%
Luxembourg	27	0	0,00	0,00	
Nederland	1.375	0	0,00	1,95	-100%
Österreich	3.755	0	0,00	0,00	
Portugal	1.562	4	25,61	9,02	184%
Suomi/Finland	8.087	0	0,00	0,00	
Sverige	2.229	0	0,00	0,00	
United Kingdom	145.651	317	21,76	35,58	-39%
Total EU 15	180.602	329	18,22	27,95	-35%
Česká Republika	43.640	1	0,23		
Slovenská Rep.	8.269	1	1,21		

*: positive cases per 10.000 bovine animals tested

Table 11: Testing on bovine animals with clinical signs at ante-mortem

	Clinical signs ad ante-mortem inspection				
	No.	Positives	Ratio*		
			2003	2002	Δ
Belgique/België	83	0	0,00	0,00	
Danmark	17	0	0,00	0,00	
Deutschland	3.254	0	0,00	0,00	
Ellas	74	0	0,00	0,00	
España	1.810	3	16,57	71,32	-77%
France	0	0	0,00	0,00	
Ireland	0	0		18,44	-100%
Italia	54.674	8	1,46	0,94	55%
Luxembourg	0	0		3333,33	
Nederland	14.043	1	0,71	2,69	-73%
Österreich	0	0			
Portugal	5.521	14	25,36	4,09	520%
Suomi/Finland	4.216	0	0,00	0,00	
Sverige	0	0		0,00	
United Kingdom	18	3	1666,67	38,02	4283%
Total EU 15	83.710	29	3,46	3,78	-8%

*: positive cases per 10.000 bovine animals tested

Table 12: Testing on fallen stock

	No.	Fallen Stock			
		Positives	Ratio*		Δ
			2003	2002	
Belgique/België	33.691	5	1,48	4,40	-66%
Danmark	35.576	0	0,00	0,58	-100%
Deutschland	240.556	20	0,83	1,75	-53%
Ellas	1.798	0	0,00	0,00	
España	90.916	63	6,93	7,55	-8%
France	283.695	87	3,07	4,56	-33%
Ireland	84.954	108	12,71	23,88	-47%
Italia	64.159	5	0,78	1,25	-38%
Luxembourg	3.083	0	0,00	0,00	
Nederland	50.525	5	0,99	1,93	-49%
Österreich	13.235	0	0,00	0,00	
Portugal	19.310	43	22,27	57,49	-61%
Suomi/Finland	10.899	0	0,00	0,00	
Sverige	22.479	0	0,00	0,00	
United Kingdom	76.582	89	11,62	17,07	-32%
Total EU 15	1.031.458	425	4,12	6,14	-33%
Slovenija	8.092	1	1,24		

*: positive cases per 10.000 bovine animals tested

Table 13: Testing on all risk bovine animals (Fallen stock, bovine animals with clinical signs at AM and emergency slaughter)

	No.	Total Risk animals			
		Positives	Ratio*		Δ
			2003	2002	
Belgique/België	34.988	5	1,43	4,22	-66%
Danmark	37.332	0	0,00	0,56	-100%
Deutschland	249.489	20	0,80	1,93	-58%
Ellas	1.999	0	0,00	0,00	
España	94.183	68	7,22	8,57	-16%
France	283.695	87	3,07	4,56	-33%
Ireland	87.437	112	12,81	23,73	-46%
Italia	124.050	15	1,21	1,45	-17%
Luxembourg	3.110	0	0,00	5,15	-100%
Nederland	65.943	6	0,91	2,02	-55%
Österreich	16.990	0	0,00	0,00	
Portugal	26.393	61	23,11	16,91	37%
Suomi/Finland	23.202	0	0,00	0,00	
Sverige	24.708	0	0,00	0,00	
United Kingdom	222.251	409	18,40	28,77	-36%
Total EU 15	1.295.770	783	6,04	9,21	-34%
Česká Republika	76.431	1	0,13		
Slovenija	11.357	1	0,88		
Slovenská Rep.	21.805	1	0,46		

*: positive cases per 10.000 bovine animals tested

Table 14: Testing on healthy slaughtered bovine animals

	No.	Healthy Slaughter				Δ
		Positives	Ratio*			
			2003	2002		
Belgique/België	356.184	10	0,28	0,42	-32%	
Danmark	250.558	1	0,04	0,04	2%	
Deutschland	2.337.605	23	0,10	0,15	-35%	
Ellas	24.533	0	0,00	0,00		
España	471.252	74	1,57	0,79	98%	
France	2.920.157	37	0,13	0,26	-50%	
Ireland	600.586	31	0,52	0,54	-5%	
Italia	658.770	15	0,23	0,34	-32%	
Luxembourg	14.598	0	0,00	0,00		
Nederland	439.403	11	0,25	0,20	23%	
Österreich	205.658	0	0,00	0,00		
Portugal	81.633	44	5,39	5,70	-5%	
Suomi/Finland	108.198	0	0,00	0,00		
Sverige	9.856	0	0,00	0,00		
United Kingdom	237.490	19	0,80	0,82	-2%	
Total EU 15	8.716.481	265	0,30	0,31	-3%	
Česká Republika	133.046	3	0,23			
Polska	428.452	4	0,09			
Slovenská Rep.	65.192	1	0,15			

*: positive cases per 10.000 bovine animals tested

Table 15: Testing on bovine animals culled in the frame of BSE eradication

	No.	Culled animals				Δ
		Positives	Ratio*			
			2003	2002		
Belgique/België	1.126	0	0,00	0,00		
Danmark	1.774	0	0,00	0,00		
Deutschland	1.125	1	8,89	11,42	-22%	
Ellas	0	0		0,00		
España	2.356	6	25,47	12,79	99%	
France	1.669	2	11,98	0,63	1803%	
Ireland	11.986	1	0,83	2,14	-61%	
Italia	2.148	0	0,00	0,00		
Luxembourg	2	0	0,00			
Nederland	954	0	0,00	0,00		
Österreich	0	0				
Portugal	1.271	0	0,00	8,60	-100%	
Suomi/Finland	0	0				
Sverige	0	0				
United Kingdom	555	0	0,00	0,00		
Total EU 15	24.966	10	4,00	2,77	44%	

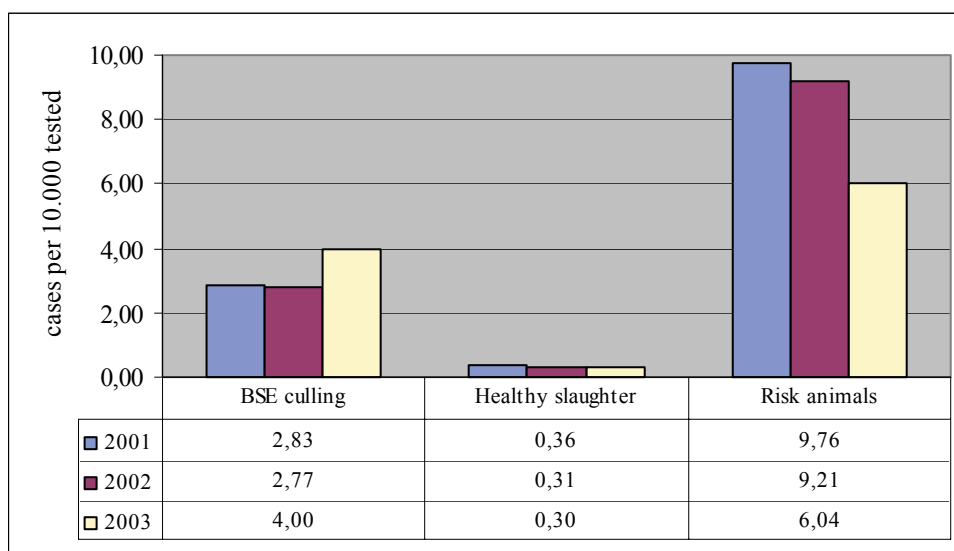
*: positive cases per 10.000 bovine animals tested

Table 16: Total of testing by active monitoring

	Total Active Monitoring				
	No.	Positives	Ratio*		
			2003	2002	Δ
Belgique/België	392.298	15	0,38	0,73	-48%
Danmark	289.664	1	0,03	0,10	-66%
Deutschland	2.588.219	44	0,17	0,31	-46%
Ellas	26.532	0	0,00	0,00	
España	567.791	148	2,61	2,14	22%
France	3.205.521	126	0,39	0,63	-37%
Ireland	700.009	144	2,06	3,15	-35%
Italia	786.443	30	0,38	0,49	-22%
Luxembourg	17.710	0	0,00	0,54	-100%
Nederland	506.300	17	0,34	0,41	-18%
Österreich	222.648	0	0,00	0,00	
Portugal	109.297	105	9,61	7,68	25%
Suomi/Finland	131.425	0	0,00	0,00	
Sverige	34.564	0	0,00	0,00	
United Kingdom	460.296	428	9,30	16,51	-44%
Total EU 15	10.038.717	1.058	1,05	1,38	-24%
Česká Republika	210.183	4	0,19		
Polska	455.362	4	0,09		
Slovenija	66.135	1	0,15		
Slovenská Rep.	87.008	2	0,23		

*: positive cases per 10.000 bovine animals tested

Chart 5: Evolution of the prevalence in target groups detected by active monitoring



Comments on the testing by target group

Figures between different Member States should be compared with caution as:

- The policy on emergency slaughter varies between Member States. In certain countries cattle are hardly, or not, received for emergency slaughter.
- The policy on animals with clinical signs at ante-mortem inspection also varies between Member States.
- Different monitoring programmes were run in healthy slaughtered cattle. Testing younger cattle on a voluntary basis results in a lower ratio. In addition, the testing in the UK focussed on animals born after the date of the effective feed ban.
- The results of different target groups are interdependent and should not be viewed in isolation. For example, an effective passive surveillance will increase the number of cases found in suspects and may at the same time decrease the ratio of positive cases in the other target groups, in particular in fallen stock and emergency slaughtered animals.

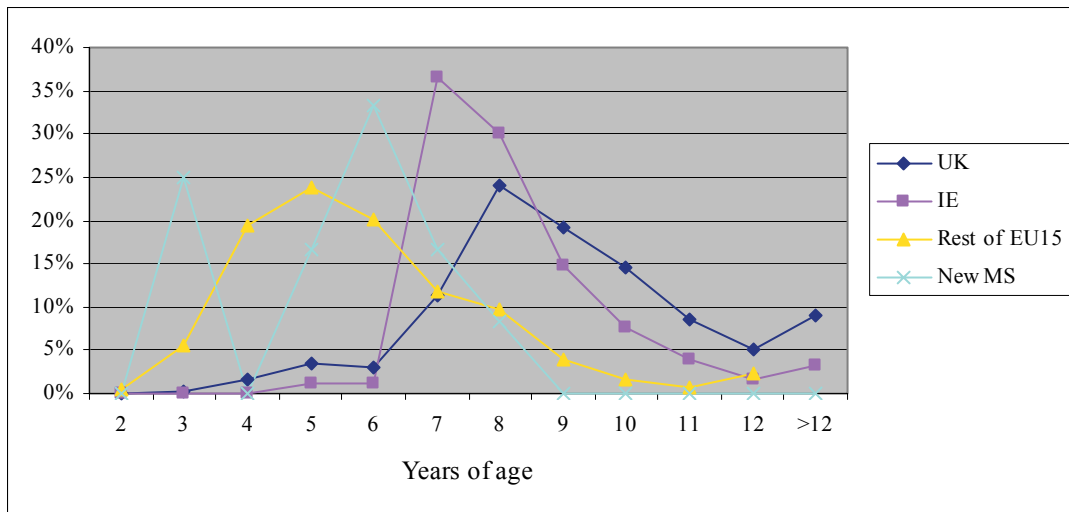
The above tables and charts demonstrate that the prevalence of BSE dropped in risk animals in 2003 compared to 2002 except in Portugal. The increase in risk animals in Portugal is overestimated because cattle culled in the frame of eradication of diseases other than BSE, having a low BSE prevalence, were recorded as risk animals in 2002, while as healthy slaughtered cattle in 2003. The prevalence in healthy slaughtered cattle however was similar in 2003 and 2002.

The figures illustrate that the likelihood of finding BSE cases is around 20 times higher in fallen stock, emergency slaughtered cattle and cattle with general clinical signs at ante-mortem (“risk animals”) than in healthy slaughtered cattle. In culled animals, the prevalence was more than 10 times higher than in healthy slaughtered cattle.

4.4 AGE DISTRIBUTION OF POSITIVE CASES
Table 17: Age distribution of all positive cases

		Age (years old)										
		3 (36-47m)	4 (48-59m)	5 (60-71m)	6 (72-83m)	7 (84-95m)	8 (96-107m)	9 (108-119m)	10 (120-131m)	11 (132-143m)	12 (144-155m)	>12 (>155 m)
Belgique/België	No of cases %	0 0%	1 7%	3 20%	4 27%	3 20%	2 13%	1 7%	0 0%	0 0%	1 7%	0 0%
Danmark	No of cases %	0 0%	0 0%	1 50%	0 0%	1 50%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Deutschland	No of cases %	2 4%	13 24%	9 17%	16 30%	12 22%	1 2%	0 0%	0 0%	0 0%	0 0%	1 2%
España	No of cases %	1 1%	10 6%	50 30%	41 25%	32 19%	15 9%	8 5%	5 3%	1 1%	0 0%	4 2%
France	No of cases %	0 0%	1 1%	10 9%	16 14%	29 26%	29 26%	18 16%	1 1%	3 3%	1 1%	3 3%
Ireland	No of cases %	0 0%	0 0%	2 1%	2 1%	67 37%	55 30%	27 15%	14 8%	7 4%	3 2%	6 3%
Italia	No of cases %	0 0%	0 0%	3 10%	10 32%	8 26%	3 10%	3 10%	1 3%	1 3%	0 0%	2 6%
Nederland	No of cases %	0 0%	2 11%	2 11%	10 56%	3 17%	0 0%	0 0%	0 0%	0 0%	1 6%	0 0%
Portugal	No of cases %	0 0%	3 2%	25 19%	30 23%	19 14%	13 10%	22 17%	14 11%	3 2%	1 1%	2 2%
United Kingdom	No of cases %	1 0%	11 2%	20 3%	14 2%	71 12%	149 24%	116 19%	90 15%	53 9%	30 5%	58 9%
Total EU15	No of cases %	4 0%	41 3%	125 9%	143 11%	245 18%	267 20%	195 15%	125 9%	68 5%	37 3%	76 6%
Česka Republika	No of cases %	2 50%	0 0%	0 0%	1 25%	0 0%	1 25%	0 0%	0 0%	0 0%	0 0%	0 0%
Polska	No of cases %	0 0%	0 0%	2 40%	2 40%	1 20%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Slovenija	No of cases %	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Slovenská Rep.	No of cases %	0 0%	0 0%	0 0%	1 50%	1 50%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
New MS	No of cases %	3 25%	0 0%	2 17%	4 33%	2 17%	1 8%	0 0%	0 0%	0 0%	0 0%	0 0%

Charts 6: Age distribution of positive cases in the UK, Ireland, the rest of the EU15 and the new Member States in 2003



Charts 7, 8 and 9: Comparison of the age distribution of positive cases detected in 2003, 2002 and 2001: United Kingdom, Ireland and the rest of the EU15

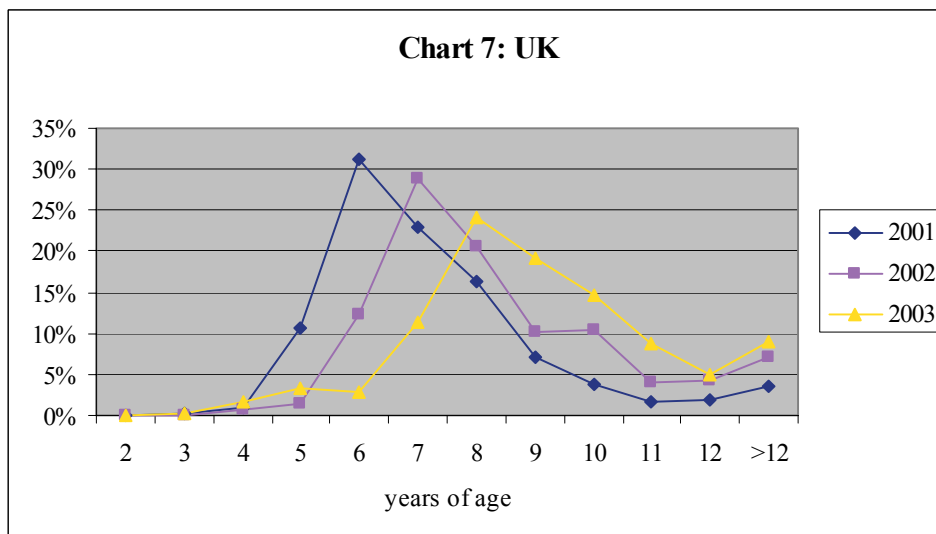


Chart 8: Ireland

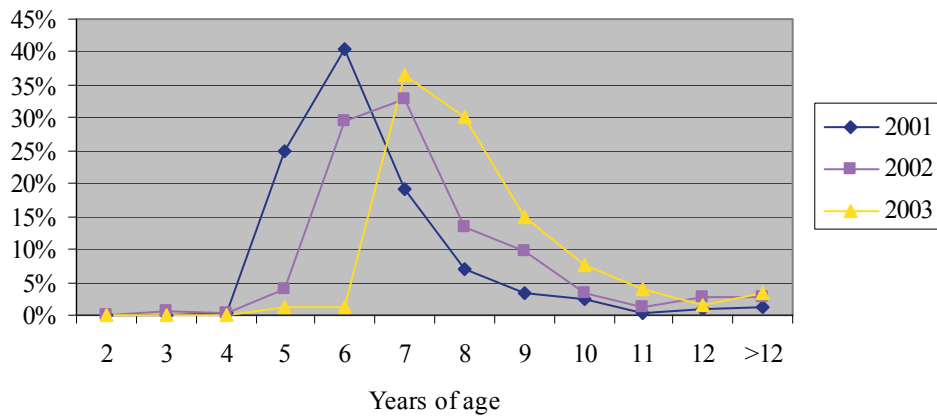


Chart 9: rest of the EU15

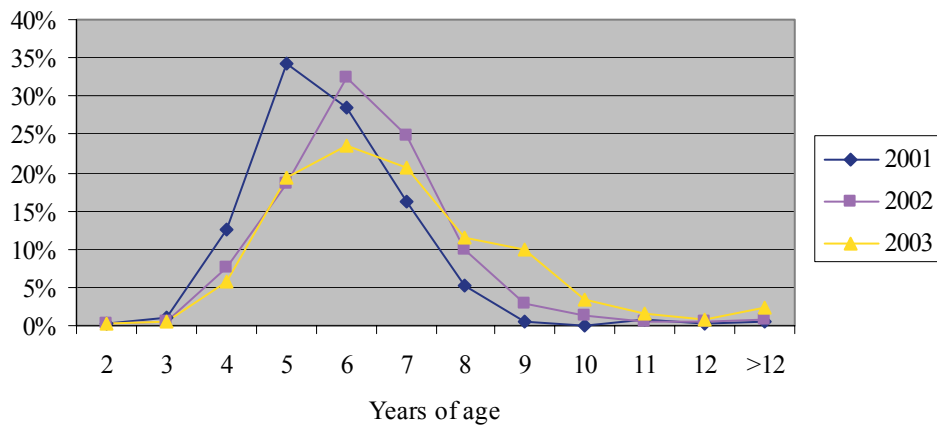


Chart 10: Age distribution in risk animals in 2003

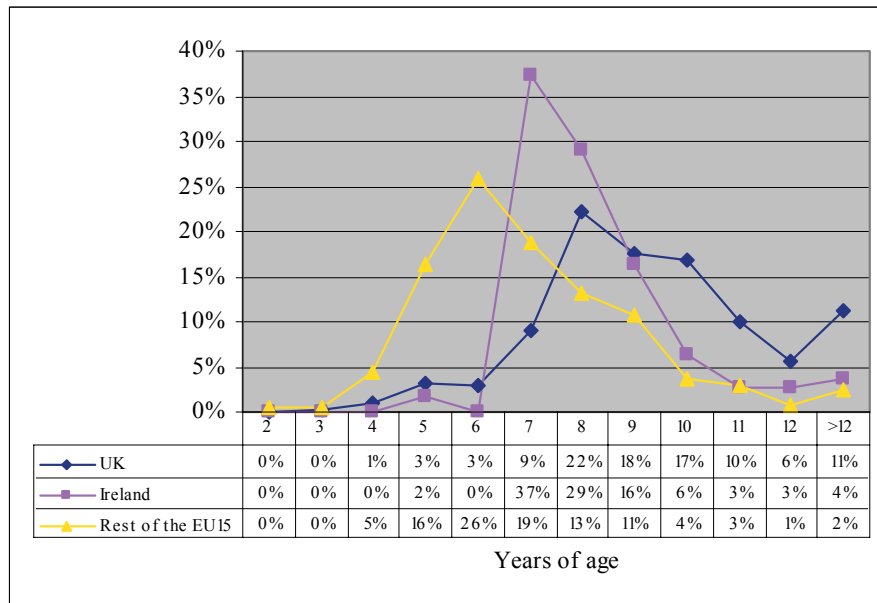


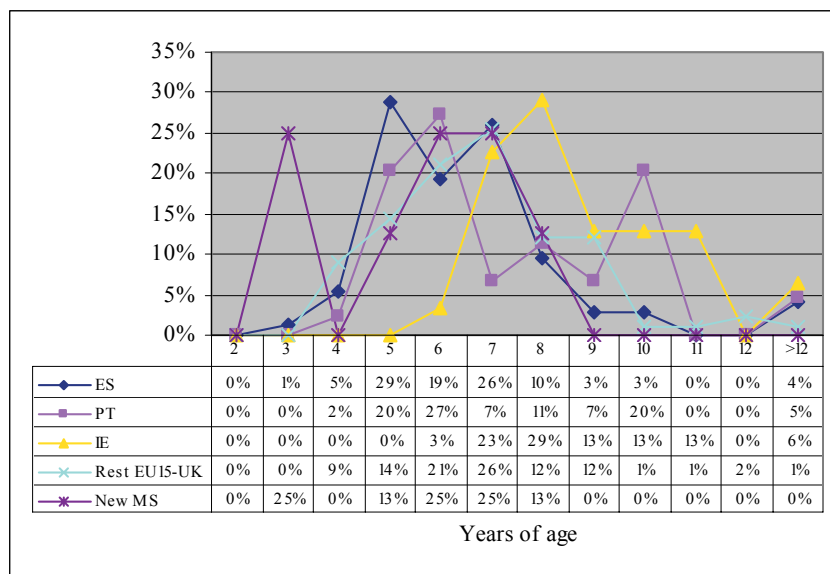
Table 18: Age distribution of positive cases in risk animals (Fallen stock, emergency slaughter and clinical signs at AM) in 2003

		Age (years old)										
		3 (36-47m)	4 (48-59m)	5 (60-71m)	6 (72-83m)	7 (84-95m)	8 (96-107m)	9 (108-119m)	10 (120-131m)	11 (132-143m)	12 (144-155m)	>12 (>155 m)
Belgique/België	No of cases %	0 0%	0 0%	2 40%	1 20%	1 20%	0 0%	1 20%	0 0%	0 0%	0 0%	0 0%
Deutschland	No of cases %	1 5%	4 20%	3 15%	7 35%	4 20%	0 0%	0 0%	0 0%	0 0%	0 0%	1 5%
España	No of cases %	0 0%	3 4%	16 24%	23 34%	10 15%	6 9%	5 7%	3 4%	1 1%	0 0%	1 1%
France	No of cases %	0 0%	0 0%	5 7%	11 16%	18 26%	21 30%	9 13%	0 0%	3 4%	1 1%	2 3%
Ireland	No of cases %	0 0%	0 0%	2 2%	0 0%	41 37%	32 29%	18 16%	7 6%	3 3%	3 3%	4 4%
Italia	No of cases %	0 0%	0 0%	1 7%	6 40%	4 27%	0 0%	1 7%	1 7%	0 0%	0 0%	2 13%
Nederland	No of cases %	0 0%	2 40%	0 0%	3 60%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Portugal	No of cases %	0 0%	2 3%	13 21%	12 20%	9 15%	5 8%	10 16%	5 8%	3 5%	1 2%	0 0%
United Kingdom	No of cases %	1 0%	4 1%	13 3%	9 2%	38 9%	88 22%	72 18%	67 17%	40 10%	23 6%	46 11%
Total EU15	No of cases %	2 0%	15 2%	55 7%	72 10%	125 16%	152 20%	116 15%	83 11%	50 7%	28 4%	56 7%
Česká Republika	No of cases %	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Slovenija	No of cases %	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Slovenská Rep.	No of cases %	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%

Table 19: Age distribution of positive cases in healthy slaughtered cattle

		Age (years old)										
		3 (36-47m)	4 (48-59m)	5 (60-71m)	6 (72-83m)	7 (84-95m)	8 (96-107m)	9 (108-119m)	10 (120-131m)	11 (132-143m)	12 (144-155m)	>12 (>155 m)
Belgique/België	No of cases %	0 0%	1 10%	1 10%	3 30%	2 20%	2 20%	0 0%	0 0%	0 0%	1 10%	0 0%
Danmark	No of cases %	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Deutschland	No of cases %	0 0%	6 26%	5 22%	6 26%	6 26%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
España	No of cases %	1 1%	4 5%	21 29%	14 19%	19 26%	7 10%	2 3%	2 3%	0 0%	0 0%	3 4%
France	No of cases %	0 0%	1 3%	3 10%	1 3%	7 23%	7 23%	9 30%	1 3%	0 0%	0 0%	1 3%
Ireland	No of cases %	0 0%	0 0%	0 0%	1 3%	7 23%	9 29%	4 13%	4 13%	4 13%	0 0%	2 6%
Italia	No of cases %	0 0%	0 0%	2 13%	4 27%	4 27%	2 13%	2 13%	0 0%	1 7%	0 0%	0 0%
Nederland	No of cases %	0 0%	0 0%	2 18%	5 45%	3 27%	0 0%	0 0%	0 0%	0 0%	1 9%	0 0%
Portugal	No of cases %	0 0%	1 2%	9 20%	12 27%	3 7%	5 11%	3 7%	9 20%	0 0%	0 0%	2 5%
United Kingdom	No of cases %	0 0%	3 12%	4 16%	0 0%	1 4%	3 12%	3 12%	5 20%	2 8%	0 0%	4 16%
Total EU15	No of cases %	1 0%	16 6%	47 18%	46 18%	53 20%	35 13%	23 9%	21 8%	7 3%	2 1%	12 4%
Česká Republika	No of cases %	2 67%	0 0%	0 0%	0 0%	0 0%	1 33%	0 0%	0 0%	0 0%	0 0%	0 0%
Polska	No of cases %	0 0%	0 0%	1 25%	2 50%	1 25%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Slovenská Rep.	No of cases %	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%

Chart 11: Age distribution in healthy slaughtered cattle in 2003



The highest number of cases and the highest incidence in healthy slaughtered cattle were detected in Portugal and Spain. Therefore these Member States were plotted separately in Chart 11. The age distribution in the UK is without interest given the biased testing programme.

Chart 12: Age distribution in suspects in 2003

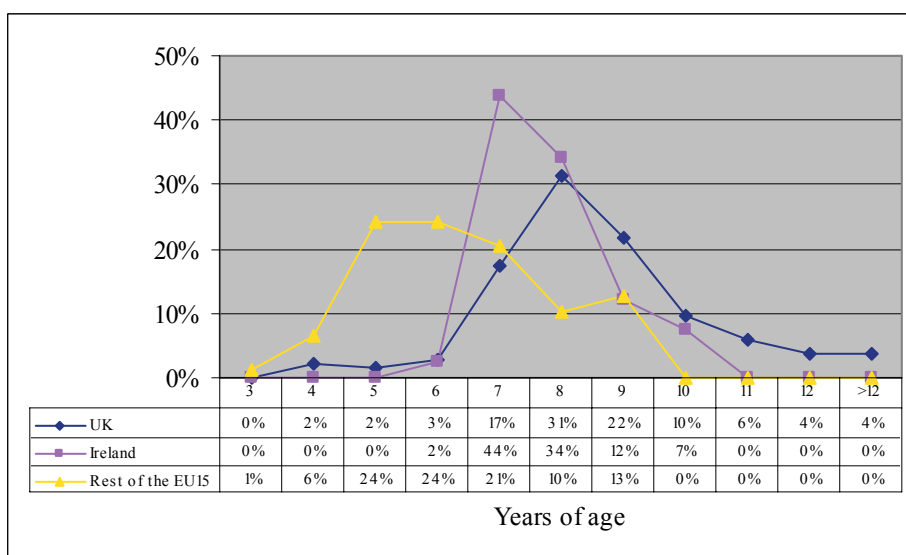


Table 20: Age distribution of positive cases in BSE suspects:

		Age (years old)											
		3 (36-47m)	4 (48-59m)	5 (60-71m)	6 (72-83m)	7 (84-95m)	8 (96-107m)	9 (108-119m)	10 (120-131m)	11 (132-143m)	12 (144-155m)	>12 (>155 m)	
Danmark	No of cases %	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Deutschland	No of cases %	1 10%	2 20%	1 10%	3 30%	2 20%	1 10%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
España	No of cases %	0 0%	3 12%	12 48%	4 16%	3 12%	2 8%	1 4%	0 0%	0 0%	0 0%	0 0%	0 0%
France	No of cases %	0 0%	0 0%	2 18%	4 36%	4 36%	1 9%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Ireland	No of cases %	0 0%	0 0%	0 0%	1 2%	18 44%	14 34%	5 12%	3 7%	0 0%	0 0%	0 0%	0 0%
Italia	No of cases %	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Nederland	No of cases %	0 0%	0 0%	0 0%	2 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Portugal	No of cases %	0 0%	0 0%	3 11%	6 21%	7 25%	3 11%	9 32%	0 0%	0 0%	0 0%	0 0%	0 0%
United Kingdom	No of cases %	0 0%	4 2%	3 2%	5 3%	32 17%	58 31%	40 22%	18 10%	11 6%	7 4%	7 4%	
Total EU15	No of cases %	1 0%	9 3%	22 7%	25 8%	66 22%	80 26%	55 19%	21 7%	11 4%	7 2%	7 2%	
Polska	No of cases %	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	

Table 21: Average age in months per target group

	BSE Culling			Healthy slaughter			Risk animals			BSE suspects		
	2001	2002	2003	2001	2002	2003	2001	2002	2003	2001	2002	2003
Belgique/België	74,0	0,0	0,0	72,1	74,8	88,1	73,6	84,0	81,6	73,9	81,0	0,0
Danmark	0,0	0,0	0,0	57,7	71,0	86,0	78,0	64,0	0,0	48,0	0,0	66,0
Deutschland	61,5	56,3	52,0	68,4	78,3	72,7	63,8	78,5	77,0	64,7	70,5	71,7
Ellas	0,0	0,0	0,0	56,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
España	0,0	0,0	69,0	83,0	81,3	84,2	72,5	76,4	84,2	64,3	86,6	74,0
France	86,0	79,0	0,0	75,6	86,6	99,7	79,3	85,5	97,6	74,6	83,9	81,7
Ireland	0,0	71,6	95,0	90,7	99,1	112,3	83,5	95,6	104,5	82,4	91,5	100,0
Italia	0,0	0,0	0,0	66,5	80,3	91,5	71,9	75,9	97,3	0,0	0,0	96,0
Luxembourg	0,0	0,0	0,0	0,0	0,0	0,0	0,0	73,0	0,0	0,0	0,0	0,0
Nederland	0,0	0,0	0,0	76,2	79,3	85,4	70,8	72,9	69,8	78,0	75,0	79,0
Österreich	0,0	0,0	0,0	70,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Portugal	0,0	99,0	0,0	81,2	86,9	94,5	82,3	85,2	92,1	81,9	88,2	93,2
Suomi/Finland	0,0	0,0	0,0	0,0	0,0	0,0	81,0	0,0	0,0	0,0	0,0	0,0
United Kingdom	0,0	0,0	0,0	57,0	102,0	109,4	101,0	110,9	119,2	89,4	101,0	108,4
Total EU15	72,3	70,5	72,0	76,2	85,9	93,1	88,7	100,0	107,6	86,5	96,9	100,5
Česká Republika	0,0	0,0	0,0	72,0	73,5	62,7	68,0	0,0	76,0	0,0	0,0	0,0
Polska	0,0	0,0	0,0	0,0	76,3	74,0	0,0	0,0	0,0	0,0	99,0	67,0
Slovenija	0,0	0,0	0,0	0,0	0,0	0,0	72,0	0,0	44,0	0,0	0,0	0,0
Slovenská Rep.	0,0	0,0	0,0	72,8	95,3	93,0	78,0	71,3	72,0	0,0	0,0	0,0

Chart 13: Average age of positive cases detected in 2001, 2002 and 2003

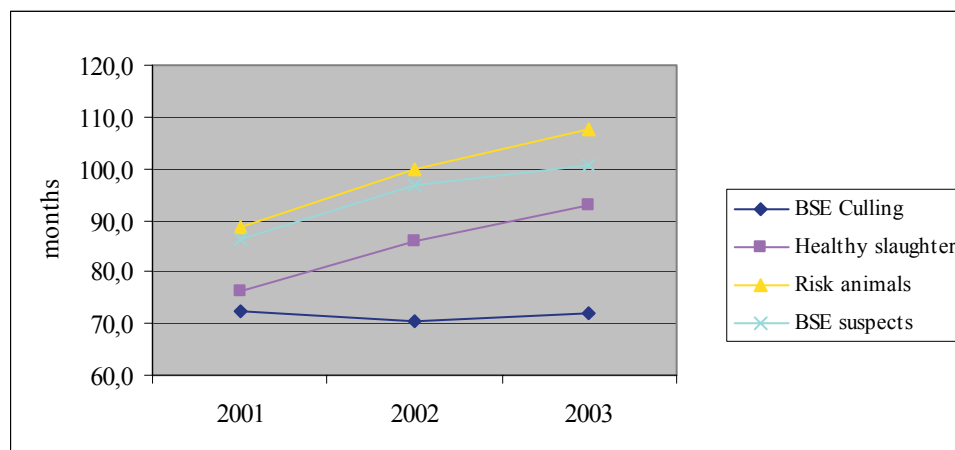


Chart 14: Average age of positive cases per target group in the UK: comparison of 2003, 2002 and 2001 (see comment at chart 11)

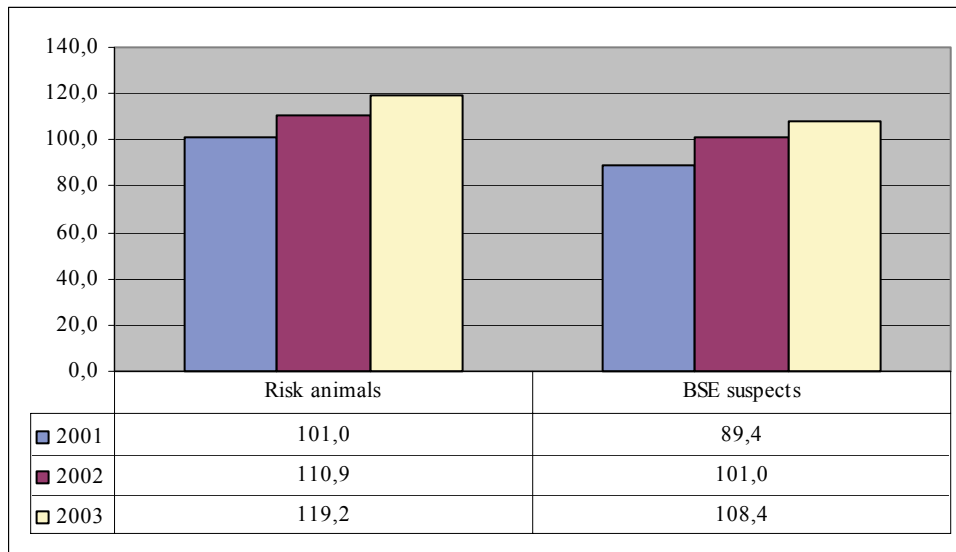


Chart 15: Average age of positive cases per target group in Ireland: comparison of 2003, 2002 and 2001

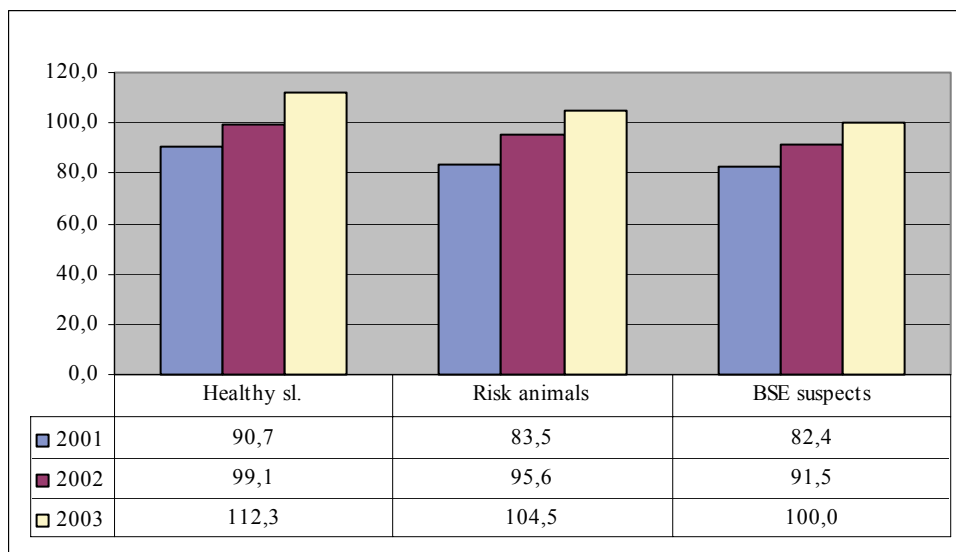
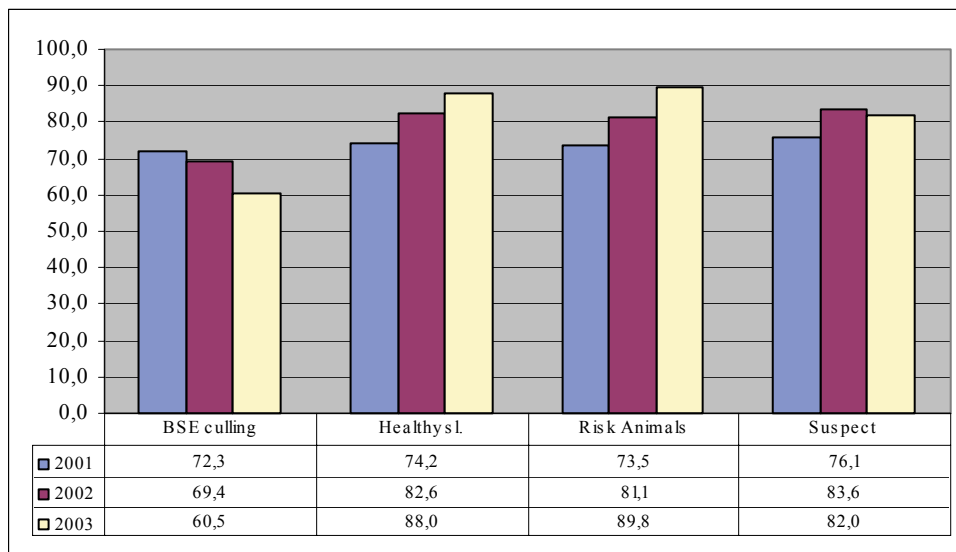


Chart 16: Average age of positive cases per target group in the rest of the EU15: comparison of 2003, 2002 and 2001



Comments on the age distribution of positive cases

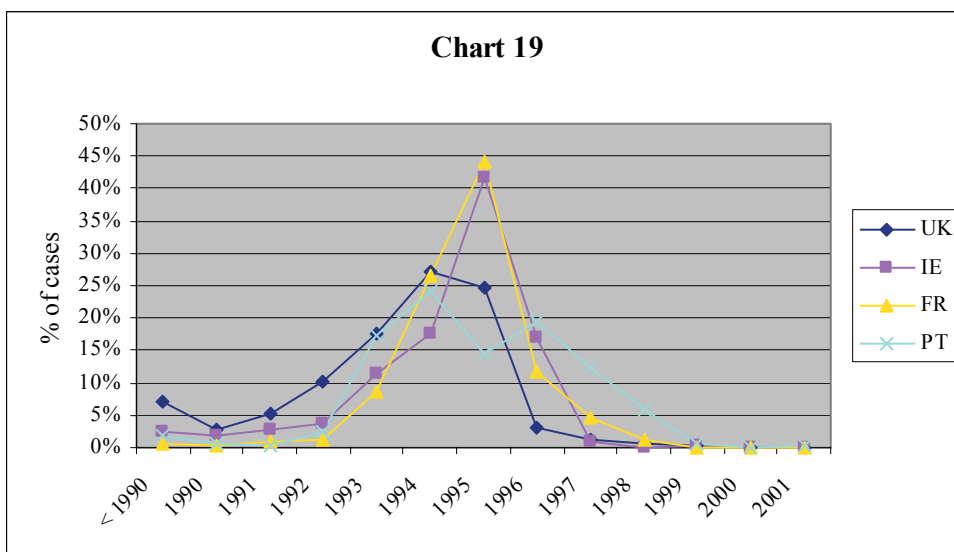
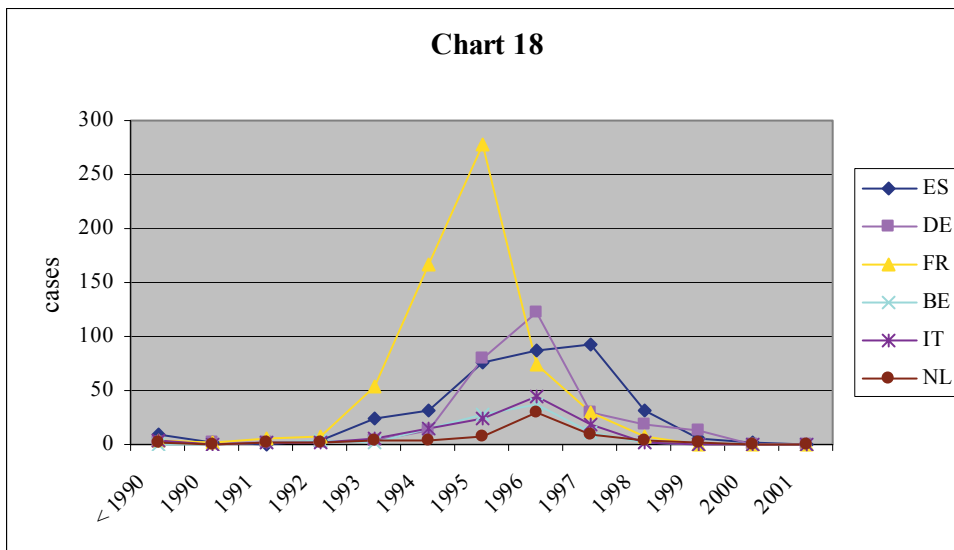
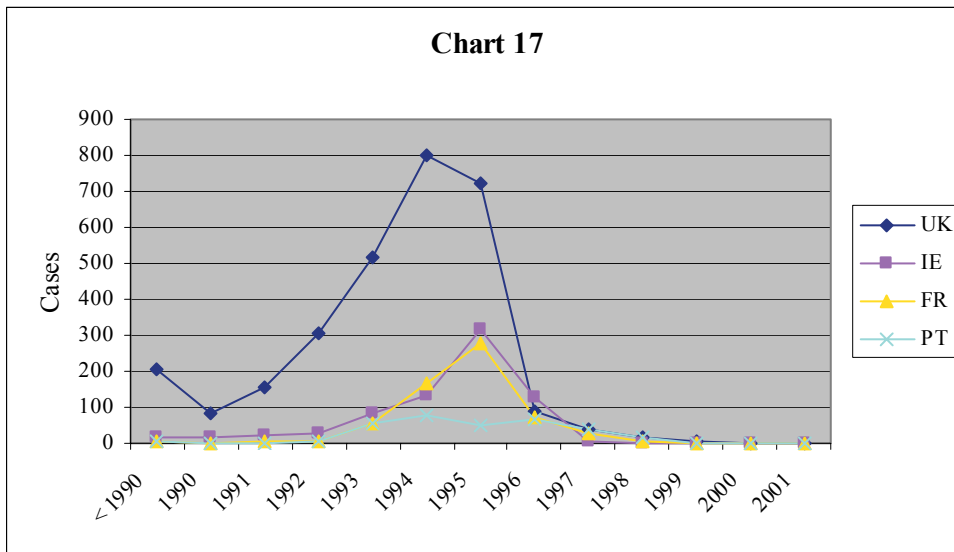
Tables 17 to 20, and Charts 6 to 12 illustrate that there are differences between Member States in the age profile of positive cases in 2003 as was already observed in 2002. A favourable evolution is observed in the average age of positive cases of the major target groups (BSE suspects, healthy slaughtered cattle and risk animals) from 2001 to 2003 in the EU15 (Table 21 and Charts 13 to 16). Taking into consideration an average incubation period of 5 years, these figures are an indication that measures taken from 1997 onwards may have had some effect and that the prevalence of BSE in young animals is decreasing.

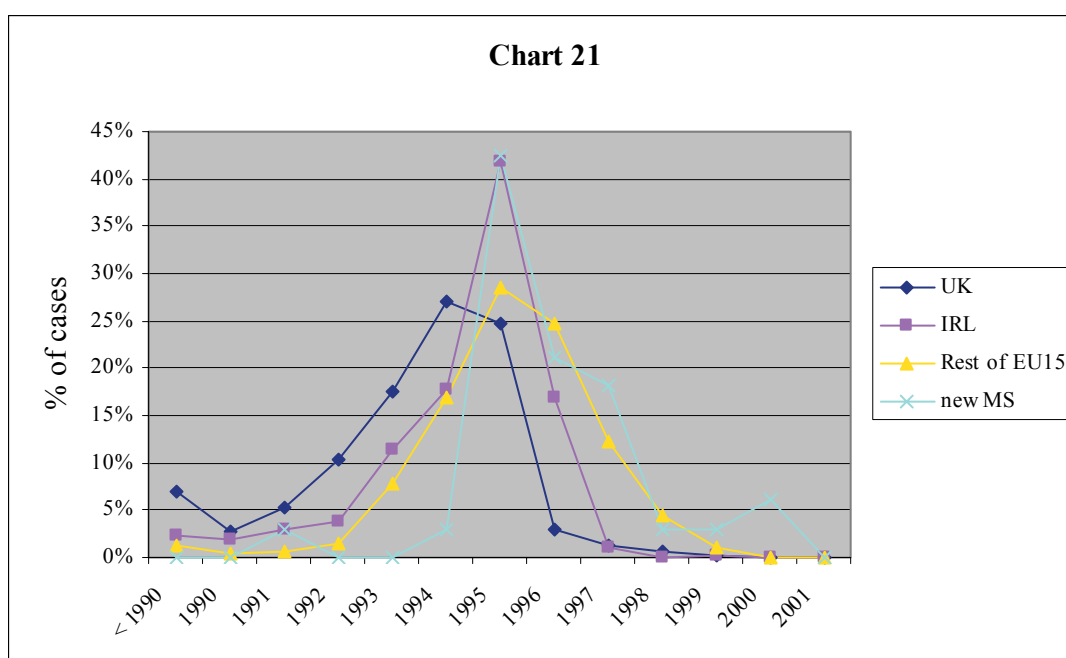
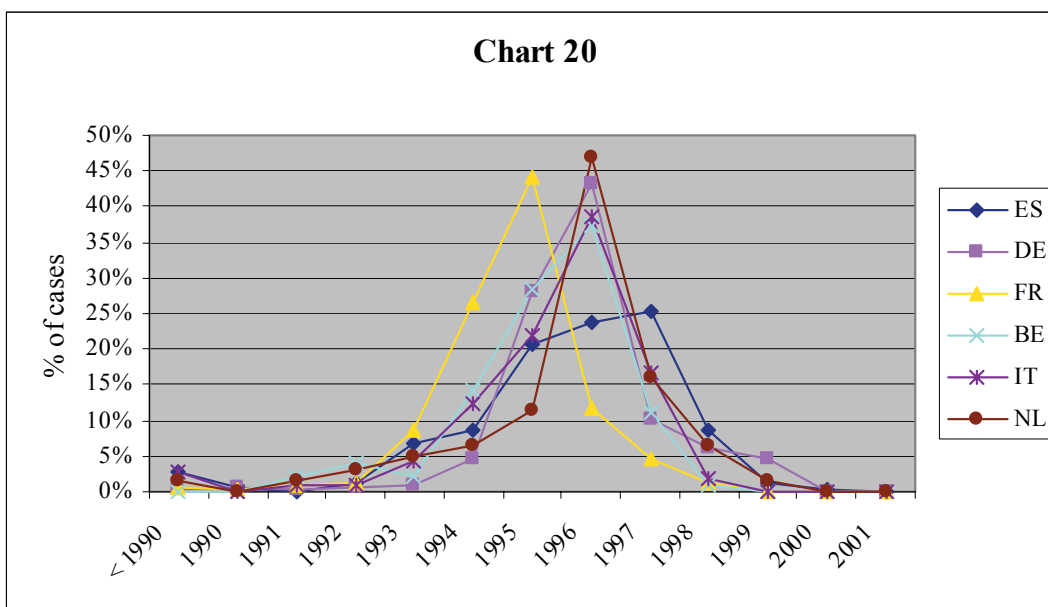
When assessing the figures in healthy slaughtered animals in the UK, it should be borne in mind that the testing was targeted at animals born after 1 August 1996.

4.5 YEAR OF BIRTH DISTRIBUTION IN CASES DETECTED SINCE 2001
Table 22: Year of birth distribution of positive cases

	Before 1990	Year of Birth													
		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000			
Belgique/België	No. of cases 0 0%	2 2%	4 4%	2 2%	14 14%	28 28%	37 37%	11 11%	1 1%	0 0%	0 0%	0 0%			
Danmark	No. of cases 0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	6 50%	2 17%	2 17%	1 8%	0 0%	0 0%			
Deutschland	No. of cases 1 0%	1 0%	2 1%	3 1%	13 5%	80 28%	123 43%	29 10%	18 6%	13 5%	0 0%	0 0%			
Ellas	No. of cases 0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%			
España	No. of cases 10 3%	2 0%	4 0%	28 7%	31 8%	79 21%	87 23%	96 26%	33 9%	5 1%	1 0%	0 0%			
France	No. of cases 3 0%	2 0%	8 1%	54 9%	166 26%	278 44%	74 12%	30 5%	8 1%	0 0%	0 0%	0 0%			
Ireland	No. of cases 18 2%	14 2%	29 4%	86 11%	134 18%	317 42%	129 17%	8 1%	0 0%	2 0%	0 0%	0 0%			
Italia	No. of cases 3 3%	0 0%	1 1%	5 4%	14 12%	26 22%	44 39%	20 17%	3 3%	0 0%	0 0%	0 0%			
Luxembourg	No. of cases 0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%			
Nederland	No. of cases 1 2%	1 2%	2 3%	3 5%	4 6%	7 11%	29 47%	10 16%	4 6%	1 2%	0 0%	0 0%			
Österreich	No. of cases 0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%			
Portugal	No. of cases 6 2%	2 1%	8 2%	57 17%	79 24%	48 15%	64 19%	41 12%	19 6%	2 1%	0 0%	0 0%			
Suomi/Finland	No. of cases 0 0%	0 0%	0 0%	0 0%	0 0%	1 100%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%			
United Kingdom	No. of cases 208 7%	82 3%	158 5%	515 18%	798 27%	724 25%	87 3%	40 1%	19 1%	6 0%	0 0%	0 0%			
Total EU15	No. of cases 250 4%	104 2%	191 3%	361 6%	754 13%	1,253 22%	683 12%	287 5%	107 2%	30 1%	1 0%	2 6%			
Česká Rep.	No. Of cases 0 0%	0 0%	0 0%	0 0%	0 0%	4 50%	0 0%	2 25%	0 0%	0 0%	2 25%	0 0%			
Polska	No. of cases 0 0%	0 0%	0 0%	0 0%	1 11%	3 33%	3 33%	3 33%	1 11%	0 0%	0 0%	0 0%			
Slovenija	No. of cases 0 0%	0 0%	0 0%	0 0%	0 0%	1 33%	1 33%	0 0%	0 0%	1 33%	0 0%	0 0%			
Slovenská Rep.	No. of cases 0 0%	0 0%	1 8%	0 0%	0 0%	8 62%	3 23%	1 8%	0 0%	0 0%	0 0%	0 0%			
Total nMS	No. of cases 0 0%	0 0%	1 3%	0 0%	1 3%	14 42%	7 21%	6 18%	1 3%	1 3%	1 3%	2 6%			

Charts 17 to 21: Year of birth distribution of positive cases detected in 2001, 2002 or 2003
 (France is used as a reference in Charts 17 to 20)





Comments on the year of birth distribution of positive animals

Table 22 and Charts 17 to 21 only take account of cases detected since 2001 and does not include cases detected before 2001 in particular in the United Kingdom, Portugal, Ireland and France. However, differences between Member States with regard to the year of birth with the highest % of positive cases may be an indication of differences in the period of exposure to the agent and by the effectiveness of measures to prevent transmission of the agent, in particular the feed ban. In several Member States the peak of exposure seems to be very well defined, representing almost half of the positive cases detected (France and Ireland: 1995; Germany, Belgium, Italy and the Netherlands: 1996).

The UK figures are not fully representative as the testing programme in healthy slaughtered animals is different for animals born pre-August 1996.

4.6 PREVALENCE OF BSE IN DIFFERENT AGE CATEGORIES

Table 23: Extrapolated age distribution of all tested cattle

Reported as	AT	BE	DK	DE	EL	ES	FI	FR	IE	IT	LU	NL	PT	SV	UK	EUI5
<24	388	1,031	2,731	518,446	272	2,618	875	0	170	1,796	3	1,510	0	1,355	151	531,348
24-35		36,641	38,230	586,987	2,025	64,906	19,897	610,409	230,523	145,396	3,395	59,286	7,547	5,816	27,608	1,838,667
36-47		85,998	65,145	330,496	3,523	61,844	28,702	672,233	95,173	113,681	3,981	94,832	13,151	6,105	63,943	1,638,805
48-59		80,751	62,843	294,191	3,795	69,148	27,742	405,384	45,658	114,382	2,654	94,281	14,754	6,405	89,778	1,311,766
60-71		61,440	47,978	246,948	3,569	64,152	21,294	331,935	40,755	102,045	9,935	78,437	13,427	5,665	87,219	1,114,801
72-83		44,794	31,345	193,096	3,430	56,694	14,240	282,090	38,637	81,873	1,586	63,134	12,779	3,939	74,299	901,936
84-95		32,340	20,314	144,474	2,859	50,107	8,464	232,189	18,018	64,203	1,271	48,364	10,926	2,215	32,076	667,819
96-107		0	11,452	0	2,245	35,578	0	0	0	46,858	0	27,994	8,613	0	23,372	156,113
108-119		0	5,908	0	1,599	28,090	0	0	0	33,806	0	15,093	6,714	0	17,413	108,624
120-131		0	3,246	0	1,074	21,444	0	0	0	23,771	0	9,259	4,593	0	15,938	79,325
132-143		0	1,698	0	792	16,698	0	0	0	17,511	0	5,011	3,456	0	8,988	54,154
144-155		0	905	0	537	15,248	0	0	0	13,128	0	2,565	2,776	0	7,814	42,974
156 & >		0	1,130	0	813	44,728	0	0	0	27,605	0	2,467	11,236	0	13,121	101,102
96 & >		49,469	0	274,435	0	29,424	10,227	671,723	232,142		2,842	6,486	0	3,075	0	1,279,823
< 30	1,012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,012
> 30	204,649	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204,649
> 24	16,601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16,601
Total	222,650	392,465	292,925	2,589,073	26,533	560,681	131,441	3,205,963	701,076	786,057	25,667	508,720	109,972	34,575	461,720	10,049,518

Reported as	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK
<24	0	101	Na	Na	25	50	Na	Na	175	99
24-35	173	32,532	Na	Na	560	382	Na	Na	19,585	11,158
36-47	661	40,218	Na	Na	937	579	Na	Na	7,220	14,647
48-59	1,452	36,825	Na	Na	821	606	Na	Na	6,020	13,282
60-71	2,247	29,710	Na	Na	865	682	Na	Na	5,998	12,295
72-83	2,586	22,233	Na	Na	752	700	Na	Na	5,569	9,869
84-95	519	16,866	Na	Na	1,008	686	Na	Na	5,234	7,933
96-107	57	11,913	Na	Na	1,148	534	Na	Na	4,641	5,978
108-119	17	8,065	Na	Na	900	487	Na	Na	3,450	3,973
120-131	9	5,306	Na	Na	910	408	Na	Na	2,718	3,005
132-143	0	2,780	Na	Na	621	351	Na	Na	1,921	1,826
144-155	4	1,783	Na	Na	562	303	Na	Na	1,459	1,364
156 & >	0	2,124	Na	Na	636	358	Na	Na	2,178	1,597
96 & >	0	0	Na	Na	0	0	Na	Na	0	0
Total	7,726	210,456	3,983	97,488	9,746	6,126	1,199	455,362	66,167	87,025

Table 24: Extrapolated age distribution of tested risk animals

Reported as	AT	BE	DK	DE	EL	ES	FI	FR	IE	IT	LU	NL	PT	SV	UK	EUI5
<24	388	868	1,065	7,269	81	870	603	0	127	514	0	308	0	1,318	56	13,468
24-35	0	6,997	8,504	66,743	271	12,064	5,837	45,406	13,907	18,967	614	13,526	3,160	4,821	27,123	227,939
36-47	0	6,943	6,976	36,320	243	11,359	3,831	50,323	8,317	19,511	585	9,781	3,283	4,166	28,134	189,773
48-59	0	5,350	6,982	35,451	260	11,754	4,320	37,999	6,615	19,586	463	10,086	3,474	4,281	24,783	171,404
60-71	0	4,390	5,764	31,883	276	11,345	3,602	32,277	6,484	17,874	380	9,590	3,090	3,923	24,027	154,905
72-83	0	3,443	3,653	24,243	246	9,642	2,424	27,185	6,155	13,802	319	7,883	2,901	2,679	22,234	126,810
84-95	0	2,565	2,468	17,216	177	8,116	1,303	21,785	2,581	10,728	247	6,096	2,278	1,528	20,103	97,191
96-107	0	0	1,348	0	147	5,789	0	0	0	7,383	0	1,014	1,787	0	20,659	38,128
108-119	0	0	644	0	80	4,523	0	0	0	5,042	0	474	1,454	0	15,313	27,530
120-131	0	0	406	0	70	3,378	0	0	0	3,393	0	267	997	0	14,352	22,864
132-143	0	0	212	0	48	2,458	0	0	0	2,404	0	144	804	0	7,716	13,786
144-155	0	0	140	0	51	2,298	0	0	0	1,747	0	76	687	0	6,989	11,987
156 & >	0	0	181	0	50	5,324	0	0	0	3,613	0	90	3,008	0	11,604	23,869
96 & >	0	4,432	0	30,363	0	3,644	1,459	68,720	43,281	0	502	0	0	2,008	0	154,408
>24	16,601	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16,601
Total	16,989	34,988	38,343	249,489	1,999	92,564	23,379	283,695	87,467	124,564	3,110	65,832	26,922	24,724	223,094	1,297,159

Reported as	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK
<24	0	76	Na	Na	19	30	Na	Na	104	45
24-35	173	17,079	Na	Na	247	147	Na	Na	1,593	4,701
36-47	194	13,066	Na	Na	239	144	Na	Na	1,482	3,715
48-59	306	12,886	Na	Na	212	125	Na	Na	1,409	3,371
60-71	287	10,930	Na	Na	220	163	Na	Na	1,460	3,114
72-83	202	7,906	Na	Na	199	132	Na	Na	1,302	2,322
84-95	82	5,506	Na	Na	252	118	Na	Na	1,118	1,663
96-107	51	3,706	Na	Na	262	121	Na	Na	985	1,139
108-119	16	2,193	Na	Na	190	87	Na	Na	659	643
120-131	10	1,432	Na	Na	192	80	Na	Na	488	470
132-143	0	614	Na	Na	114	50	Na	Na	270	227
144-155	4	406	Na	Na	83	45	Na	Na	185	144
156 & >	0	707	Na	Na	99	35	Na	Na	302	259
Total	1,325	76,507	3,964	10,795	2,328	1,277	110	26,873	11,357	21,812

Table 25: Extrapolated age distribution of tested healthy slaughtered animals

Reported as	AT	BE	DK	DE	EL	ES	FI	FR	IE	IT	LU	NL	PT	SV	UK	EUIS
<24	0	148	1.685	511.012	194	1.617	272	0	0	506	3	1.057	0	43	3	516.539
24-35	0	29.318	29.782	520.017	1.762	52.769	14.056	564.954	214.405	126.122	2.780	45.729	4.588	1.005	364	1.607.650
36-47	0	78.746	58.028	293.951	3.279	50.277	24.871	621.877	85.412	93.894	3.395	84.960	9.840	1.936	35.728	1.446.193
48-59	0	75.176	55.764	258.438	3.533	56.939	23.421	367.258	37.240	94.581	2.190	83.957	11.171	2.120	64.930	1.136.717
60-71	0	56.882	41.907	214.723	3.294	52.277	17.692	299.423	32.533	83.987	9.555	68.669	10.128	1.740	63.114	955.923
72-83	0	41.238	26.895	168.452	3.183	46.593	11.816	254.504	31.287	67.889	1.267	55.127	9.600	1.258	52.011	771.120
84-95	0	29.708	17.380	127.046	2.680	41.710	7.161	209.863	14.312	53.371	1.022	42.210	8.266	686	11.884	567.299
96-107	0	0	10.043	0	2.095	29.737	0	0	0	39.395	0	26.961	6.536	0	2.576	117.342
108-119	0	0	5.249	0	1.517	23.546	0	0	0	28.722	0	14.608	5.100	0	1.995	80.737
120-131	0	0	2.832	0	1.004	18.052	0	0	0	20.359	0	8.985	3.518	0	1.518	56.268
132-143	0	0	1.482	0	743	14.230	0	0	0	15.100	0	4.863	2.612	0	1.233	40.263
144-155	0	0	762	0	486	12.946	0	0	0	11.379	0	2.488	2.070	0	794	30.925
156 & >	0	0	945	0	763	39.399	0	0	0	23.976	0	2.376	8.244	0	1.472	77.174
96 & >	0	44.968	0	243.966	0	25.599	8.768	602.278	186.090	0	2.339	0	0	1.065	0	1.115.072
<30	1.012	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.012
>30	204.647	0	0	0	0	0	0	0	0	0	0	0	0	0	0	204.647
Total	205.659	356.184	252.753	2.337.605	24.533	465.689	108.057	2.920.157	601.279	659.282	22.551	441.991	81.673	9.851	237.619	8.724.883

Reported as	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK
<24	0	24	Na	Na	8	17	Na	Na	52	53
24-35	11	15.399	Na	Na	330	234	Na	Na	17.966	6.466
36-47	473	26.750	Na	Na	700	432	Na	Na	5.728	10.930
48-59	1.150	23.694	Na	Na	611	481	Na	Na	4.610	9.911
60-71	1.954	18.780	Na	Na	647	519	Na	Na	4.537	9.179
72-83	2.366	14.323	Na	Na	556	566	Na	Na	4.269	7.544
84-95	437	11.360	Na	Na	757	568	Na	Na	4.117	6.266
96-107	9	8.207	Na	Na	884	413	Na	Na	3.656	4.835
108-119	2	5.872	Na	Na	707	400	Na	Na	2.791	3.327
120-131	0	3.874	Na	Na	715	327	Na	Na	2.229	2.533
132-143	0	2.166	Na	Na	502	300	Na	Na	1.648	1.598
144-155	0	1.377	Na	Na	471	258	Na	Na	1.273	1.219
156 & >	0	1.416	Na	Na	530	323	Na	Na	1.875	1.337
Total	6.401	133.242	19	86.595	7.418	4.838	1.089	428.452	54.751	65.199

Table 26: Extrapolated age distribution of tested BSE suspects

Reported as	AT	BE	DK	DE	EL	ES	FI	FR	IE	IT	LU	NL	PT	SV	UK	EUI5
<24	0	10	0	50	0	4	0	0	3	1	0	0	0	0	5	74
24-35	0	33	11	200	0	3	4	22	17	10	1	5	5	0	17	328
36-47	0	38	8	144	0	3	0	20	29	11	1	7	10	0	22	293
48-59	0	28	7	120	0	9	1	50	30	8	1	5	10	0	35	305
60-71	0	21	5	102	0	20	0	38	28	10	0	1	16	0	55	297
72-83	0	11	2	90	0	10	0	73	44	5	0	5	14	0	34	288
84-95	0	9	3	57	0	12	0	114	67	8	0	2	13	0	46	331
96-107	0	0	2	0	1	3	0	0	0	6	0	0	14	0	86	112
108-119	0	0	0	0	0	2	0	0	0	2	0	0	12	0	67	83
120-131	0	0	0	0	0	0	0	0	0	0	0	0	3	0	32	35
132-143	0	0	0	0	0	0	0	0	0	0	0	0	1	0	20	21
144-155	0	0	0	0	0	1	0	0	0	1	0	0	2	0	14	18
156 & >	0	0	0	0	0	4	0	0	0	1	0	0	6	0	17	28
96 & >	0	17	0	90	0	1	0	125	126	0	1	2	0	0	0	362
> 30	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	2	167	38	854	1	72	5	442	344	63	4	27	106	0	452	2.575

Reported as	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK
<24	0	0	0	Na	0	3	0	Na	13	0
24-35	0	1	0	Na	0	1	0	Na	4	2
36-47	0	0	0	Na	0	3	0	Na	6	1
48-59	0	0	0	Na	0	0	0	Na	0	0
60-71	0	0	0	Na	0	0	0	Na	4	0
72-83	0	0	0	Na	0	2	0	Na	1	0
84-95	0	0	0	Na	0	0	0	Na	0	0
96-107	0	0	0	Na	0	0	0	Na	1	0
108-119	0	0	0	Na	0	0	0	Na	1	0
120-131	0	0	0	Na	0	1	0	Na	0	0
132-143	0	0	0	Na	0	1	0	Na	1	0
144-155	0	0	0	Na	0	0	0	Na	0	0
156 & >	0	0	0	Na	0	0	0	Na	0	0
Total	0	1	0	98	0	11	0	51	32	3

Table 27: Extrapolated age distribution of tested animals culled in the frame of BSE eradication

Reported as	AT	BE	DK	DE	EL	ES	FI	FR	IE	IT	LU	NL	PT	SV	UK	EU15
<24	0	9	11	48	0	127	0	0	53	776	0	146	0	0	291	1.461
24-35	0	306	82	42	0	70	0	27	1.545	297	0	68	31	0	34	2.502
36-47	0	267	67	89	0	204	0	13	1.333	265	0	66	33	0	47	2.385
48-59	0	188	37	193	0	446	0	77	2.131	207	0	218	78	0	57	3.632
60-71	0	142	281	253	0	509	0	197	2.077	174	0	173	158	0	37	4.000
72-83	0	100	775	320	0	448	0	328	1.331	177	0	116	221	0	10	3.827
84-95	0	57	455	159	0	270	0	427	1.331	95	2	54	293	0	0	3.144
96 & >	0	55	0	21	0	181	0	600	2.184	0	0	29	0	0	0	3.070
Total	0	1.125	1.791	1.125	0	2.356	0	1.669	11.986	2.148	2	870	1.270	0	475	24.817

Reported as	CY	CZ	EE	HU	LT	LV	MT	PL	SI	SK
<24	0	1	0	0	0	0	0	Na	7	1
24-35	0	53	0	0	0	0	0	Na	3	2
36-47	0	402	0	0	0	0	0	Na	7	1
48-59	0	245	0	0	0	0	0	Na	5	0
60-71	0	0	0	0	0	0	0	Na	2	2
72-83	0	4	0	0	0	0	0	Na	0	2
84-95	0	0	0	0	0	0	0	Na	1	2
96-107	0	0	0	0	0	0	0	Na	0	1
108-119	0	0	0	0	0	0	0	Na	0	0
120-131	0	0	0	0	0	0	0	Na	1	0
132-143	0	0	0	0	0	0	0	Na	1	0
144-155	0	0	0	0	0	0	0	Na	0	0
156 & >	0	1	0	0	0	0	0	Na	0	0
Total	0	706	0	0	0	0	0	37	27	11

Chart 22: Extrapolated mean age distribution of cattle tested in different target groups in the EU15

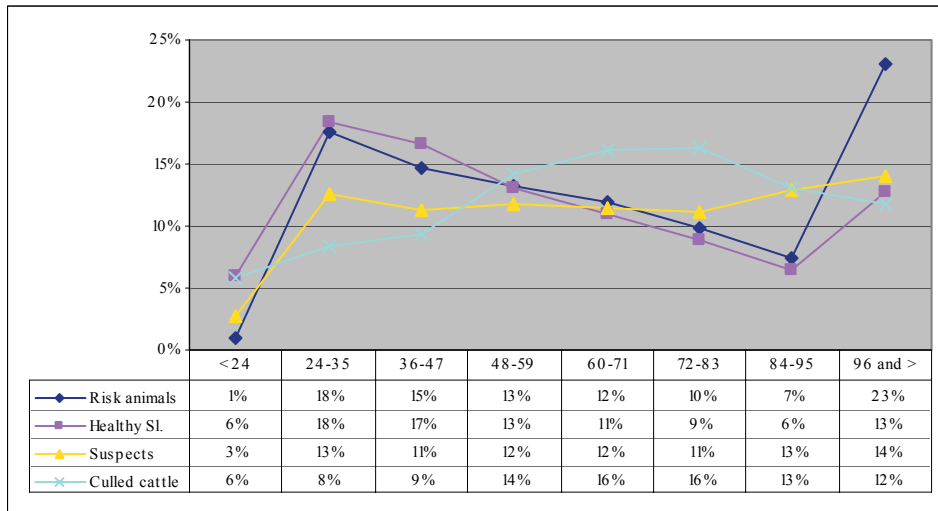


Chart 23: Extrapolated age distribution in risk animals tested in some major Member States

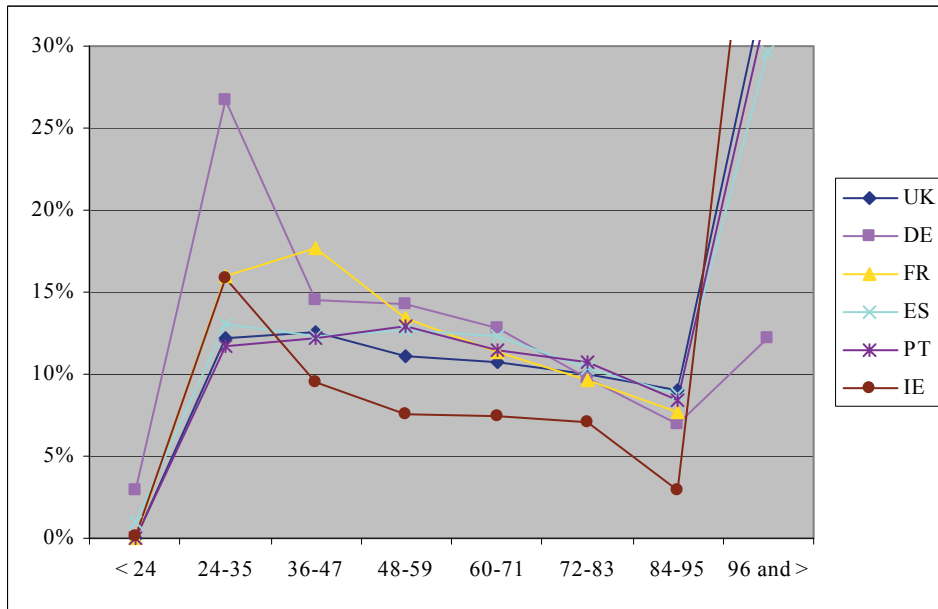


Chart 24: Extrapolated age distribution in healthy slaughtered cattle tested in some major Member States

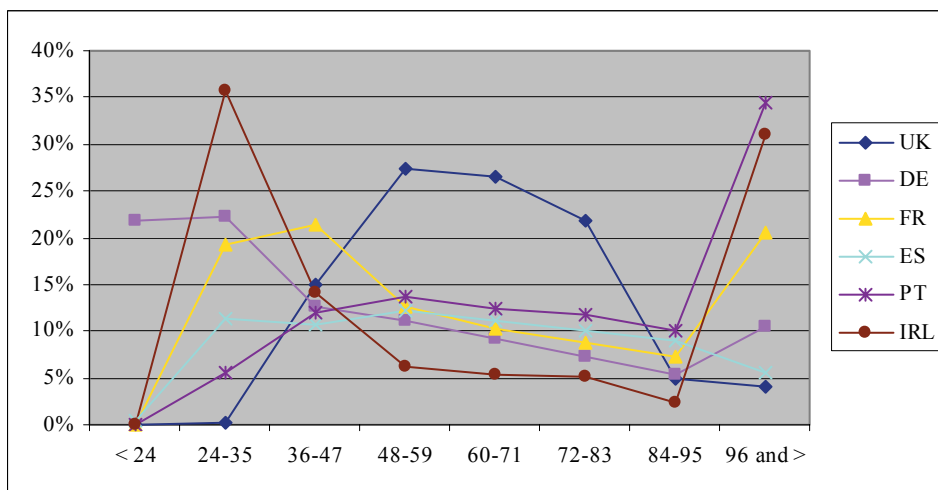


Table 28: Prevalence of BSE in cattle (positive cases per 10.000 tests) of different age: total population

	BE	DK	DE	ES	FR	IE	IT	NL	PT	UK	EU 15	CZ	PL	SI	SK
<24	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
24-35	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
36-47	0,00	0,00	0,06	0,16	0,00	0,00	0,00	0,00	0,00	0,16	0,02	0,50	0,00	1,39	0,00
48-59	0,12	0,00	0,44	1,45	0,02	0,00	0,00	0,21	2,03	1,11	0,30	0,00	0,00	0,00	0,00
60-71	0,49	0,21	0,36	7,48	0,30	0,49	0,29	0,25	18,62	2,41	1,11	0,00	Na	0,00	0,00
72-83	0,89	0,00	0,83	6,53	0,57	0,52	1,22	1,58	23,48	2,42	1,59	0,45	Na	0,00	1,01
84-95	0,93	0,49	0,83	6,39	1,25	37,19	1,25	0,62	17,39	21,51	3,64	0,00	Na	0,00	1,26
96-107		0,00		3,65			0,64	0,00	15,09	63,32		0,84	0,00	0,00	0,00
108-119		0,00		2,85			0,89	0,00	32,77	67,19		0,00	0,00	0,00	0,00
120-131		0,00		0,93			0,42	0,00	30,48	56,47		0,00	0,00	0,00	0,00
132-143		0,00		0,60			0,57	0,00	8,68	58,97		0,00	0,00	0,00	0,00
144-155		0,00		0,00			0,00	3,90	3,60	33,27		0,00	0,00	0,00	0,00
156 & >		0,00		0,89			0,72	0,00	1,78	41,92		0,00	0,00	0,00	0,00
96 & >	0,81	0,00	0,07	1,46	0,82	4,82	0,61	0,15	14,71	56,44	4,15	0,31	0,00	0,00	0,00

Table 29: Prevalence of BSE in cattle (positive cases per 10.000 tests) of different age: risk animals

	BE	DK	DE	ES	FR	IE	IT	NL	PT	UK	EU15	CZ	PL	SI	SK
<24	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
24-35	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
36-47	0,00	0,00	0,28	0,00	0,00	0,00	0,00	0,00	0,00	0,36	0,11	0,00	0,00	6,75	0,00
48-59	0,00	0,00	1,13	2,55	0,00	0,00	0,00	1,98	5,76	1,61	0,88	0,00	0,00	0,00	0,00
60-71	4,56	0,00	0,94	13,22	1,55	3,08	0,56	0,00	42,07	5,41	3,49	0,00	0,00	0,00	0,00
72-83	2,90	0,00	2,89	20,74	4,05	0,00	4,35	3,81	41,37	5,40	5,68	1,26	0,00	0,00	4,31
84-95	3,90	0,00	2,32	12,32	8,26	158,85	3,73	0,00	39,51	17,91	12,66	0,00	0,00	0,00	0,00
96-107		0,00		10,36			0,00	0,00	27,98	43,08		0,00	0,00	0,00	0,00
108-119		0,00		11,05			1,98	0,00	68,80	46,37		0,00	0,00	0,00	0,00
120-131		0,00		2,96			2,95	0,00	50,13	47,38		0,00	0,00	0,00	0,00
132-143		0,00		4,07			0,00	0,00	37,31	51,84		0,00	0,00	0,00	0,00
144-155		0,00		0,00			0,00	0,00	14,56	32,91		0,00	0,00	0,00	0,00
156 & >		0,00		1,88			5,54	0,00	0,00	38,78		0,00	0,00	0,00	0,00
96 & >	2,26	0,00	0,33	5,11	5,24	15,48	1,70	0,00	27,47	43,85	16,51	0,00	0,00	0,00	0,00

Table 30: Prevalence of BSE in cattle (positive cases per 10.000 tests) of different age: healthy slaughtered animals

	BE	DK	DE	ES	FR	IE	IT	NL	PT	UK	EU 15	CZ	PL	SI	SK
<24	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
24-35	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
36-47	0,00	0,00	0,00	0,20	0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,75	0,00	0,00	0,00
48-59	0,13	0,00	0,23	0,70	0,03	0,00	0,00	0,00	0,90	0,31	0,13	0,00	0,00	0,00	0,00
60-71	0,18	0,00	0,23	3,83	0,10	0,00	0,24	0,29	8,89	0,79	0,49	0,00	Na	0,00	0,00
72-83	0,73	0,00	0,36	3,00	0,04	0,32	0,59	0,91	12,50	0,00	0,60	0,00	Na	0,00	0,00
84-95	0,67	0,58	0,47	4,32	0,33	4,89	0,75	0,71	3,63	0,84	0,92	0,00	Na	0,00	1,60
96-107		0,00		2,02			0,51	0,00	7,65	11,65		1,22	0,00	0,00	0,00
108-119		0,00		0,85			0,70	0,00	5,88	20,06		0,00	0,00	0,00	0,00
120-131		0,00		0,55			0,00	0,00	25,58	32,94		0,00	0,00	0,00	0,00
132-143		0,00		0,00			0,66	0,00	0,00	16,23		0,00	0,00	0,00	0,00
144-155		0,00		0,00			0,00	4,02	0,00	12,59		0,00	0,00	0,00	0,00
156 & >		0,00		0,76			0,00	0,00	2,43	20,39		0,00	0,00	0,00	0,00
96 & >	0,67	0,00	0,00	0,73	0,30	1,24	0,36	0,17	6,77	18,78	0,65	0,44	0,00	0,00	0,00

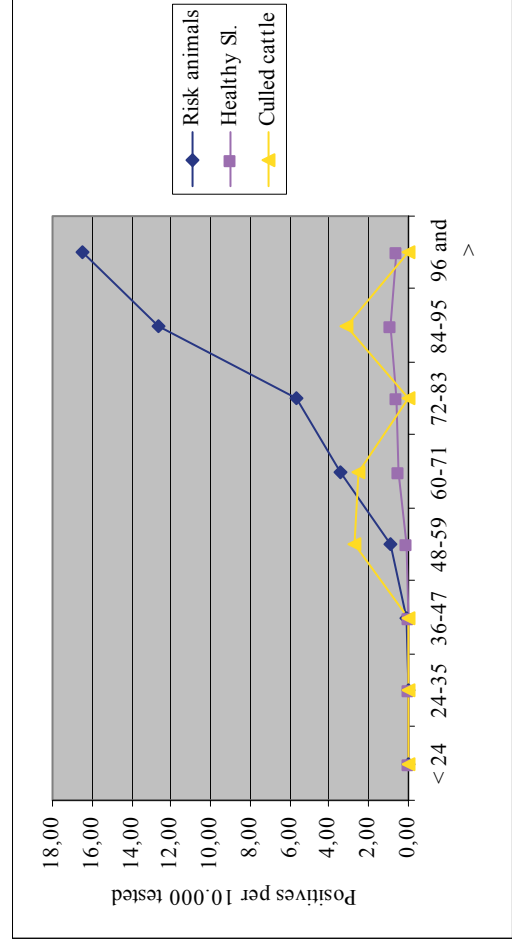
Table 31: Prevalence of BSE in cattle (positive cases per 10.000 tests) of different age: culled bovine animals

	BE	DK	DE	ES	FR	IE	IT	NL	PT	UK	EU 15	CZ	PL	SI	SK
<24	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
24-35	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
36-47	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
48-59	0,00	0,00	51,94	0,00	0,00	0,00	0,00	0,00	0,00	0,00	2,75	0,00	0,00	0,00	0,00
60-71	0,00	0,00	0,00	19,65	0,00	0,00	0,00	0,00	0,00	0,00	2,50	0,00	0,00	0,00	0,00
72-83	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
84-95	0,00	0,00	0,00	0,00	0,00	7,51	0,00	0,00	0,00	0,00	3,18	0,00	0,00	0,00	0,00
96 & >	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00

Table 32: Prevalence of BSE in cattle (positive cases per 10.000 tests) of different age: BSE suspects

	BE	DK	DE	ES	FR	IE	IT	NL	PT	UK	EU 15	CZ	PL	SI	SK
<24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24-35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36-47	0	0	69	0	0	0	0	0	0	0	34	0	0	0	0
48-59	0	0	166	3333	0	0	0	0	0	1135	295	0	0	0	0
60-71	0	2000	98	6000	526	0	0	0	1875	542	742	0	Na	0	0
72-83	0	0	332	3000	548	228	0	4000	4286	1753	867	0	0	0	0
84-95	0	0	351	3333	351	2698	0	0	5385	6910	2024	0	0	0	0
96-107	0	0		3333			1667		2143	6545		0	0	0	0
108-119	0	0		5000			0		7500	6227		0	0	0	0
120-131	0	0		0			0		0	5277		0	0	0	0
132-143	0	0		0			0		0	5463		0	0	0	0
144-155	0	0		0			0		0	4967		0	0	0	0
156 & >	0	0		0			0		0	4090		0	0	0	0
96 & >	0	0	111	1818	80	1744	1000	0	3158	5918	2712	0	Na	0	0

Chart 25: Prevalence of BSE per target group in cattle of different age in the EU15



Charts 26: BSE prevalence (positive per 10.000 cattle tested) in healthy slaughtered cattle in Member States with more than 10 positive cases in 2003 (NL is used as reference)

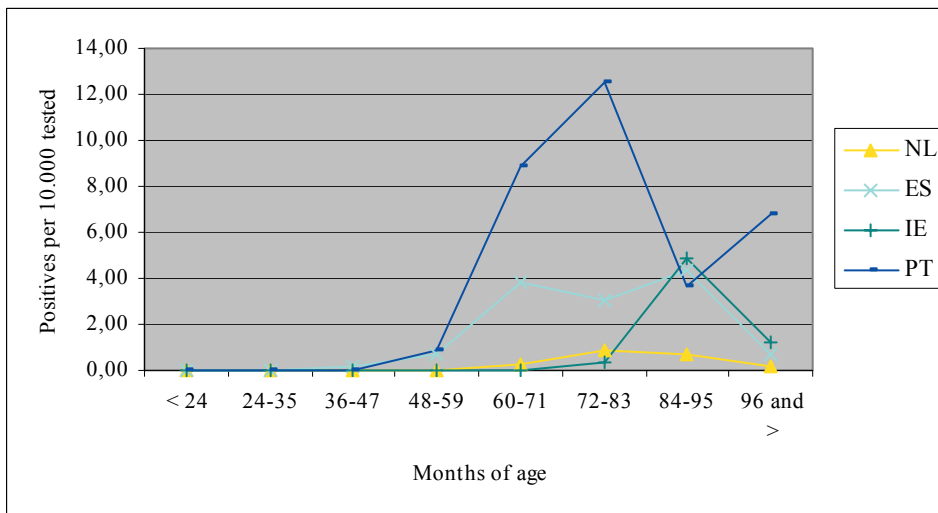
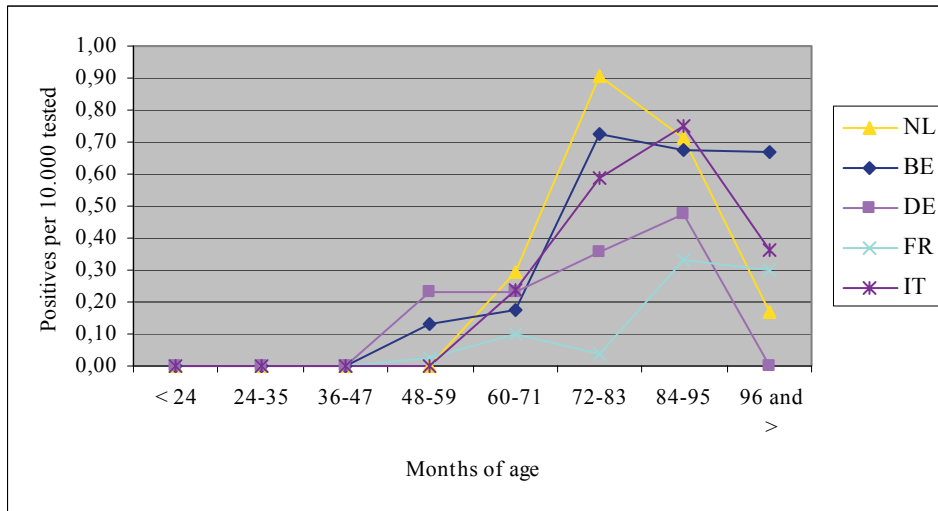
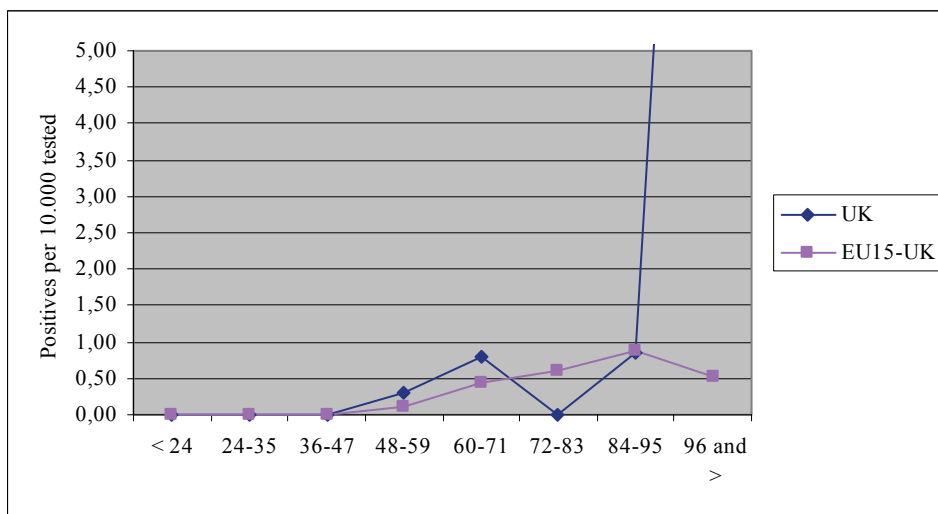


Chart 27: BSE prevalence (positive/10.000 cattle tested) in healthy slaughtered cattle in the EU15



Charts 28: BSE prevalence (positive per 10.000 cattle tested) in risk animals in Member States with more than 10 positive case in 2003 (NL is used as reference)

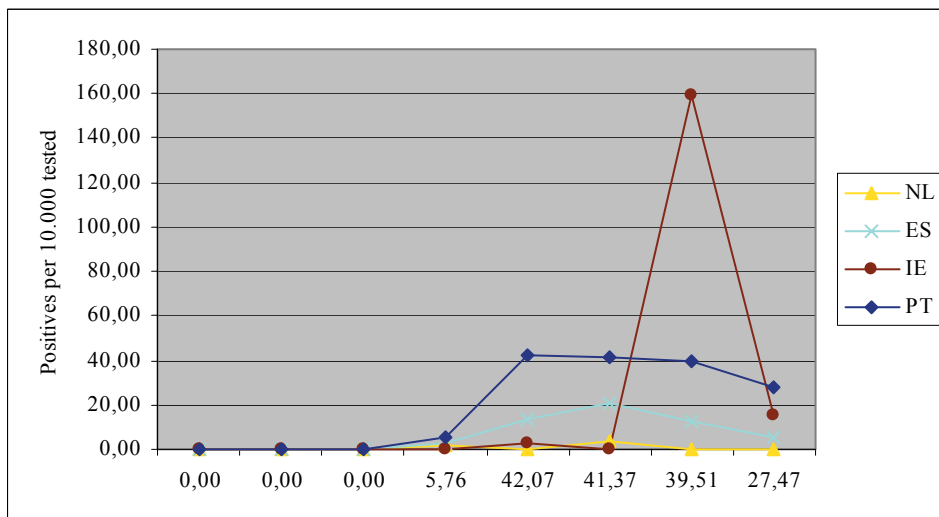
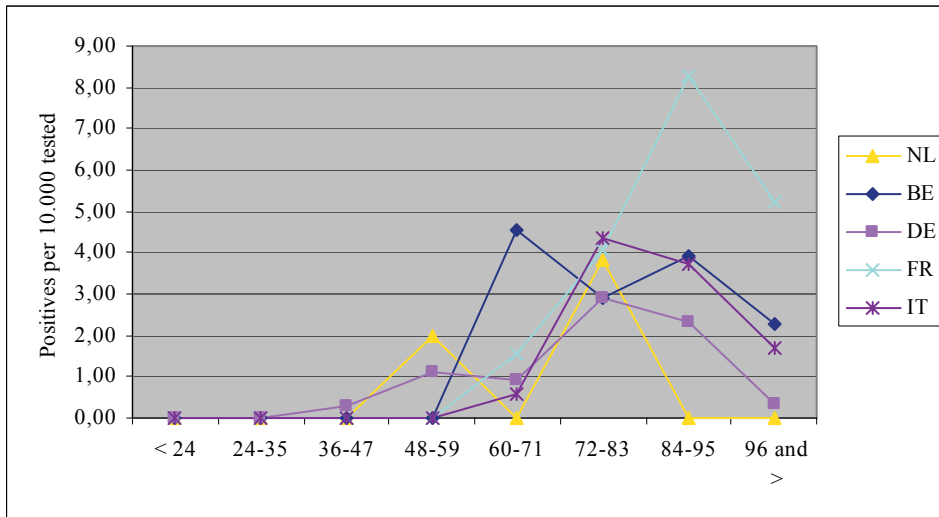
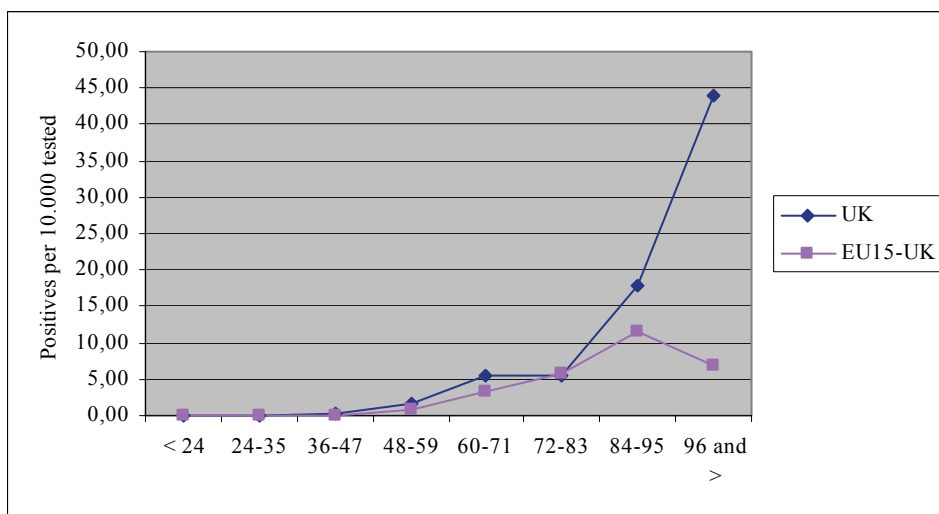
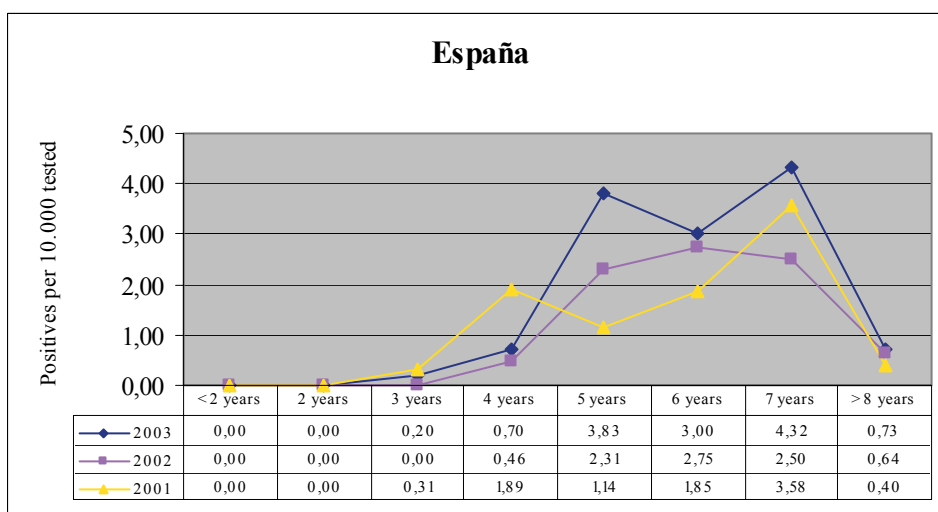
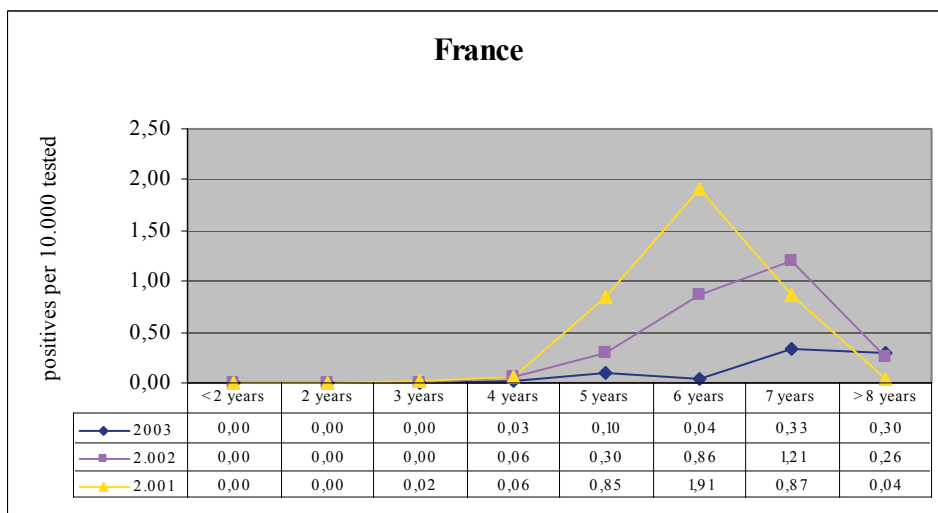
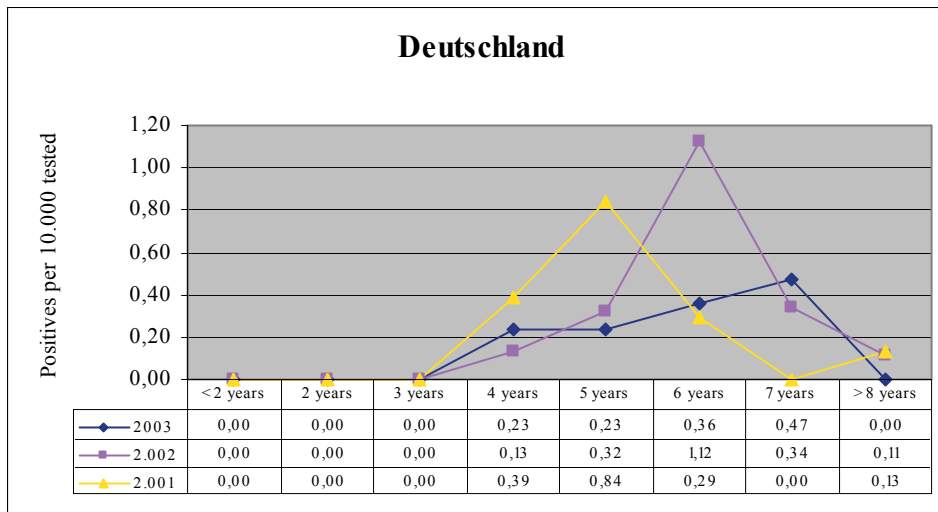


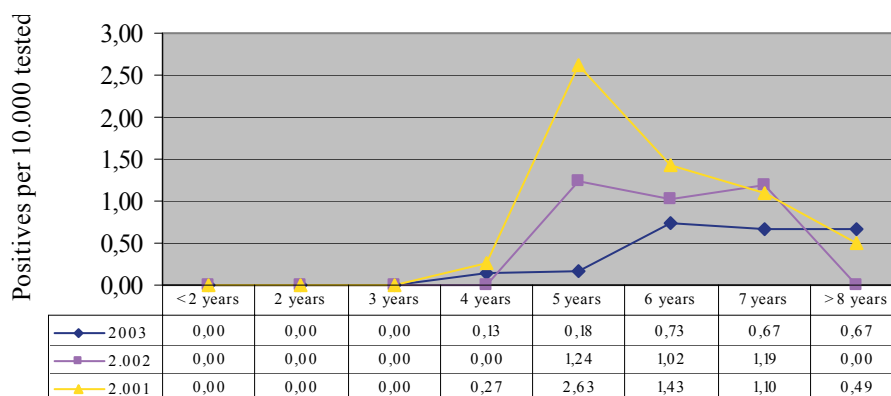
Chart 29: BSE prevalence (positive per 10.000 cattle tested) in risk animals in the EU15



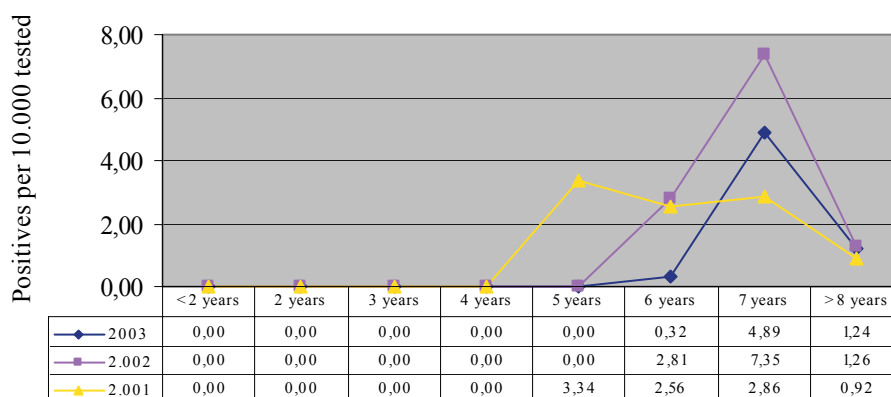
Charts 30: Comparison of the prevalence of BSE in healthy slaughtered cattle of different age in 2001, 2002 and 2003



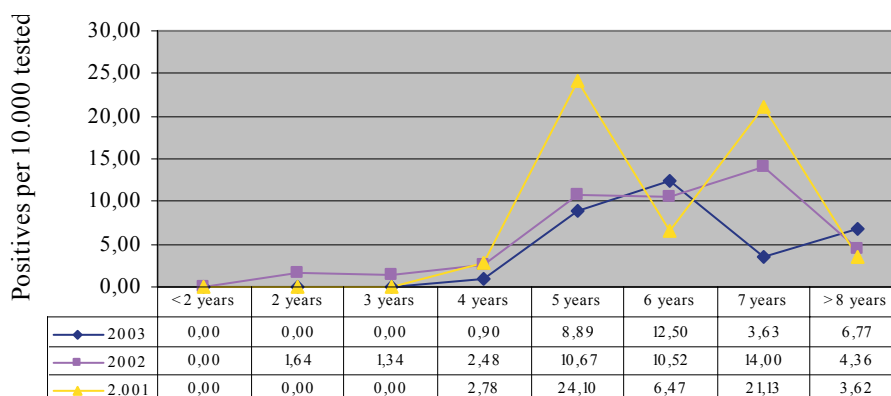
België/Belgique

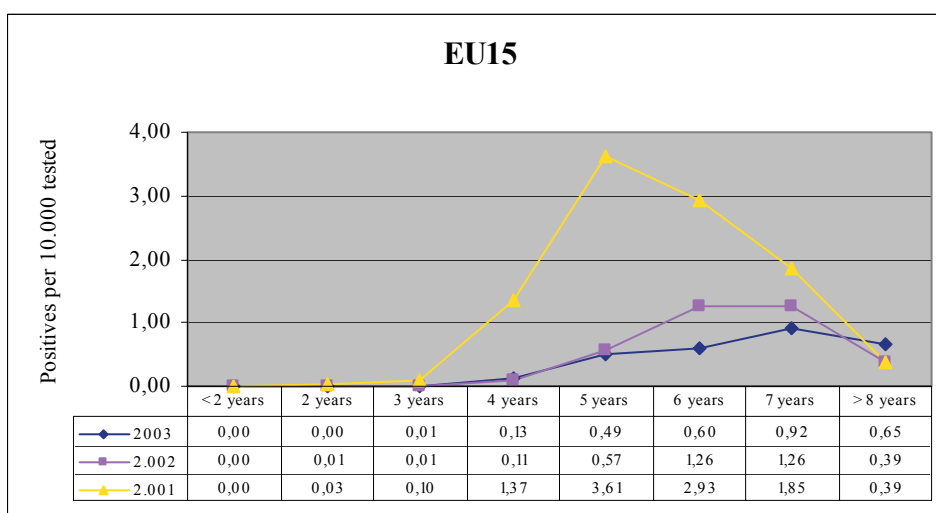
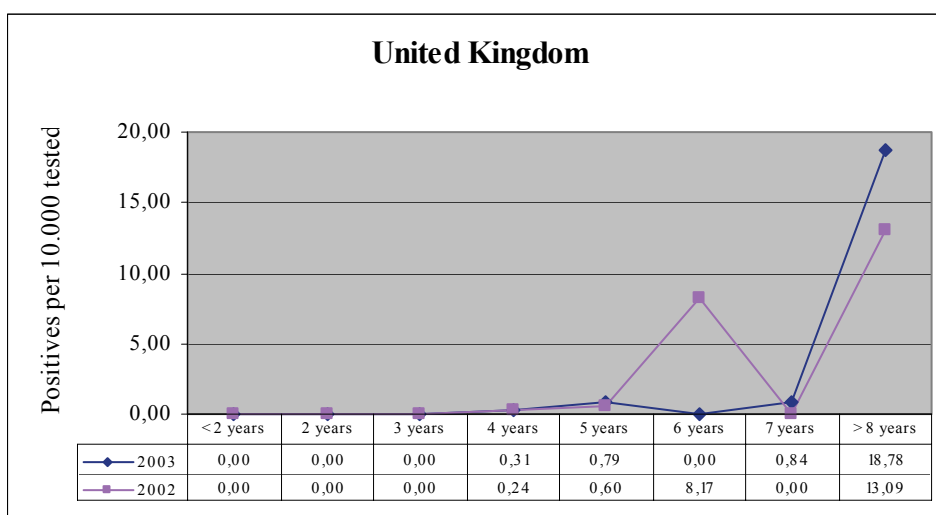


Ireland



Portugal





Comments on the prevalence of BSE in different age groups

The data in the tables and the figures, in particular those concerning healthy slaughtered cattle, indicate differences between Member States with regard to the testing programme in young cattle. In the United Kingdom, the testing of healthy slaughtered cattle was concentrated on above 42 months old cattle born after the reinforced feed ban was considered effective (August 1996). A high number of tested young cattle may decrease the overall prevalence of BSE and the prevalence in a target group. Therefore differences in prevalence of BSE between Member States should be compared within the same age and target group.

Tables 28 to 32 allow a comparison between Member States within a particular target and age group and is illustrated in Charts 26 to 29. However, the results should be interpreted with caution if the number of positive cases within a target and age group is limited.

Chart 30 illustrates the evolution over one year of the prevalence per age group in healthy slaughtered bovine animals. It indicates a lower prevalence in young animals and a shift to older bovine animals in 2003 compared to 2002 in most Member States. This trend started already in 2002.

4.7 BSE IN YOUNG BOVINE ANIMALS

Chart 31: Number of positive cases below 60 months of age in the EU25

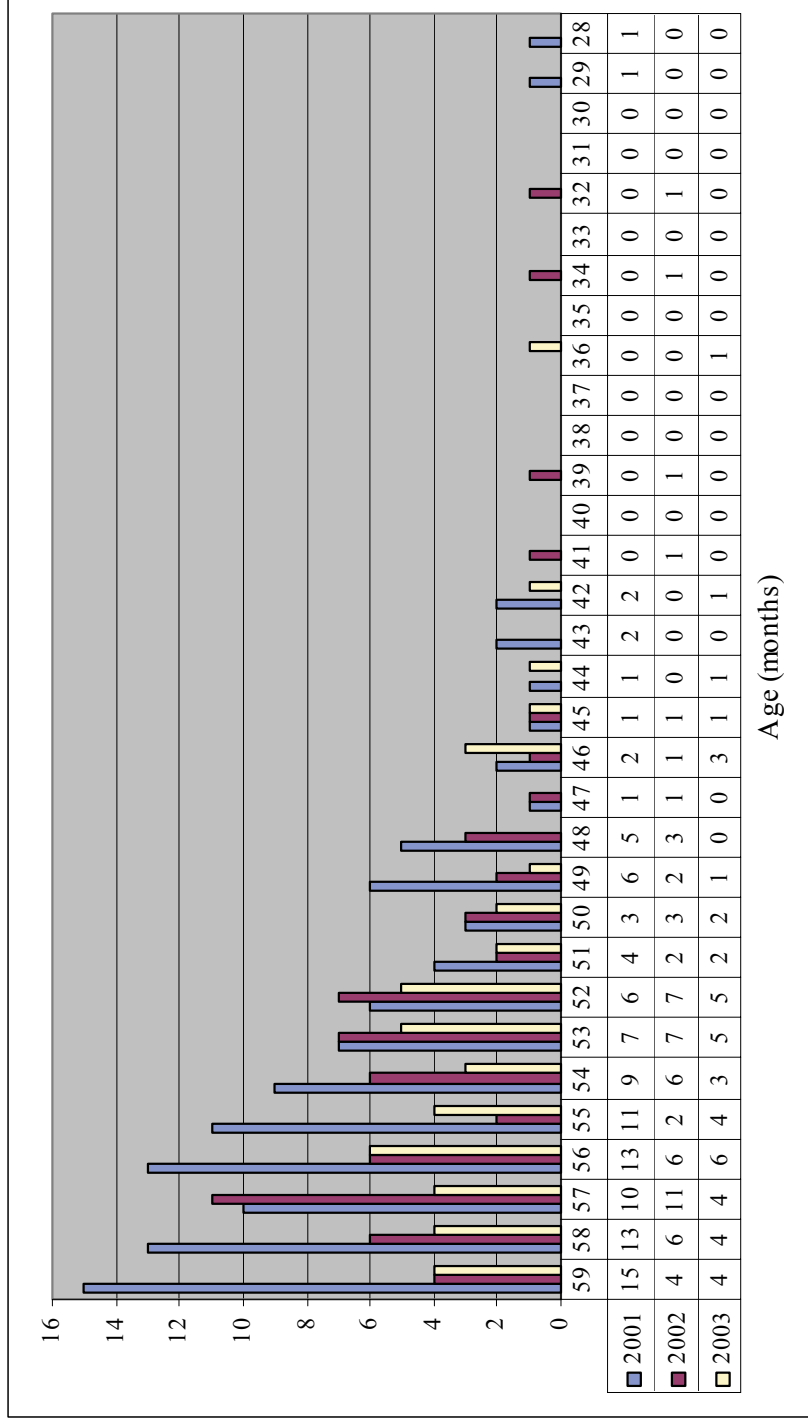


Table 33: BSE cases prevalence in cattle born in 1996 or later, detected in 2001, 2002 or 2003

	Cattle population ≥ 2 years old (x 1000)	Prevalence (cases per 1 Mio cattle ≥ 2 years old) of cattle born in					
		1996	1997	1998	1999	2000	2001
		Belgique/België	1.424	26,0	7,7	0,7	0,0
Danmark	834	7,2	2,4	2,4	1,2	0,0	0,0
Deutschland	6.170	29,9	4,7	2,9	2,1	0,0	0,0
Ellas	325	3,1	0,0	0,0	0,0	0,0	0,0
España	3.530	24,6	27,2	9,3	1,4	0,3	0,0
France	10.817	6,8	2,8	0,7	0,0	0,0	0,0
Ireland	3.220	40,1	2,5	0,0	0,6	0,0	0,0
Italia	2.966	14,8	6,7	0,7	0,0	0,0	0,0
Luxembourg	95	10,5	0,0	0,0	0,0	0,0	0,0
Nederland	1.770	16,4	5,6	2,3	0,6	0,0	0,0
Österreich	974	1,0	0,0	0,0	0,0	0,0	0,0
Portugal	779	82,2	52,6	24,4	2,6	0,0	0,0
United Kingdom	4.919	17,7	8,1	3,9	1,2	0,0	0,0
EU 15 total 2001	39.700	6,2	1,1	0,1	0,0	0,0	0,0
EU 15 total 2002	39.000	7,0	2,3	0,8	0,2	0,0	0,0
EU 15 total 2003	37.823	4,2	3,8	1,8	0,6	0,03	0,0
Česká Republika	683	0,0	2,9	0,0	0,0	2,9	0,0
Polska	3.175	0,9	0,9	0,3	0,0	0,6	0,0
Slovenija	214	4,7	0,0	0,0	4,7	0,0	0,0
Slovenská Rep.	287	10,5	3,5	0,0	0,0	0,0	0,0



 Evolution 2001→2002
 Evolution 2002→2003

Chart 32: Prevalence (cases/1 Mio cattle pop. ≥ 2 years old) detected in 2001, 2002 or 2003 and born in 1996

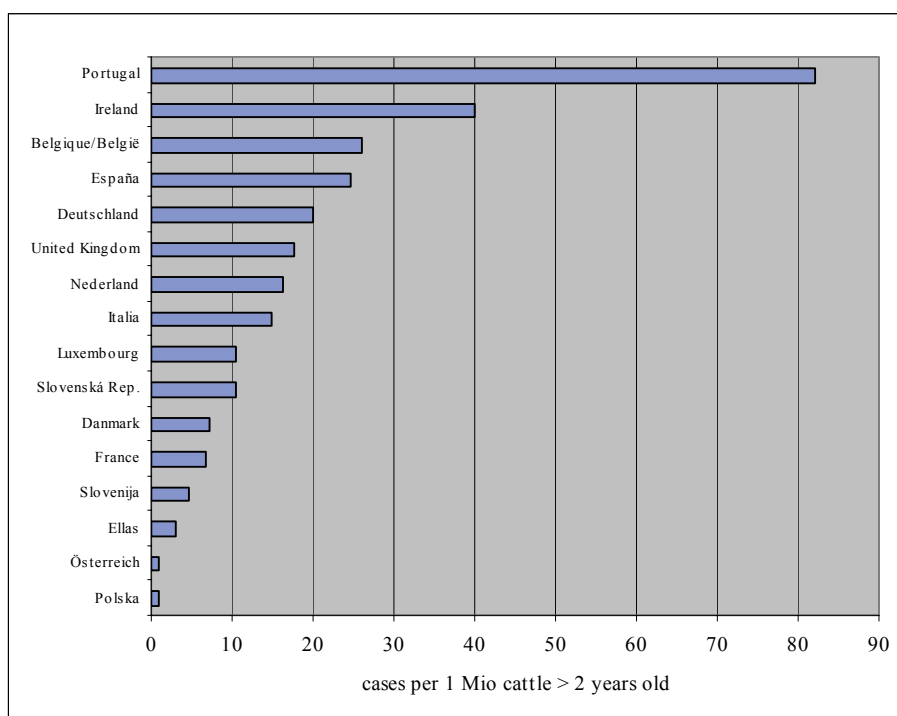


Chart 33: Prevalence (cases/1 Mio cattle pop. \geq 2 years old) detected in 2001, 2002 or 2003 and born in 1997

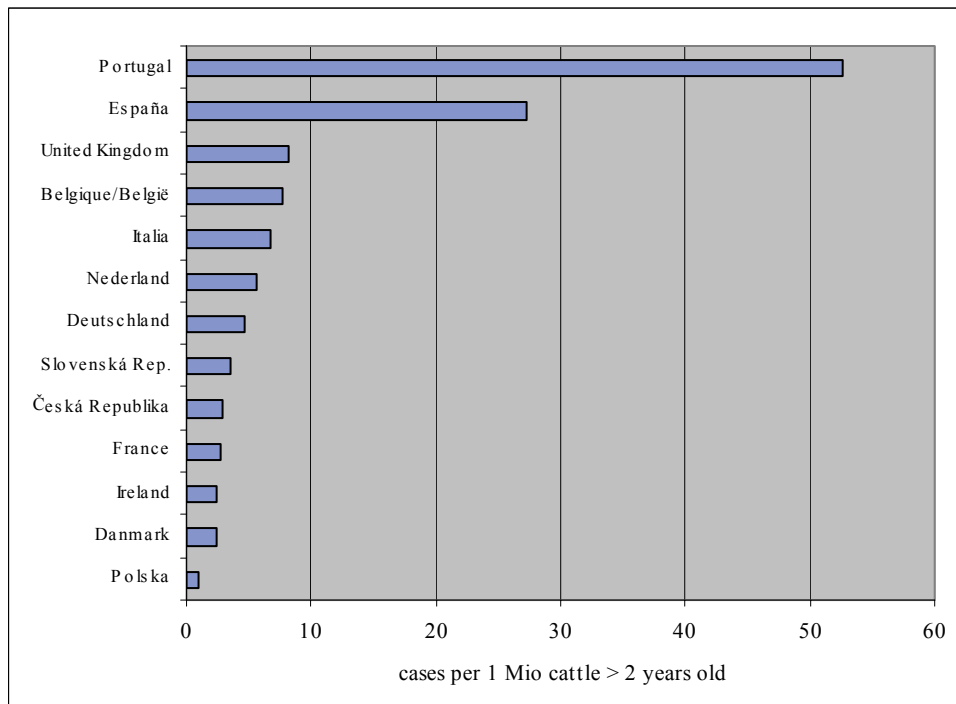


Chart 34: Prevalence (cases/1 Mio cattle pop. \geq 2 years old) detected in 2001, 2002 or 2003 and born in 1998

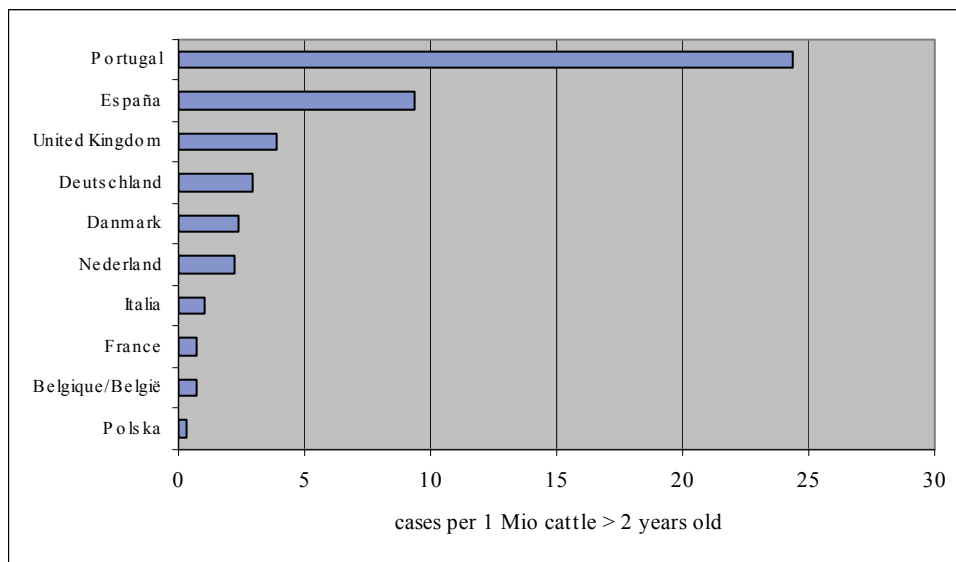


Chart 35: Prevalence (cases/1 Mio cattle pop. \geq 2 years old) detected in 2001, 2002 or 2003 and born in 1999

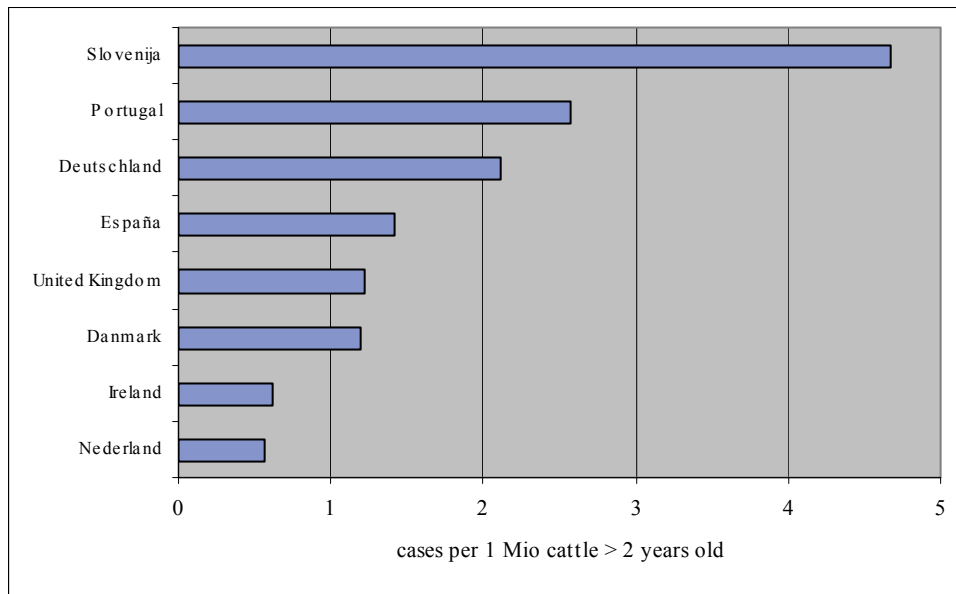


Chart 36: Prevalence (cases/10.000 tested) detected in 2002 or 2003 between 24 and 47 months of age

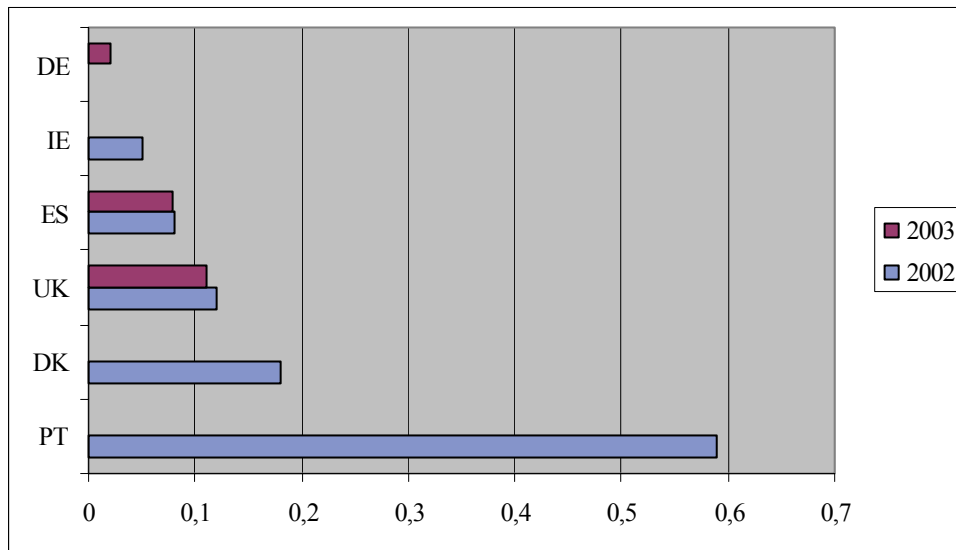


Chart 37: Prevalence (cases/10.000 tested) detected in 2002 or 2003 between 48 and 59 months of age

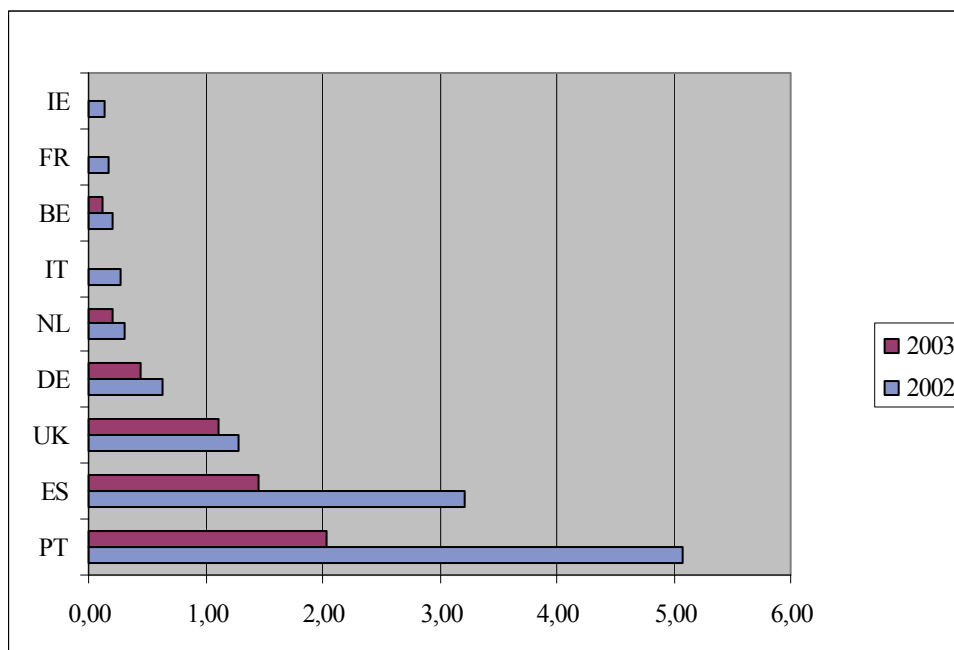


Table 34: Age and date of birth distribution in cases born in 1996 or later reported since the beginning of 2001 until March 2004 in the EU15

Year of Birth	Age (months)											
	24-29	30-35	36-41	42-47	48-53	54-59	60-65	66-71	72-77	78-83	84-89	90-95
1996				1	10	55	113	158	132	116	74	44
1997		0	0	6	27	40	56	77	67	30	2	
1998	2	0	0	3	22	26	40	34	3			
1999	0	2	2	5	15	14	3					
2000	0	0	1	1	1							
2001	0	0	0									

Underestimated figures because the monitoring was more limited before July 2001

Provisional figure which still may increase by future monitoring

Chart 38: Age pattern of positive cases born since 1996 and detected since 2001 in the EU15

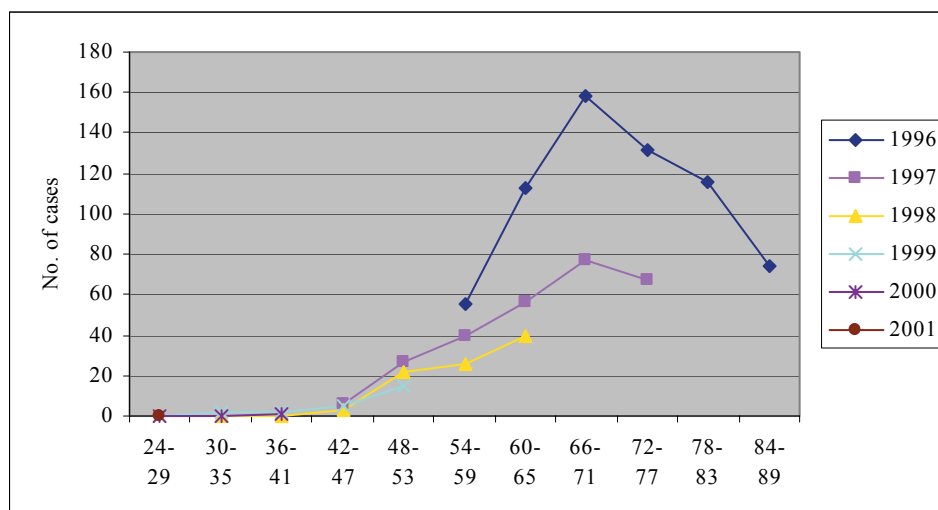


Table 35: Details on positive cases < 48 months detected in 2003 in the EU25

Age (months)	Member State	Target group	Date of birth
36	Spain (EU15)	Healthy slaughter	11/12/2000
42	Czech Republic (new MS)	Healthy slaughter	15/4/2000
44	Slovenia (new MS)	Fallen Stock	12/7/1999
45	Germany (EU15)	Suspect	24/12/1999
46	Czech Republic (new MS)	Healthy slaughter	15/1/2000
46	United Kingdom (EU15)	Emergency slaughter	12/03/1999
46	Germany (EU15)	Fallen Stock	24/12/1999

In 2002 and 2001, respectively 7 and 10 cases below 48 months were detected in the EU15 (2003: 4 cases in EU15).

Comments on BSE in young animals

Comparisons in this section should be interpreted with caution since the number of cases born after 1996 is rather low. However, the decreasing prevalence by date of birth in Table 33 may be an indication of the effectiveness of measures to prevent BSE infection in cattle in certain Member States in the period 1996 to 1999. In some Member States the trend is not consistently decreasing.

Although the total prevalence in the UK is slightly underestimated due to the differences in the monitoring programme, the prevalence in the UK in cattle born in 1996 or later can be compared with other Member States. It seems to be similar to several other MS.

Charts 36 and 37, and Table 35 illustrate the reduction of BSE cases in young cattle detected in 2003 as compared to 2002. In the EU15 in 2003, 43 cases below 60 months were detected compared to 66 in 2002 (see chart 30 which includes also 3 cases detected in new Member States in 2003). The reduction (35%) is similar as the overall reduction.

Once more information becomes available in the coming year(s), it may be possible to make an estimation of BSE cases to be expected in the future by evaluating the evolution of the figures from left to right in Table 32 or by completing the curves to the right in Charts 38.

5. SUMMARY OF SCRAPIE TESTING IN OVINE AND CAPRINE ANIMALS DURING 2003

The information is extracted directly from the monthly reports since January 2003. The monthly information is often updated and/or corrected by the Member States in subsequent reports. The information shown in the following summaries is updated according to the information received on 1 May 2004.

5.1 SAMPLING

Table 36: Number of tests performed in ovine animals per target group

	Healthy slaughtered	Risk animals	Suspects	Culling	Others or unspecified	Total
Belgique/België	2.376	496	6	205	0	3.083
Danmark	871	1.320	5	0	0	2.196
Deutschland	20.116	48.629	353	3.429	0	72.527
Ellas	22.613	793	163	236	0	23.805
España	49.940	12.950	57	6.601	0	69.548
France	44.687	18.989	69	16.239	0	79.984
Ireland	51.588	2.848	44	510	0	54.990
Italia*	35.274	5.024	19	3.641	810	44.768
Luxembourg	213	244	0	0	0	457
Nederland	21.140	4.000	61	100	0	25.301
Österreich	4.225	3.255	1	0	219	7.700
Portugal	10.703	243	0	31	3.800	14.777
Suomi/Finland	1.990	683	0	0	0	2.673
Sverige	5.177	2.849	25	121	0	8.172
United Kingdom	72.518	5.126	494	0	0	78.138
Total EU 15	343.431	107.449	1.297	31.113	4.785	488.119
Česká Republika	426	2.528	0	16	0	2.970
Slovenská Rep.	3.924	214	1	1	562	4.702
Norway	33.524	3.367	15	1.072	0	37.978

*: including 509 samples of unspecified species

Table 37: Number of tests performed in caprine animals per target group

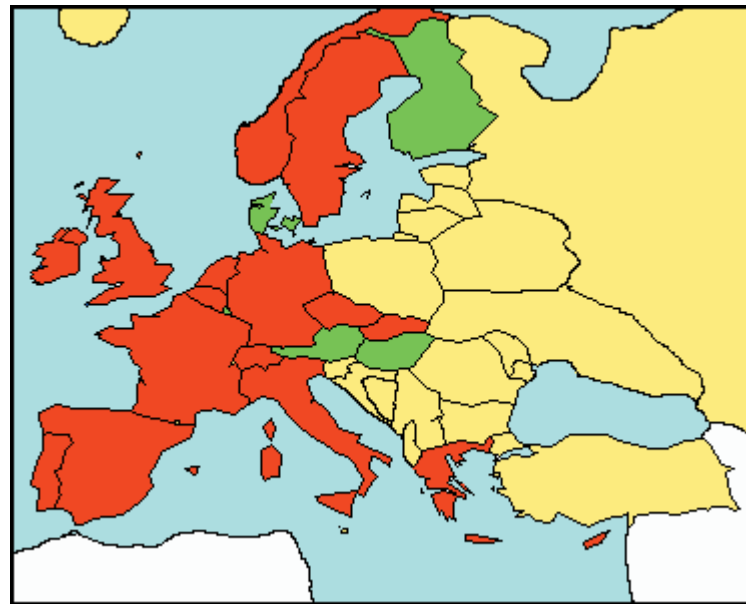
	Healthy slaughtered	Risk animals	Suspects	Culling	Others or unspecified	Total
Belgique/België	70	46	4	0	0	120
Danmark	93	352	3	0	0	448
Deutschland	1.216	3.559	20	44	0	4.839
Ellas	6.425	526	28	121	0	7.100
España	6.893	1.024	3	18	0	7.938
France	11.223	12.026	1	4.109	0	27.359
Ireland	0	1	0	0	0	1
Italia	3.642	1.193	2	256	133	5.226
Luxembourg	54	2	0	0	0	56
Nederland	3.654	1.456	0	0	0	5.110
Österreich	609	786	0	0	23	1.418
Portugal	2.174	44	0	0	569	2.787
Suomi/Finland	57	171	0	22	0	250
Sverige	51	70	4	0	0	125
United Kingdom	191	54	0	0	0	245
Total EU 15	36.352	21.310	65	4.570	714	63.022
Česká Republika	42	231	0	1	0	274
Slovenská Rep.	4	4	0	0	0	8
Norway	1.610	221	2	0	0	1.833

5.2 POSITIVE CASES

Table 38: Total positives detected in ovine and caprine animals

	Sheep		Goats		Number of herds
	Total tests	Total positives	Total tests	Total positives	
Belgique/België	3.083	2	120	0	2
Danmark	2.196	0	448	0	0
Deutschland	72.527	23	4.839	0	23
Ellas	23.805	124	7.100	19	136
España	69.548	138	7.938	1	31
France	79.984	750	27.359	19	131
Ireland	54.990	49	1	0	39
Italia	44.768	190	5.226	6	34
Luxembourg	457	0	56	0	0
Nederland	25.301	63	5.110	0	63
Österreich	7.700	0	1.418	0	0
Portugal	14.777	6	2.787	0	1
Suomi/Finland	2.673	0	250	0	0
Sverige	8.172	4	125	0	4
United Kingdom	78.138	438	245	1	435
Total EU 15	488.119	1.787	63.022	46	899
Česká Republika	2.970	12	274	0	2
Slovenská Rep.	4.702	3	8	0	3
Norway	37.977	15	1.835	0	15

Map 2: European Countries where scrapie was reported in 2003



■ countries with cases
■ countries without cases having submitted data on active monitoring
■ countries without cases and not having submitted data

Table 39: Positives detected by active monitoring and passive surveillance (suspects) in ovine and caprine animals

	Sheep				Goats			
	Population x 1000	Positives		No. of suspects in population*	Population x 1000	Positives		No. of suspects in population*
		Act. Mon.	Suspects			Act. Mon.	Suspects	
Belgique/België	146	2	0	41	26	0	0	154
Danmark	105	0	0	48	10	0	0	300
Deutschland	2.637	23	0	134	160	0	0	125
Ellas	9.042	69	55	18	5.362	9	10	5
España	23.045	124	14	2	2.952	1	0	1
France	8.962	709	41	8	1.228	19	0	1
Ireland	5.907	33	16	7	9	0	0	0
Italia	7.952	172	18	2	961	5	1	2
Luxembourg	7	0	0	0	2	0	0	0
Nederland	1.276	51	12	48	274	0	0	0
Österreich	304	0	0	3	56	0	0	0
Portugal	3.411	6	0	0	509	0	0	0
Suomi/Finland	67	0	0	0	5	0	0	0
Sverige	451	2	2	55	5	0	0	800
United Kingdom	24.574	58	380	20	88	1	0	0
Total EU15	87.886	1249	538	15	11.647	35	11	6
Česká Republika	103	12	0	0	38	0	0	0
Slovenská Rep.	325	2	1	3	39	0	0	0
Norway	928	14	1	16	46	0	0	43

*: reported suspects per 1.000.000 animals in the total population

Chart 39: Number of scrapie cases per month in sheep in the EU15

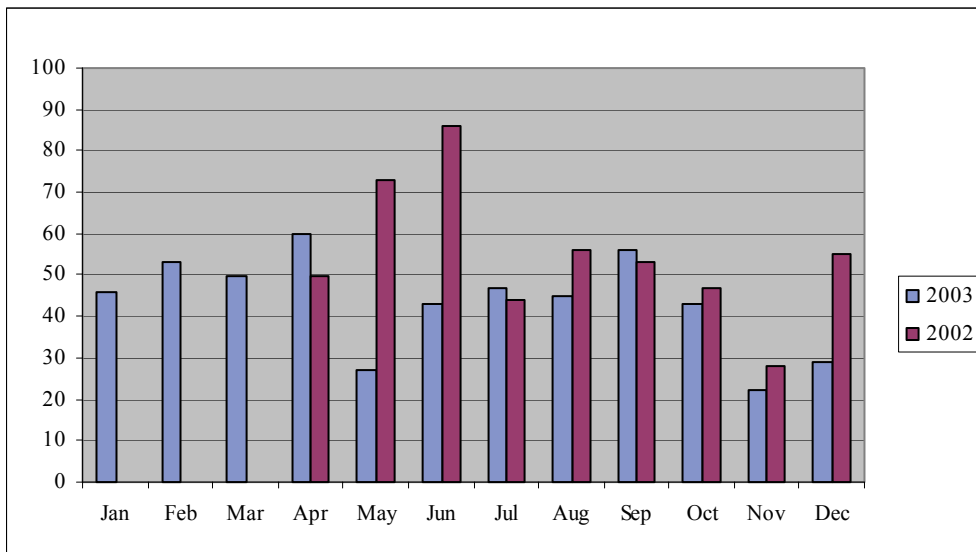
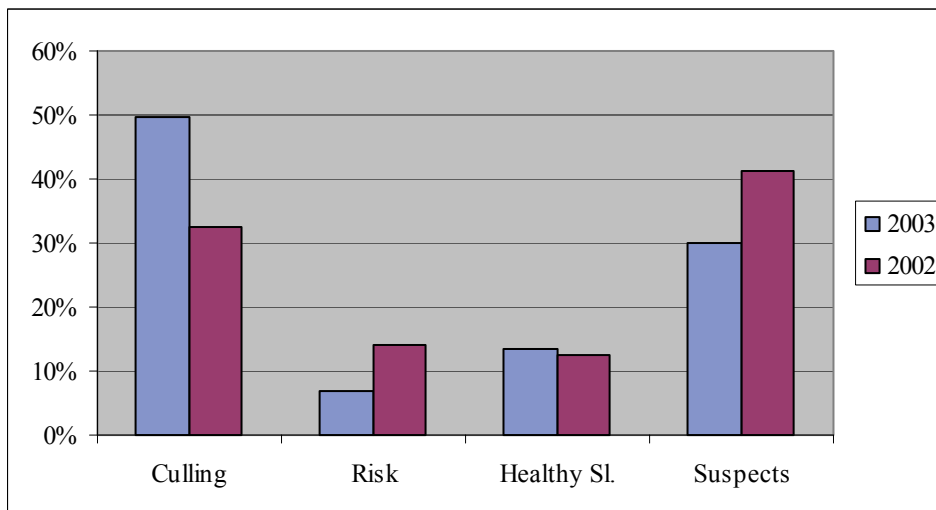


Chart 40: Percentage of cases per target group in sheep



5.3 TESTING BY TARGET GROUP

Table 40: Positives in healthy slaughtered ovine and caprine animals

	Sheep				Goats			
	Total tests	Total positives	Ratio* 2003	Ratio* 2002	Total tests	Total positives	Ratio* 2003	Ratio* 2002
Belgique/België	2.376	0	0,0	4,7	70	0	0,0	0,0
Danmark	871	0	0,0	0,0	93	0	0,0	0,0
Deutschland	20.116	9	4,5	3,9	1.216	0	0,0	0,0
Ellas	22.613	49	21,7	19,2	6.425	9	14,0	5,4
España	49.940	19	3,8	2,5	6.893	1	1,5	0,0
France	44.687	46	10,3	9,5	11.223	4	3,6	1,4
Ireland	51.588	9	1,7	2,4	0	0		
Italia	35.274	14	4,0	13,2	3.642	2	5,5	9,7
Luxembourg	213	0	0,0	0,0	54	0	0,0	
Nederland	21.140	45	21,3	14,8	3.654	0	0,0	0,0
Österreich	4.225	0	0,0	0,0	609	0	0,0	0,0
Portugal	10.703	6	5,6	0,0	2.174	0	0,0	0,0
Suomi/Finland	1.990	0	0,0	0,0	57	0	0,0	172,4
Sverige	5.177	2	3,9	0,0	51	0	0,0	0,0
United Kingdom	72.518	45	6,2	10,9	191	1	52,4	0,0
Total EU 15	343.431	244	7,0	8,1	36.352	17	4,7	3,1
Česká Republika	426	1	23,5		42	0	0,0	
Slovenská Rep.	3.924	1	2,5		4	0	0,0	
Norway	33.524	5	1,5	2,2	1.610	0	0,0	0,0

*: positives per 10.000 animals tested

Chart 41: Prevalence of positives in healthy slaughtered ovine animals in the EU15

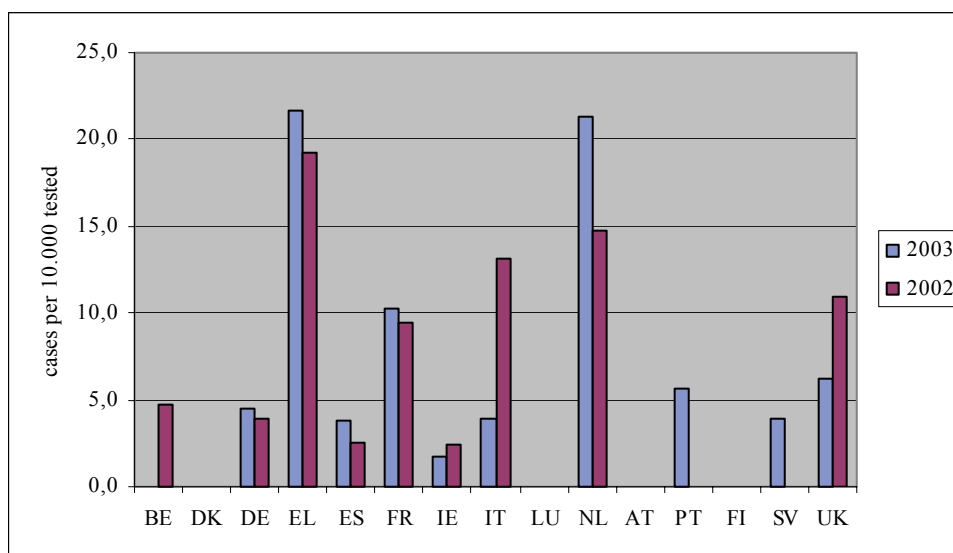


Table 41: Positives in risk ovine and caprine animals

	Sheep				Goats			
	Total tests	Total positives	Ratio* 2003	Ratio* 2002	Total tests	Total positives	Ratio* 2003	Ratio* 2002
Belgique/België	496	2	40,3	27,1	46	0	0,0	0,0
Danmark	1.320	0	0,0	0,0	352	0	0,0	0,0
Deutschland	48.629	13	2,7	3,7	3.559	0	0,0	0,0
Ellas	793	13	163,9	193,1	526	0	0,0	0,0
España	12.950	8	6,2	4,6	1.024	0	0,0	11,1
France	18.989	34	17,9	68,7	12.026	6	5,0	10,5
Ireland	2.848	18	63,2	63,2	1	0	0,0	0,0
Italia	5.024	13	25,9	83,3	1.193	0	0,0	17,4
Luxembourg	244	0	0,0	0,0	2	0	0,0	
Nederland	4.000	6	15,0	28,5	1.456	0	0,0	0,0
Österreich	3.255	0	0,0	0,0	786	0	0,0	0,0
Portugal	243	0	0,0	0,0	44	0	0,0	0,0
Suomi/Finland	683	0	0,0	0,0	171	0	0,0	0,0
Sverige	2.849	0	0,0	0,0	70	0	0,0	0,0
United Kingdom	5.126	13	25,4	57,2	54	0	0,0	0,0
Total EU 15	107.449	120	11,2	31,1	21310	6	2,9	8,7
Česká Republika	2.528	0	0,0		231	0	0,0	
Slovenská Rep.	214	1	46,7		4	0	0,0	
Norway	3.367	8	23,8	16,5	221	0	0,0	0,0

*: positives per 10.000 animals tested

Chart 42: Prevalence of positives in risk ovine animals in different Member States

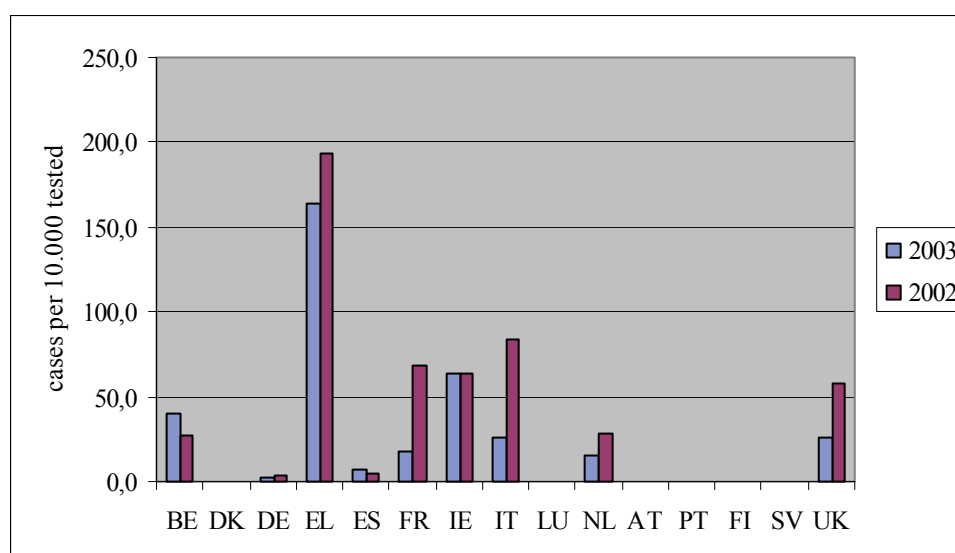


Chart 43: Prevalence of scrapie in healthy slaughtered and risk animals in the EU15, goats versus sheep

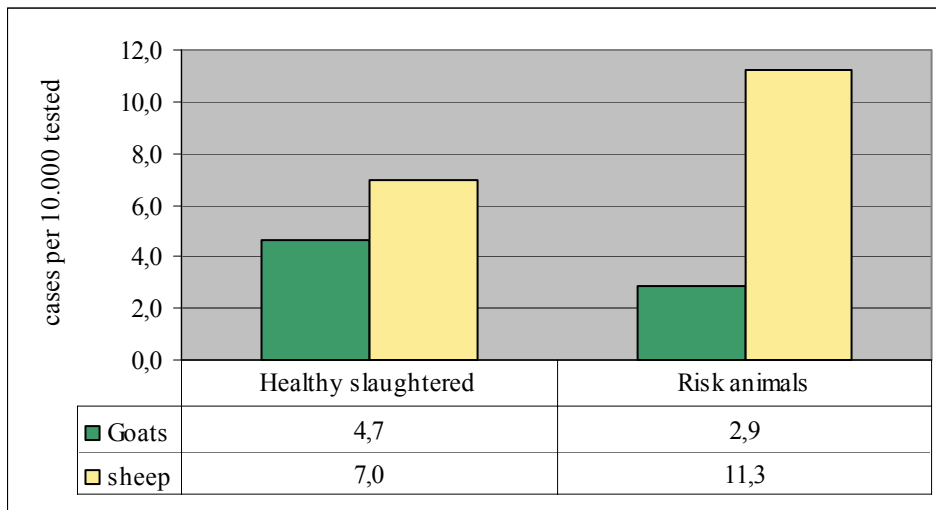


Chart 44: Prevalence of scrapie in healthy slaughtered and risk sheep in the EU 15, 2002 versus 2003

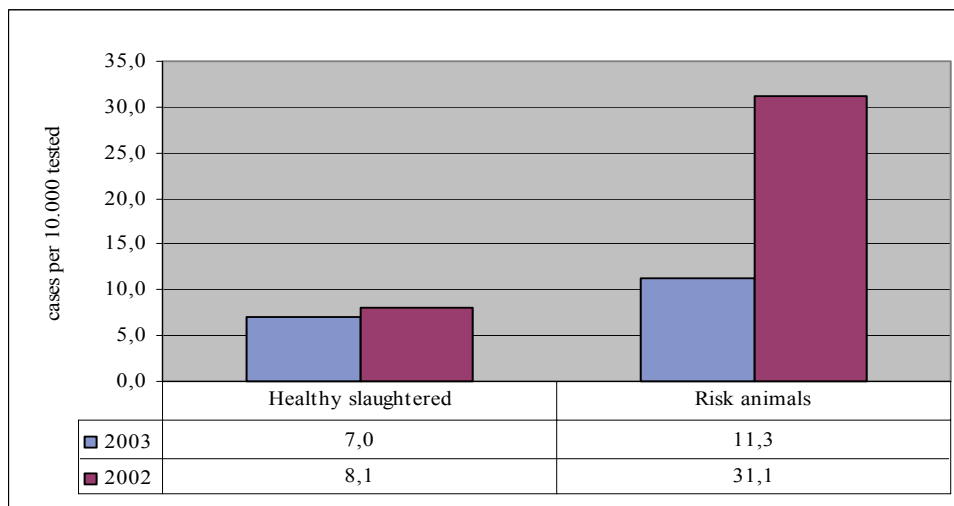


Chart 45: Prevalence of scrapie in healthy slaughtered and risk goats in the EU 15, 2002 versus 2003

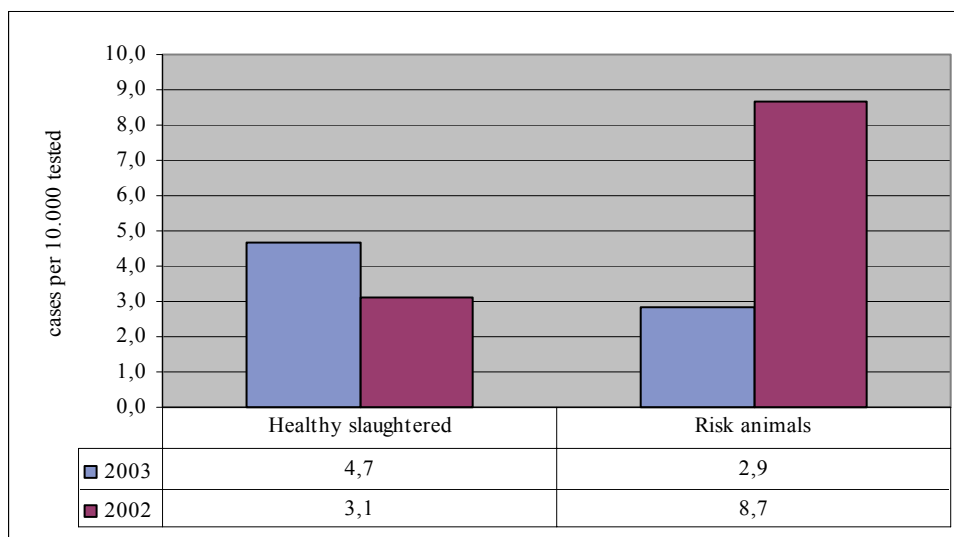


Table 42: Positives in suspect ovine and caprine animals

	Sheep				Goats			
	Total tests	Total positives	Ratio*	Ratio* 2002	Total tests	Total positives	Ratio*	Ratio* 2002
Belgique/België	6	0	0	2.222	4	0	0	0
Danmark	5	0	0	0	3	0	0	0
Deutschland	353	0	0	24	20	0	0	0
Ellas	163	55	3.374	3.826	28	10	3.571	3077
España	57	14	2.456	1.013	3	0	0	0
France	69	41	5.942	8.732	1	0	0	
Ireland	44	16	3.636	3.852	0	0		
Italia	19	18	9.474	7.500	2	1	5.000	0
Luxembourg	0	0			0	0		
Nederland	61	12	1.967		0	0		
Österreich	1	0	0	0	0	0		
Portugal	0	0			0	0		
Suomi/Finland	0	0			0	0		
Sverige	25	2	800	0	4	0	0	0
United Kingdom	494	380	7.692	7.860	0	0		
Total EU 15	1.297	538	4.148	2.334	65	11	1.692	635
Česka Republika	0	0			0	0		
Slovenská Rep.	1	1	10.000		0	0		
Norway	15	1	667	769	2	0	0	0

*: positives per 10.000 animals tested

Table 43: Positives in ovine and caprine animals, culled in the frame of TSE eradication

	Sheep				Goats			
	Total tests	Total positives	Ratio* 2003	Ratio* 2002	Total tests	Total positives	Ratio* 2003	Ratio* 2002
Belgique/België	205	0	0,0	467,3	0	0		
Danmark	0	0			0	0		
Deutschland	3.429	1	2,9	0,0	44	0	0,0	
Ellas	236	7	296,6		121	0	0,0	
España	6.601	97	146,9	88,1	18	0		0,0
France	16.239	629	387,3	130,8	4.109	9	21,9	22,4
Ireland	510	6	117,6	108,3	0	0		
Italia	3.641	145	398,2	638,5	256	3	117,2	2500,0
Luxembourg	0	0			0	0		
Nederland	100	0	0,0		0	0		
Österreich	0	0			0	0		
Portugal	31	0	0,0		0	0		
Suomi/Finland	0	0		0,0	22	0	0,0	214,3
Sverige	121	0	0,0		0	0		
United Kingdom	0	0			0	0		
Total EU 15	31.113	885	284,4	127,0	4.570	12	26,3	69,6
Česká Republika	16	11	6.875,0		1	0	0,0	
Slovenská Rep.	1	0	0,0		0	0		
Norway	1.072	1	9,3		0	0		

*: positives per 10.000 animals tested

Comments on positives cases and target groups

Half of the positive cases in sheep were detected in animals culled in the frame of TSE eradication. TSE was detected in about 3% of the animals in an infected herd. It underlines the importance of the measures applicable to such herds.

The difference in prevalence in risk animals compared to healthy slaughtered animals is less pronounced than the prevalence of BSE in cattle in the same target groups.

All 4 TSE cases in Sweden and 14 of the 15 TSE cases in Norway were indicated as infections by the Nor98 strain.

5.4 YEAR OF BIRTH AND AGE DISTRIBUTION OF POSITIVE CASES

Table 44: Year of birth distribution of positive cases in ovine animals of known age detected in 2003

		Year of birth distribution												Total		
		<1995	1995	1996	1997	1998	1999	2000	2001	2002	2003	Unknown				
Belgique/België	No of cases	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2
	% of known	50%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
Deutschland	No of cases	0	1	0	1	2	2	0	1	1	1	0	0	0	16	24
	% of known	0%	13%	0%	13%	25%	25%	0%	13%	13%	13%	0%	0%	0%	67%	100%
Ellas	No of cases	0	0	2	2	13	25	16	31	3	3	0	0	0	0	92
	% of known	0%	0%	2%	2%	14%	27%	17%	34%	3%	3%	0%	0%	0%	0%	100%
España	No of cases	1	1	2	6	6	10	6	1	0	0	0	0	0	5	38
	% of known	3%	3%	5%	16%	16%	26%	16%	3%	0%	0%	0%	0%	0%	13%	100%
France	No of cases	2	6	2	3	7	20	13	64	2	2	1	1	6	6	126
	% of known	2%	5%	2%	3%	6%	17%	11%	53%	2%	2%	1%	1%	5%	5%	100%
Ireland	No of cases	0	0	0	0	0	0	0	0	0	0	0	0	41	41	
	% of known	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	
Italia	No of cases	0	1	3	2	7	10	7	11	2	2	0	0	0	0	43
	% of known	0%	2%	7%	5%	16%	23%	16%	26%	5%	5%	0%	0%	100%	100%	
Nederland	No of cases	0	0	0	0	0	0	0	0	0	0	0	0	63	63	
	% of known	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	100%	
Portugal	No of cases	0	0	0	0	0	0	0	1	0	0	0	0	1	2	
	% of known	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	50%	100%	
Sverige	No of cases	1	0	0	0	0	0	0	0	0	0	0	0	3	4	
	% of known	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	75%	100%	
United Kingdom	No of cases	0	4	8	22	45	77	68	65	21	21	2	2	101	413	
	% of known	0%	1%	3%	7%	14%	25%	22%	21%	7%	7%	1%	1%	23%	100%	
EU 15	No of cases	5	13	17	36	81	144	110	174	29	3	3	3	236	848	
	% of known	1%	2%	3%	6%	13%	24%	18%	28%	5%	0%	0%	0%	27%	100%	
Slovenská Rep.	No of cases	0	0	0	0	0	0	0	1	0	0	0	0	1	2	
	% of known	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	50%	100%	
Norway	No of cases	1	1	4	5	1	1	1	1	0	0	0	0	0	15	
	% of known	7%	7%	27%	33%	7%	7%	7%	7%	0%	0%	0%	0%	0%	100%	

Chart 46: Year of birth distribution of sheep in some Member States detected in 2003

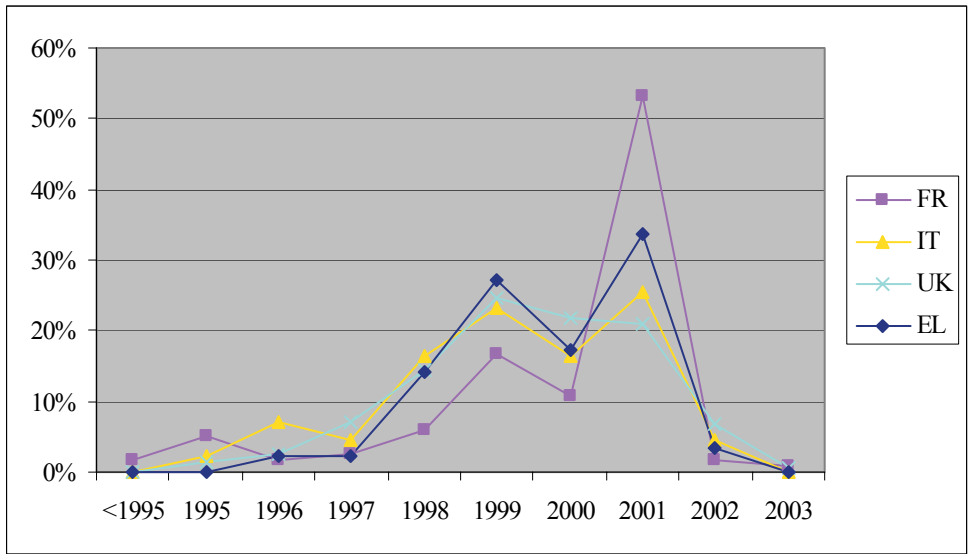


Chart 47: Year of birth distribution of positive cases detected in 2002 or 2003

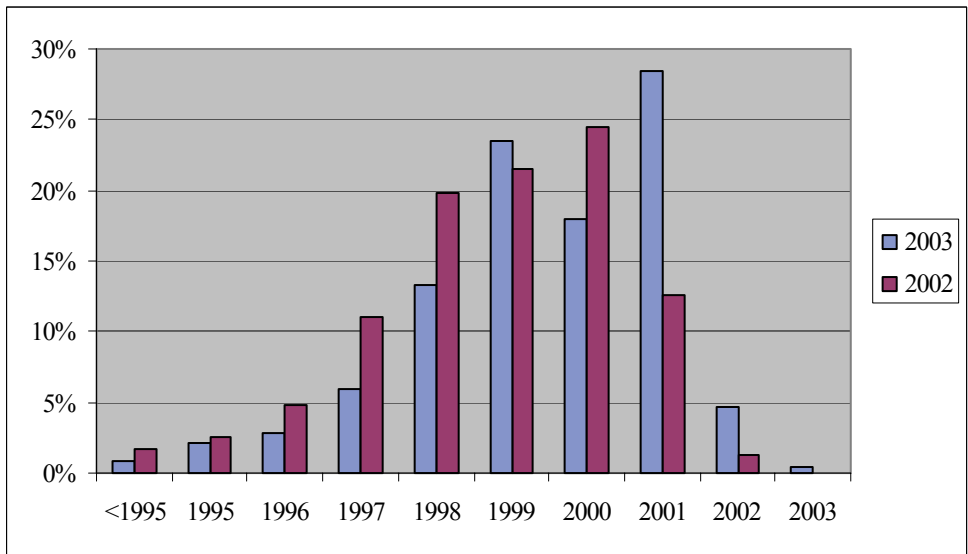
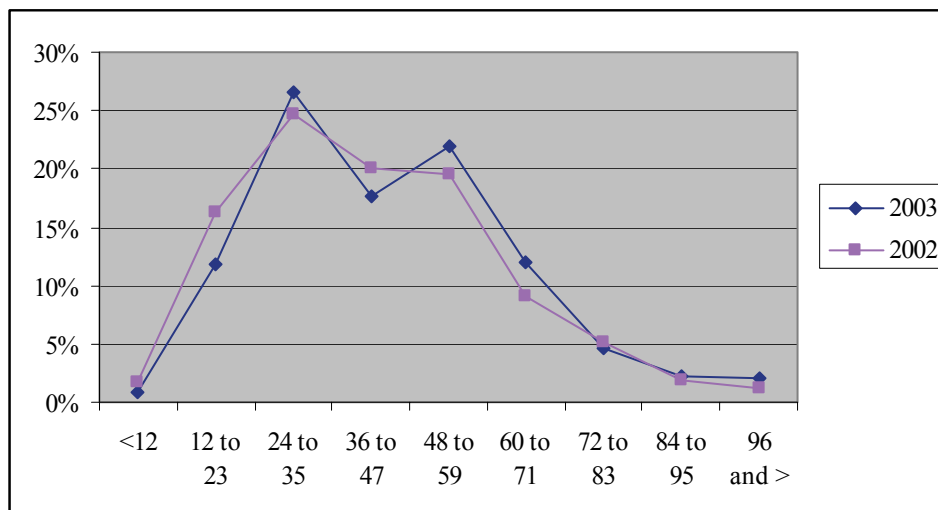


Table 45: Age distribution of positive cases in 2003 in ovine animals

	Age distribution (months of age at confirmation)											96 and >	Unknown	Total		
	<12	12 to 23	24 to 35	36 to 47	48 to 59	60 to 71	72 to 83	84 to 95								
Belgique/België	No of cases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
	% of known	0	0%	0%	0%	0%	50%	0%	0%	0%	0%	0%	0%	50%		
Deutschland	No of cases	0	2	0	1	2	1	1	1	1	1	1	1	0	16	24
	% of known	0%	25%	0%	13%	25%	13%	13%	13%	13%	13%	13%	13%	0%		
Ellas	No of cases	0	5	38	11	22	13	1	1	2	2	2	0	0	0	92
	% of known	0%	5%	41%	12%	24%	14%	1%	1%	2%	2%	0%	0%			
España	No of cases	0	0	1	7	9	6	6	6	2	2	2	2	5	5	38
	% of known	0%	0%	3%	21%	27%	18%	18%	18%	6%	6%	6%	6%			
France	No of cases	1	20	51	14	15	6	4	4	2	2	2	6	6	126	
	% of known	1%	17%	43%	12%	13%	5%	3%	3%	2%	2%	6%				
Ireland	No of cases	0	0	0	0	0	0	0	0	0	0	0	0	41	41	
	% of known	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Italia	No of cases	0	6	10	7	11	4	3	3	1	1	1	0	0	43	
	% of known	0%	14%	23%	16%	26%	9%	7%	7%	2%	2%	2%				
Nederland	No of cases	0	0	0	0	0	0	0	0	0	0	0	0	63	63	
	% of known	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Portugal	No of cases	0	0	1	0	0	0	0	0	0	0	0	1	1	2	
	% of known	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
Sverige	No of cases	0	0	0	0	0	0	0	0	0	0	0	0	3	4	
	% of known	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%			
United Kingdom	No of cases	4	39	59	67	76	42	13	7	7	7	2	101	101	410	
	% of known	1%	13%	19%	22%	25%	14%	4%	2%	2%	1%	1%				
EU 15	No of cases	5	72	160	107	135	73	28	15	14	14	236	845			
	% of known	1%	12%	26%	18%	22%	12%	5%	2%	2%	2%	2%				
Slovenská Rep.	%	0	0	1	0	0	0	0	0	0	0	1	2			
	% of known	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%				
Norway	%	0	1	0	1	1	2	4	5	0	0	1	15			
	% of known	0%	7%	0%	7%	7%	14%	29%	36%	0%	0%					

Chart 48: Age distribution of positive cases in sheep detected in 2002 or 2003



5.5 GENOTYPING

The genotypes found in positive cases and by random sampling were grouped in accordance with the NSP classification system used in the United Kingdom:

NSP1	ARR/ARR	Genetically most resistant to scrapie
NSP2	ARR/ARQ, ARR/ARH, ARR/AHQ, VRR/ARQ	Genetically resistant to scrapie
NSP3 (ARQ/ARQ)	ARQ/ARQ	Genetically little resistance to scrapie (ARQ/ARQ may be scientifically reviewed)
NSP3 (others)	AHQ/AHQ, ARH/ARH, ARH/ARQ, AHQ/ARH, AHQ/ARQ	
NSP4	ARR/VRQ	Genetically susceptible to scrapie
NSP5	ARQ/VRQ, ARH/VRQ, AHQ/VRQ, VRQ/VRQ	Genetically highly susceptible to scrapie

5.5.1 Genotypes of confirmed TSE cases in accordance with point 7.1 of Chapter A.II of Annex III to Regulation (EC) No 999/2001

Table 46: Distribution of genotypes in 2003 in TSE positive ovine animals others than animals culled in the frame of TSE eradication

	Known genotypes		Distribution of known genotypes					
	Number	% of TSE positives	NSP1	NSP2	NSP3		NSP4	NSP5
					ARQ/ARQ	Others		
Belgique/België	2	100%	0%	0%	0%	50%	0%	50%
Deutschland	16	67%	6%	19%	31%	44%	0%	0%
Ellas	56	60%	0%	0%	64%	34%	0%	2%
España	25	81%	0%	8%	84%	8%	0%	0%
France	18	13%	17%	33%	33%	6%	0%	11%
Ireland	23	56%	0%	0%	65%	9%	0%	26%
Italia	42	91%	0%	0%	93%	7%	0%	0%
Nederland	63	100%	0%	0%	19%	0%	16%	65%
Portugal	5	83%	20%	20%	40%	20%	0%	0%
Sverige	4	100%	0%	50%	50%	0%	0%	0%
United Kingdom	341	81%	0%	0%	26%	5%	4%	64%
Total EU15-UK	249	57%	2%	5%	55%	14%	4%	20%
Norway	15	100%	0%	27%	33%	33%	0%	7%
Slovenská Rep.	0	0%						

Chart 49: Distribution of genotypes in positive cases in sheep others than culled ones in 2002 and 2003 in the EU15

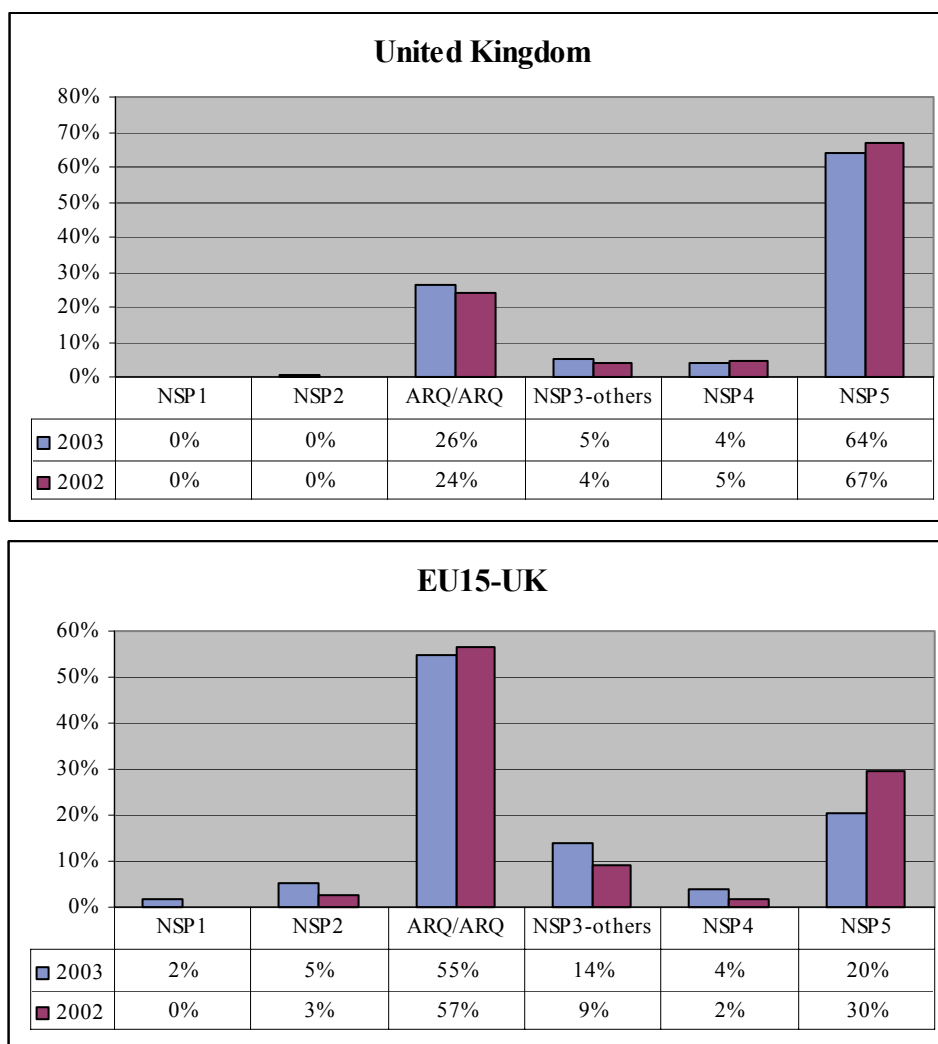


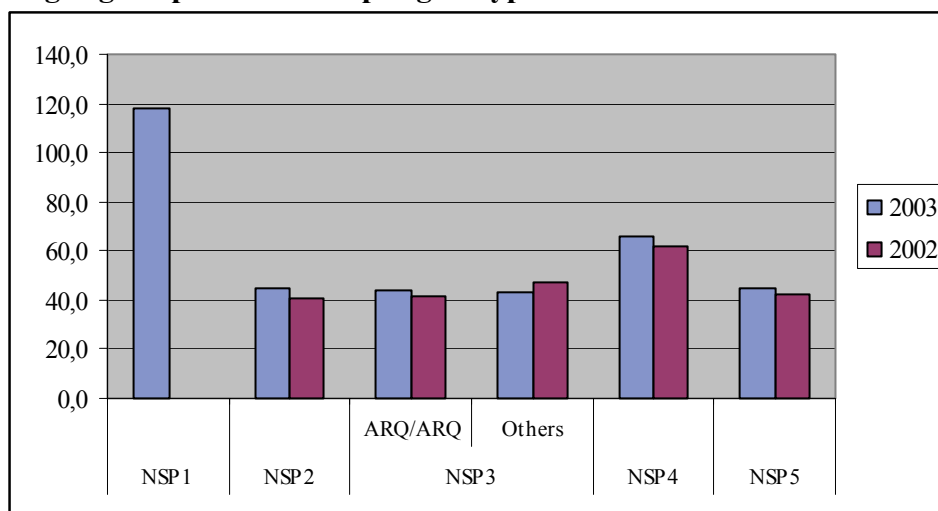
Table 47: Age distribution of positive cases per genotype in the EU15 detected in 2002 and 2003

NSP Genotype		Years of age									Unknown	Total
		< 1	1	2	3	4	5	6	7	>7		
NSP1	cases	0	0	0	0	1	0	0	1	1	1	4
	% of known	0%	0%	0%	0%	33%	0%	0%	33%	33%		
NSP2	cases	0	4	3	2	6	1	1	0	1	4	22
	% of known	0%	22%	17%	11%	33%	6%	6%	0%	6%		
NSP3: ARQ/ARQ	cases	5	48	67	70	66	45	20	3	3	188	515
	% of known	2%	15%	20%	21%	20%	14%	6%	1%	1%		
NSP3: others	cases	1	11	14	6	14	4	5	4	2	43	104
	% of known	2%	18%	23%	10%	23%	7%	8%	7%	3%		
NSP4	cases	0	0	2	4	5	6	4	3	1	24	49
	% of known	0%	0%	8%	16%	20%	24%	16%	12%	4%		
NSP5	cases	1	37	102	112	106	49	15	3	4	187	616
	% of known	0%	9%	24%	26%	25%	11%	4%	1%	1%		
Unknown	cases	9	94	151	58	77	36	22	15	11	127	600
Grand Total	cases	16	194	339	253	275	141	67	29	23	574	1910
	% of known	1%	14%	25%	19%	21%	11%	5%	2%	2%		

Table 48: Average age of positive cases per genotype in the EU15 in 2002 and 2003

Genotype	Mean age (months)		
	2002	2003	Mean
NSP1	No cases	118,3	118,3
NSP2	40,7	44,7	43,2
NSP3	ARQ/ARQ	41,9	42,8
	Others	47,4	44,8
NSP4	61,6	66,2	63,3
NSP5	42,3	45,0	43,4
Unknown	38,0	40,4	39,0
Average	41,2	43,6	42,3

Chart 50: Average age of positive cases per genotype in the EU15 in 2002 and 2003

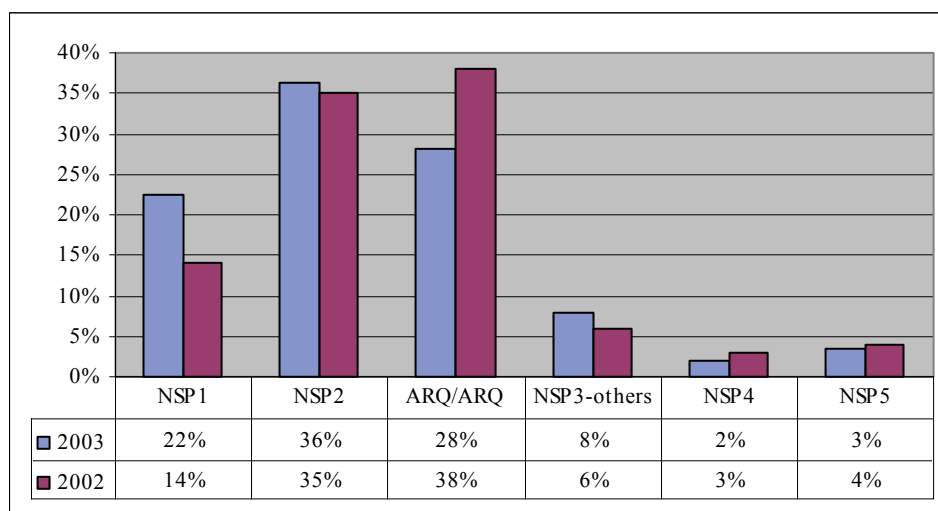


5.5.2 Genotypes in random sampled ovine animals in accordance with point 7.2 of Chapter A.II of Annex III to Regulation (EC) No 999/2001

Table 49: Distribution of genotypes in ovine animals in some Member States in 2003

		Distribution of genotypes in random sampled sheep						Total
		NSP1	NSP2	NSP3		NSP4	NSP5	
				ARQ/ARQ	Others			
België/Belgique	No of samples	19	42	19	13	8	11	112
	%	17%	38%	17%	12%	7%	10%	
Danmark	No of samples	12	10	8	3	0	3	36
	%	33%	28%	22%	8%	0%	8%	
Deutschland	No of samples	742	968	581	244	51	70	2656
	%	28%	36%	22%	9%	2%	3%	
España	No of samples	44	203	304	37	6	30	624
	%	7%	33%	49%	6%	1%	5%	
France	No of samples	62	134	73	9	15	22	315
	%	20%	43%	23%	3%	5%	7%	
Italia	No of samples	114	269	241	51	15	29	719
	%	16%	37%	34%	7%	2%	4%	
Luxembourg	No of samples	39	93	78	40	4	8	262
	%	15%	35%	30%	15%	2%	3%	
Nederland	No of samples	212	257	107	0	12	12	600
	%	35%	43%	18%	0%	2%	2%	
Österreich	No of samples	11	37	43	18	0	3	112
	%	10%	33%	38%	16%	0%	3%	
Suomi/Finland	No of samples	3	13	46	28	0	-1	89
	%	3%	15%	52%	31%	0%	-1%	
Sverige	No of samples	3	11	78	3	0	7	102
	%	3%	11%	76%	3%	0%	7%	
United Kingdom	No of samples	82669	117994	36944	40721	10838	11576	300742
	%	27%	39%	12%	14%	4%	4%	
Total except UK	No of samples	1261	2037	1578	446	111	194	5627
	%	22%	36%	28%	8%	2%	3%	

Chart 51: Distribution of genotypes by random sampling in 2003 compared to 2002 in the EU15 except UK



5.5.3 Susceptibility

Table 50: Relative susceptibility of genotypes to a TSE infection

		NSP1	NSP2	NSP3		NSP4	NSP5
				ARQ/ARQ	others		
Frequency in sandom samples	DE	28%	36%	22%	9%	2%	3%
	ES	7%	33%	49%	6%	1%	5%
	FR	20%	43%	23%	3%	5%	7%
	IT	16%	37%	34%	7%	2%	4%
	NL	35%	43%	18%	0%	2%	2%
	UK	27%	39%	12%	14%	4%	4%
	Mean	22%	39%	26%	7%	3%	4%
Frequency in TSE cases (except culled animals)	DE	6%	19%	31%	44%	0%	0%
	ES	0%	8%	84%	8%	0%	0%
	FR	17%	33%	33%	6%	0%	11%
	IT	0%	0%	93%	7%	0%	0%
	NL	0%	0%	19%	0%	16%	65%
	UK	0%	0%	26%	5%	4%	64%
	Mean	4%	10%	48%	12%	3%	23%
Relative susceptibility (ARQ/ARQ = 1,00)	DE	0,15	0,37	1,00	3,47	0,00	0,00
	ES	0,00	0,14	1,00	0,78	0,00	0,00
	FR	0,59	0,53	1,00	1,39	0,00	1,10
	IT	0,00	0,00	1,00	0,37	0,00	0,00
	NL	0,00	0,00	1,00	0,00	7,58	30,79
	UK	0,00	0,00	1,00	0,16	0,46	7,38
	Mean	0,10	0,14	1,00	0,99	0,69	3,09

5.5.4 Genotyping and TSE testing in culled ovine animals carried out under the provisions of Annex VII, point 2(b)(ii) to Regulation (EC) No 999/2001 in certain Member States.

Table 51: TSE testing per genotype in ovine animals culled in the frame of TSE eradication

		NSP1	NSP2	NSP3		NSP4	NSP5	Total
				ARQ/ARQ	others			
Belgique/België	No. of animals	27	58	57	18	15	17	192
	% TSE positives	0%	0%	0%	0%	0%	0%	
France	No. of animals	66	252	1819	121	626	820	3704
	% TSE positives	0%	9%	4%	2%	2%	18%	
Ireland	No. of animals	0	0	26	2	0	7	35
	% TSE positives	0%	0%	0%	0%	0%	0%	

5.5.5 Distribution of genotypes in pure breeds (Prion protein genotype survey in accordance with Commission Decision 2002/1003/EC). Information was forwarded by the Member States of the EU 15 and the Slovak Republic.

Alphabetic overview table of genotypes in pure breeds: see Appendix.

Table 52: Classifications of breeds according to the frequency of the ARR allele (breeds with 45 or more samples analysed in 2003)

% of ARR allele	Breed
0-9%	North Ronaldsay, Soay, Boreray, Gute, Castlemilk Moorit, Finuld, Finnsheep, Barbaros Blackbelly, Gotland Pels, Bentheimer Landschaf, Churra Tensina, Mondegueira, Manx Loghtan, Rya, Kainuu grey sheep, Schoonebeeker, Milchscharf, Bergamasca, Krainer Steinschaf
10-19%	Campaniça, Ostfriesisches Milchscharf Weiss, Alands sheep, Manchega, Belgische melkschaap, Finull, Fries-Zeeuws melkschaap, Manchega Negra, Galega Bragançana, Merinolandschaf, Thônes et Marthod, Braunes Bergschaf, Galega Mirandesa, Graue Gehörnte Heidschnucke, Romanov, Weisses Bergschaf, Merino, Hill Radnor, Est à Laine Mérinos, Churra, Veluws Heideschaap, Churra da Terra Quente, Aragonesa, Castellana, Ostfriesisches Molchscharf Braun, Biellese, Landschaf
20-29%	Weisse Hornlose Heidschnucke, Hebridean, Carranzana, Navarra, Manech Tête Rouse, Landaise, Braunes Bergschaf, Merino da Beira Baixa, Skudde, Noire du Velay, Kärnter Brillenschaf, Segureña, Churra Badana, Castellana Negra, Montafoner Steinschaf, Churra Algarvia, Lacha, Ojinegra de Teruel, Barbaresca, Saloia, Friesland, Fabrianese, Waterford Blackface, Bordaleira, Ojalada, Mourérous, Skudde, Blanc du Massif Central, Tiroler Steinschaf, Vendeen, Juraschaf, Rauhwolliges Pommersches Landschaf, Coburger Fuchs, Drents Heideschaap, Vlaams Kuddeschaap, Ripollesa, Beltex, Castillonnaise, Gentile di Puglia, Shropshire, Racka, Merinolangwollschaf, Shetland
30-39%	Scottish Blackface, Valle del Belice, Roussin, Herdwick, Weisses Bergschaf, Merina, Waldschaf, Lonk, Alpines Steinschaf, Devon Closewool, White Face Dartmoor, Dalesbred, Caussenarde des Garrigues, Basco-Béarnaise, Delle Langhe, Rouge du Roussillon, Altamura, Comisana, Kempens schaap, Merinizzata, Merino Preto, Greyface Dartmoor, Appenninica, Sopravissana, Solognote, White Face Woodland, Welsh Mountain, Derbyshire Gritstone, Mérinos d'Arles, Merino Blanco, Cheviot, Charmoise, Southdown, Pinzirita, British Milkssheep, Rayole, Weisse Gehörnte Heidschnucke, Merino Precoce, Wicklow Cheviot
40-49%	Tarasconnaise, Serra da Estrela, Merino Precoz, Rough Fell, Swaledale, Préalpes du Sud, Berrichon de l'Indre, Corse, Grivette, Mergelandschaap, Ardennais Roux, Texel, Rava, Zwartbles, Boulonnaise, Badger Face Welsh Mountain, Limousine, Mayo-Connemara Blackface, Merinofleischschaf, Manech Tête Noire, North County Cheviot, Tregaron Welsh Mountain, Moscica Leccese, Fleischschaf, Dorper, Causses du Lot
50-59%	Brecknock Hill Cheviot, Massese, Sarda, Llanwenog, Blauköpfiges Fleischschaf, Noord Hollander, Dorset Down, Belclare, Leineschaf, Beulah Speckled Face, Landes de Bretagne, Inra 401, Lley, Charolais, Welsh Hill Speckled Face, Llandovery Whiteface, Laticauda, Dorset, Ouessant, Mérinos de Rambouillet, Talybont Welsh, Hampshire Down, Bizet, Belle Isle, Cambridge,
60-69%	Cotswold, Lacaune (meat breed), Romney, Dorset Horn and Poll Dorset, Coburger Fuchschaf, Nolana, Bluefaced Leicester, Black Welsh Mountain, Jacob, Vlaams schaap, Blauwe Texelaar, Lacaune (milk breed), South Wales Mountain, Rhönschaf, Wiltshire Horn, Schwarzkopf, Kerry Hill
70-79%	Balwen Welsh Mountain, Rouge de l'Ouest, Flevolander, Galway, Exmoor Horn, Leicester, Weissköpfiges Fleischschaf, Border Leicester, Suffolk, Berrichon du Cher, Devon and Cornwall Longwool, Bleu du Maine, Swifter, Cotentin, Ile de France, Easycare, Schwarzköpfiges Fleischschaf
80-89%	Clun Forest, Oxford Down, Blessumer, Portland, Teeswater, Lincoln Longwool, Norfolk Horn, Marskfar
> 90%	Ryeland, Warborough, Meatline, Wensleydale, Leicester Longwool, Avranchin

The genotypes of 430.233 purebred sheep, mainly (69,9%) sampled in the United Kingdom (69,9%) and the Netherlands (13,9%), were forwarded. Of all alleles, ARR represented 48,9% in the United Kingdom, 56,8% in the Netherlands and 35,7% in the other Member States.

Table 53: Details on genotypes in Leicester sheep

Breed	Member State	Percentage of tested sheep						Total No. Tested
		NSP1	NSP2	NSP3		NSP4	NSP5	
				ARQ/ARQ	Others			
Leicester	Danmark	54%	24%	4%	2%	13%	2%	46
Leicester (Bluefaced)	United Kingdom	38%	46%	5%	11%	0%	0%	18244
Leicester (Bluefaced)	Nederland	57%	43%	0%	0%	0%	0%	7
Leicester (Border)	United Kingdom	55%	23%	3%	0%	15%	4%	2716
Leicester (Longwool)	United Kingdom	83%	4%	0%	0%	12%	1%	443
Leicester (Longwool)	Nederland	89%	0%	11%	0%	0%	0%	9

Table 54: Details on genotypes in Merino sheep

Breed	Member State	Percentage of tested sheep						Total no. tested
		NSP1	NSP2	NSP3		NSP4	NSP5	
				ARQ/ARQ	Others			
Merino	Luxembourg	0%	16%	79%	0%	0%	5%	19
Merino	Österreich	5%	25%	56%	13%	0%	1%	102
Merino	Nederland	0%	33%	67%	0%	0%	0%	6
Merino Branco	Portugal	13%	47%	35%	3%	2%	0%	60
Merino da Beira Baixa	Portugal	8%	25%	51%	2%	2%	12%	59
Merino Precoce	Portugal	19%	41%	36%	5%	0%	0%	59
Merino Preto	Portugal	17%	34%	29%	3%	3%	14%	59
Mérinos d'Arles	France	13%	47%	36%	0%	1%	2%	739
Mérinos de Rambouillet	France	31%	48%	0%	12%	6%	3%	229
Merino Precoz	España	17%	49%	32%	2%	0%	1%	2069
Merinofleischschaf	Deutschland	22%	47%	27%	4%	0%	2%	51
Merinolandschaf	Deutschland	2%	25%	56%	18%	0%	0%	57
Merinolangwollschaf	Deutschland	6%	45%	37%	6%	2%	12%	51

Chart 52: Details on genotypes in Berrichon sheep

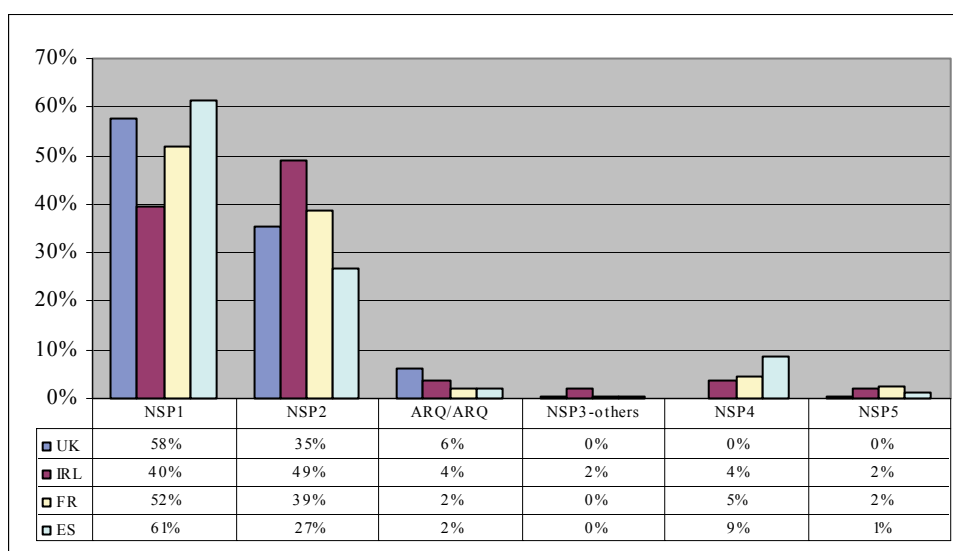


Chart 53: Details on genotypes in Scottish Blackface sheep

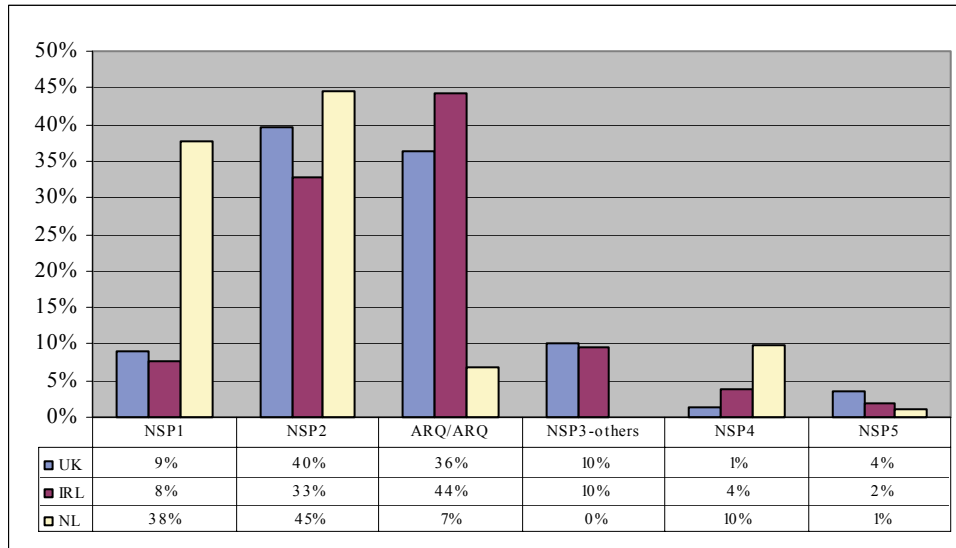


Chart 54: Details on genotypes in Bleu du Maine sheep

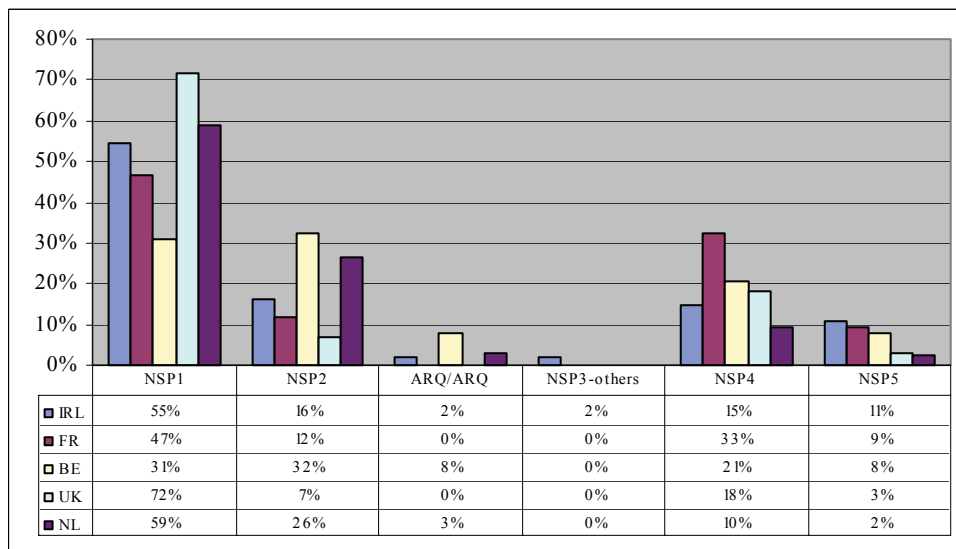


Chart 55: Details on genotypes in Charolais sheep

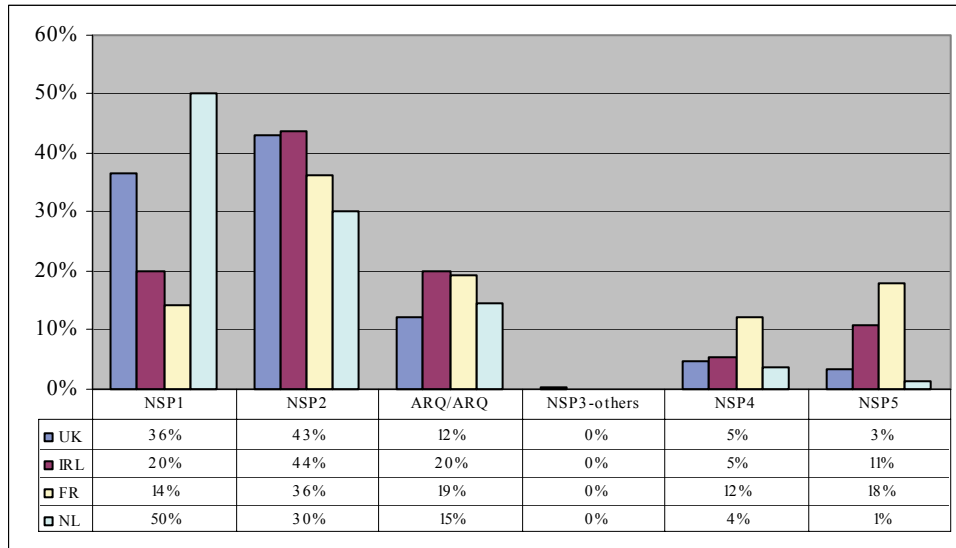


Chart 56: Details on genotypes in Hampshire Down sheep

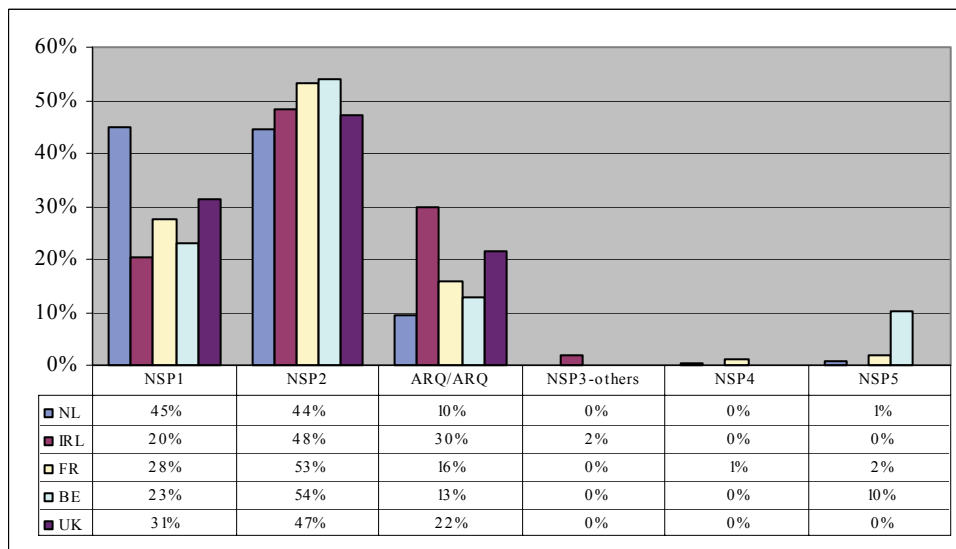


Chart 57: Details on genotypes in Île de France sheep

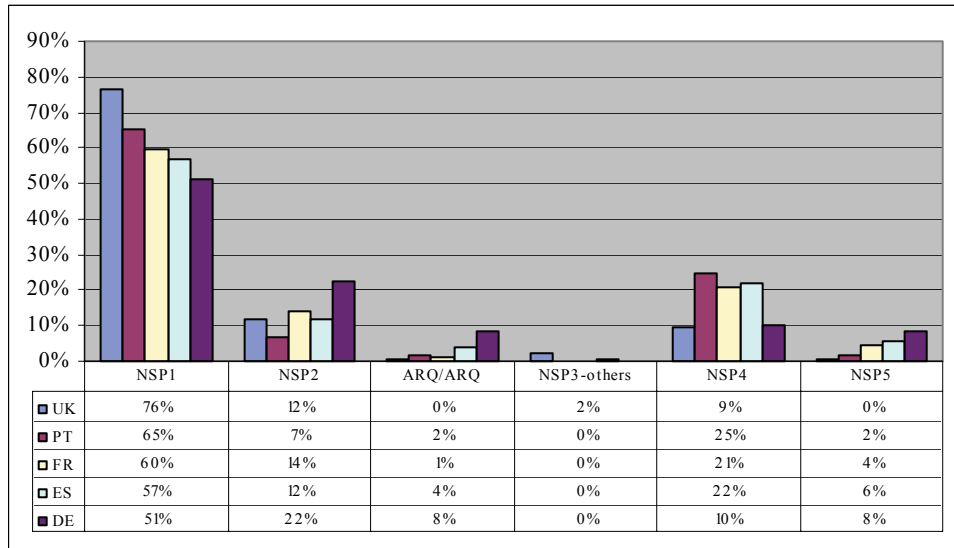


Chart 58: Details on genotypes in Suffolk sheep

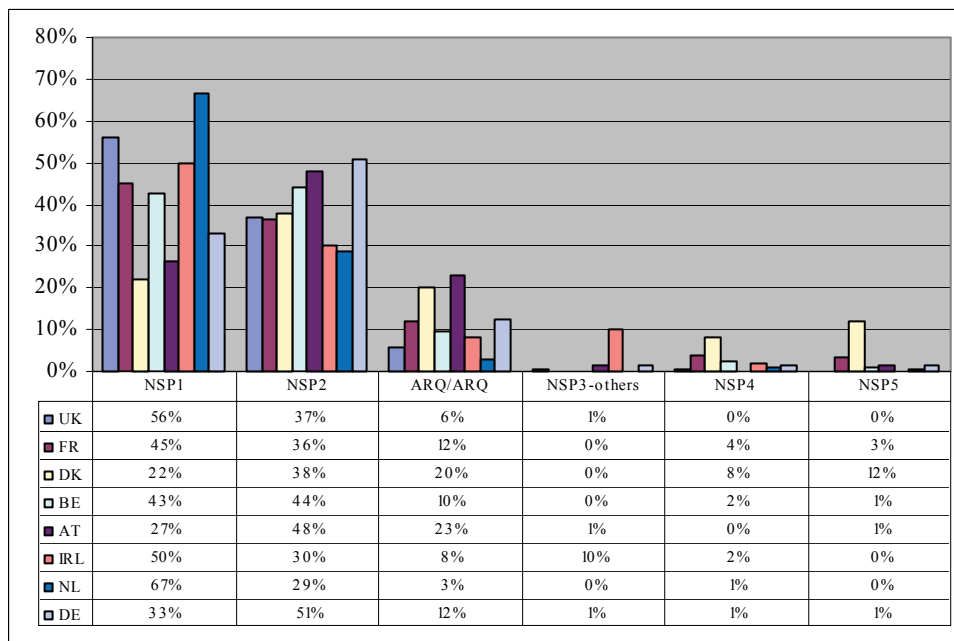
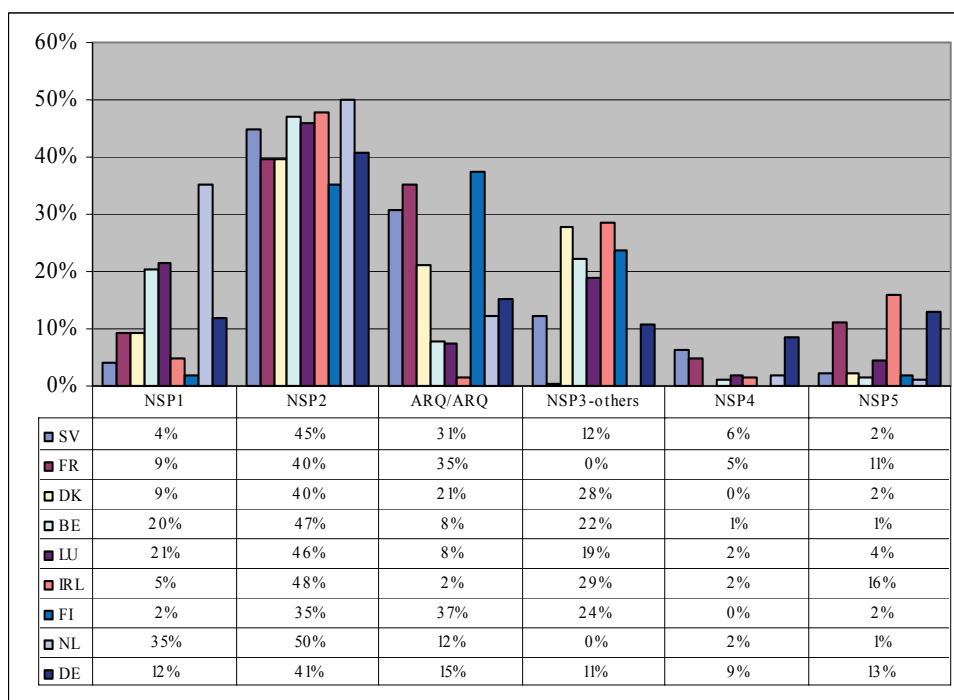


Chart 59: Details on genotypes in Texel sheep



Comments on genotypes

In UK and Netherlands the majority of cases are in the NSP 5 category. In the Mediterranean MS (Greece, Spain, Italy) most cases are in ARQ/ARQ animals. This difference seems not only due to a greater frequency of the ARQ/ARQ genotype in the Mediterranean MS, but to a greater relative susceptibility of ARQ/ARQ genotypes in these MS, possibly due to an effect of sheep breed or scrapie strain. Data on genotypes of positive cases outside the UK is however still limited.

Average age of positive cases is as expected older for NSP1 genotypes, but also for NSP4 genotypes.

Random sampling of genotypes showed a shift towards NSP 1, 2 and 3 genotypes compared to 2002.

In the survey of pure breeds, the level of resistant genotypes is higher in most breeds in the Netherlands compared to the same breeds in other MS.

Appendix

Results of the survey of prion protein genotypes of pure sheep breeds in accordance with Article 2 of Commission Decision 2002/1003/EC.

	Percentage of tested sheep						Total No tested
	NSP1 ARR/ARR	NSP2 ARR/X, X≠VRQ)	NSP3 ARQ/ARQ Others		NSP4 ARR/VRQ	NSP5 VRQ/X, X≠ARR	
Alands sheep	0,0%	22,2%	48,9%	28,9%	0,0%	0,0%	45
Alpines Steinschaf	8,5%	44,1%	8,5%	23,7%	1,7%	13,6%	59
Altamura	7,3%	54,5%	36,4%	1,8%	0,0%	0,0%	55
Appenninica	10,0%	50,0%	24,0%	10,0%	2,0%	4,0%	50
Aragonesa	3,3%	28,6%	55,3%	7,5%	0,9%	4,5%	10686
Ardennais Roux	14,8%	54,8%	29,6%	0,9%	0,0%	0,0%	115
Ardenner	0,0%	40,0%	10,0%	50,0%	0,0%	0,0%	10
Ardense Voskop	100,0%	0,0%	0,0%	0,0%	0,0%	0,0%	2
Aure et Campan	9,1%	36,4%	39,4%	6,1%	3,0%	6,1%	33
Avranchin	87,8%	9,8%	1,2%	0,0%	1,2%	0,0%	246
Badger Face Welsh Mountain	19,1%	43,6%	11,2%	13,8%	4,9%	7,4%	1425
Balwen Welsh Mountain	49,5%	39,3%	3,1%	6,5%	0,8%	0,9%	800
Barbaresca	6,0%	36,0%	34,0%	24,0%	0,0%	0,0%	50
Barbaros Blackbelly	0,0%	7,4%	92,6%	0,0%	0,0%	0,0%	54
Barégeoise	20,0%	20,0%	60,0%	0,0%	0,0%	0,0%	10
Basco-Béarnaise	9,5%	46,6%	43,4%	0,4%	0,1%	0,1%	1131
Belclare	22,0%	56,0%	4,0%	10,0%	6,0%	2,0%	50
Belgische melkschaap	0,0%	23,5%	17,6%	58,8%	0,0%	0,0%	51
Belle Isle	33,8%	49,3%	16,9%	0,0%	0,0%	0,0%	71
Beltex	8,9%	37,7%	20,7%	26,7%	1,5%	4,5%	2260
Bentheimer Landschaf	0,0%	11,0%	32,9%	26,0%	1,4%	28,8%	73
Bergamasca	0,0%	16,0%	70,0%	6,0%	2,0%	6,0%	50
Bergschaf braun	5,7%	30,2%	56,6%	5,7%	1,9%	0,0%	53
Bergschaf weiss	0,0%	32,0%	30,0%	38,0%	0,0%	0,0%	50
Berrichon de l'Indre	17,5%	41,2%	23,7%	0,0%	6,2%	11,3%	97
Berrichon du Cher	55,0%	36,2%	3,7%	0,4%	3,3%	1,4%	2332
Beulah Speckled Face	28,5%	46,5%	15,7%	2,8%	3,3%	3,2%	6109
Biellese	8,0%	22,0%	46,0%	8,0%	0,0%	16,0%	50
Bizet	35,0%	46,0%	19,0%	0,0%	0,0%	0,0%	100
Black Welsh Mountain	39,3%	24,3%	0,8%	2,8%	23,0%	9,7%	2120
Blanc du Massif Central	5,9%	35,6%	43,8%	0,0%	3,4%	11,2%	2761
Blauköpfiges Fleischschaf	28,0%	34,0%	8,0%	0,0%	14,0%	16,0%	50
Blauwe Texelaar	37,1%	48,1%	7,9%	0,0%	5,4%	1,5%	3570
Blessumer	67,7%	24,0%	2,0%	0,0%	6,3%	0,0%	254
Bleu du Maine	57,8%	18,9%	2,7%	0,0%	16,3%	4,2%	2637
Bordaleira	9,7%	29,0%	46,8%	4,8%	1,6%	8,1%	62
Boreray	0,0%	3,8%	45,2%	1,0%	1,0%	49,0%	104
Boulonnaise	10,6%	64,4%	22,1%	0,0%	1,0%	1,9%	104
braunes Bergschaf	6,1%	10,2%	30,6%	14,3%	6,1%	32,7%	49
Brilschaap	0,0%	6,7%	80,0%	0,0%	0,0%	13,3%	15
British Milksheep	11,3%	54,7%	11,3%	22,6%	0,0%	0,0%	53
Cambridge	35,2%	47,7%	17,1%	0,0%	0,0%	0,0%	369
Campaniça	0,0%	21,7%	50,0%	5,0%	0,0%	23,3%	60
Carranzana	3,9%	33,3%	47,1%	13,7%	0,0%	2,0%	51
Castellana	4,2%	28,3%	51,5%	13,9%	0,6%	1,7%	361
Castellana Negra	5,5%	34,5%	56,4%	3,6%	0,0%	0,0%	55
Castillonaise	8,2%	40,8%	49,0%	0,0%	0,0%	2,0%	49
Castlemilk Moorit	0,0%	6,3%	92,9%	0,8%	0,0%	0,0%	616
Causse des Garr.	10,9%	43,6%	32,7%	12,7%	0,0%	0,0%	55

	Percentage of tested sheep						Total No Tested
	NSP1	NSP2	NSP3		NSP4	NSP5	
	ARR/ARR	ARR/X, X≠VRQ)	ARQ/ARQ	Others	ARR/VRQ	VRQ/X, X≠ARR	
Causses du Lot	12,3%	64,6%	1,2%	8,2%	9,0%	4,7%	1129
Charmoise	14,2%	35,5%	19,7%	0,5%	11,8%	18,3%	950
Charolais	32,1%	41,3%	13,7%	0,2%	6,4%	6,3%	15653
Cheviot	13,8%	40,2%	8,5%	19,1%	7,2%	11,1%	6024
Cheviot (Brecknock Hill)	25,5%	42,3%	4,0%	15,8%	6,5%	5,8%	4385
Cheviot (North County)	21,0%	43,4%	13,0%	10,2%	5,7%	6,7%	13985
Churra	3,3%	27,4%	56,8%	11,6%	0,2%	0,8%	636
Churra Algarvia	1,7%	41,4%	44,8%	10,3%	1,7%	0,0%	58
Churra Badana	5,0%	35,0%	53,3%	6,7%	0,0%	0,0%	60
Churra da Terra Quente	1,7%	31,7%	63,3%	1,7%	0,0%	1,7%	60
Churra Tensina	0,0%	13,0%	42,6%	33,9%	0,0%	10,4%	115
Cigaja	6,3%	81,3%	0,0%	6,3%	6,3%	0,0%	16
Clun Forest	65,7%	28,3%	1,8%	2,4%	1,4%	0,4%	1690
Coburger Fuchs	8,5%	36,6%	54,9%	0,0%	0,0%	0,0%	82
Coburger Fuchsschaf	35,3%	49,0%	13,7%	0,0%	2,0%	0,0%	51
Comisana	11,5%	44,2%	17,3%	13,5%	1,9%	11,5%	52
Corse	15,8%	50,8%	26,0%	7,1%	0,1%	0,2%	1598
Cotentin	55,8%	5,6%	0,9%	0,4%	34,2%	3,0%	231
Cotswold	37,9%	43,1%	17,0%	1,2%	0,1%	0,6%	670
Dalesbred	7,9%	47,6%	26,8%	11,0%	1,7%	5,1%	471
Danish Landrace	51,2%	39,0%	9,8%	0,0%	0,0%	0,0%	41
Delle Langhe	10,0%	48,0%	40,0%	0,0%	0,0%	2,0%	50
Derbyshire Gritstone	12,9%	43,9%	4,4%	29,9%	4,9%	4,0%	953
Deutsche Weisskopf	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	1
Devon & Cornwall Longwool	56,7%	37,2%	6,1%	0,0%	0,0%	0,0%	180
Devon Closewool	11,7%	33,7%	5,8%	26,0%	5,9%	16,8%	572
Dorper	24,0%	50,0%	24,0%	0,0%	0,0%	2,0%	50
Dorset	32,9%	46,3%	17,1%	1,2%	2,4%	0,0%	82
Dorset Down	26,8%	50,9%	21,0%	1,1%	0,0%	0,1%	794
Dorset Horn and Poll Dorset	36,0%	36,1%	7,9%	0,6%	12,9%	6,6%	5085
Drents Heideschaap	8,3%	37,0%	47,1%	0,0%	2,4%	5,2%	2206
East frizske	0,0%	33,3%	0,0%	0,0%	33,3%	33,3%	3
Easycare	59,0%	22,0%	1,7%	0,7%	14,9%	1,7%	295
Est à Laine Mérinos	2,9%	28,2%	67,0%	1,0%	0,0%	1,0%	103
Exmoor Horn	51,4%	21,4%	1,3%	2,4%	18,1%	5,5%	847
Fabrianese	6,0%	36,0%	22,0%	24,0%	2,0%	10,0%	50
Finnsheep	0,0%	6,4%	85,7%	0,7%	0,0%	7,1%	140
Finuld	0,0%	6,4%	70,2%	17,0%	0,0%	6,4%	47
Finull	1,9%	17,3%	53,8%	11,5%	3,8%	11,5%	52
Fleischschaf	22,2%	52,1%	21,7%	3,6%	0,3%	0,2%	1079
Flevolander	47,7%	43,8%	8,1%	0,0%	0,4%	0,0%	480
Friesland	9,2%	29,4%	16,4%	29,4%	1,1%	14,5%	262
Fries-Zeeuws melkschaap	1,6%	22,0%	76,3%	0,0%	0,0%	0,0%	2872
Galega Bragançana	0,0%	25,0%	65,0%	5,0%	1,7%	3,3%	60
Galega Mirandesa	1,7%	26,7%	53,3%	11,7%	0,0%	6,7%	60
Galway	47,9%	14,9%	1,5%	1,2%	29,2%	5,4%	336
Gentile di Puglia	10,0%	36,0%	40,0%	10,0%	2,0%	2,0%	50
Gotland Pels	0,2%	9,8%	79,2%	0,2%	0,2%	10,4%	510
Graue Gehörnte Heidschnucke	3,8%	22,8%	53,2%	20,3%	0,0%	0,0%	79
Greyface Dartmoor	14,1%	35,3%	26,4%	2,6%	7,9%	13,7%	2346
Grivette	15,3%	51,6%	29,9%	0,0%	0,6%	2,5%	157
Gute	2,0%	2,0%	96,0%	0,0%	0,0%	0,0%	50

	Percentage of tested sheep						Total No tested
	NSP1	NSP2	NSP3		NSP4	NSP5	
	ARR/ARR	ARR/X, X≠VRQ)	ARQ/ARQ	Others	ARR/VRQ	VRQ/X, X≠ARR	
Hampshire down	34,5%	46,7%	18,1%	0,1%	0,2%	0,4%	3271
Hebridean	4,8%	31,4%	29,8%	33,9%	0,0%	0,0%	2295
Heidschnucke	13,2%	63,2%	18,4%	5,3%	0,0%	0,0%	38
Herdwick	9,7%	34,3%	10,9%	26,3%	6,5%	12,2%	2453
Hill Radnor	1,7%	27,2%	51,3%	13,1%	1,7%	4,9%	526
Ile de France	60,0%	12,9%	2,0%	0,3%	20,3%	4,6%	4634
Inra 401	28,5%	47,8%	12,4%	1,9%	5,2%	4,2%	688
Jacob	39,9%	46,1%	7,0%	6,7%	0,1%	0,1%	2802
Juraschaf	1,9%	46,2%	21,2%	26,9%	1,9%	1,9%	52
Kainuu grey sheep	0,0%	16,7%	83,3%	0,0%	0,0%	0,0%	48
Kameroon	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	26
Karakul	0,0%	23,5%	76,5%	0,0%	0,0%	0,0%	17
Kärntner Brillenschaf	5,9%	28,7%	3,0%	50,5%	4,0%	7,9%	101
Kempens schaap	11,4%	46,3%	40,1%	0,0%	0,6%	1,6%	821
Kerry Hill	48,7%	40,2%	10,2%	0,0%	0,8%	0,1%	1802
Krainer Steinschaf	0,0%	18,0%	20,0%	56,0%	0,0%	6,0%	50
Lacaune (meat breed)	34,2%	46,7%	10,9%	0,1%	4,3%	3,8%	853
Lacaune (milk breed)	40,8%	46,0%	11,4%	0,7%	0,7%	0,5%	1361
Lacha	4,8%	36,8%	49,5%	6,6%	0,2%	2,0%	993
Lacoune	30,0%	50,0%	10,0%	10,0%	0,0%	0,0%	10
Lakens schaap	0,0%	0,0%	0,0%	100%	0,0%	0,0%	1
Landaise	4,6%	26,6%	41,1%	0,6%	7,5%	19,5%	477
Landes de Bretagne	30,1%	47,0%	22,9%	0,0%	0,0%	0,0%	83
Landschaf	3,0%	32,6%	45,7%	18,7%	0,0%	0,0%	230
Laticauda	32,0%	48,0%	16,0%	2,0%	2,0%	0,0%	50
Leicester	54,3%	23,9%	4,3%	2,2%	13,0%	2,2%	46
Leicester (Bluefaced)	38,0%	46,4%	4,5%	10,6%	0,3%	0,2%	18251
Leicester (Border)	54,9%	23,2%	3,2%	0,1%	14,6%	4,1%	2716
Leicester Longwool	83,0%	4,2%	0,2%	0,0%	11,3%	1,3%	452
Leineschaf	32,0%	42,0%	20,0%	6,0%	0,0%	0,0%	50
Limousine	16,8%	53,2%	29,4%	0,0%	0,3%	0,3%	333
Lincoln Longwool	74,3%	11,9%	0,3%	0,0%	12,2%	1,3%	712
Llandoverly Whiteface	31,5%	44,0%	2,7%	11,9%	6,7%	3,2%	1018
Llanwenog	26,7%	48,4%	21,8%	0,3%	1,3%	1,5%	3277
Lleyn	31,6%	46,7%	5,1%	13,0%	2,0%	1,6%	14548
Lonk	9,6%	41,0%	11,3%	32,1%	1,4%	4,7%	666
Lourdaise	3,7%	48,1%	44,4%	0,0%	0,0%	3,7%	27
Manchega	1,5%	19,6%	68,7%	9,1%	0,3%	0,8%	2782
Manchega Negra	1,8%	19,3%	72,8%	2,6%	3,5%	0,0%	114
Manech Tête Noire	19,1%	52,5%	27,4%	0,1%	0,4%	0,5%	760
Manech Tête Rousse	4,5%	33,4%	57,4%	0,4%	0,7%	3,6%	1234
Manx Loghtan	1,3%	13,8%	5,8%	79,2%	0,0%	0,0%	1024
Marskfar	82,2%	2,2%	4,4%	2,2%	8,9%	0,0%	45
Massese	20,0%	58,0%	0,0%	0,0%	2,0%	20,0%	50
Mayo-C. Blackface	25,9%	31,5%	13,0%	13,0%	5,6%	11,1%	54
Meatline	81,6%	11,5%	0,2%	0,0%	6,4%	0,3%	999
Mergelandschaap	14,3%	51,5%	27,2%	0,0%	3,9%	3,2%	596
Merina	8,6%	43,3%	42,3%	5,2%	0,1%	0,4%	3356
Merina Negra	14,3%	71,4%	7,1%	7,1%	0,0%	0,0%	14
Merinizzata	10,0%	34,0%	26,0%	2,0%	16,0%	12,0%	50
Merino	3,9%	24,4%	59,8%	10,2%	0,0%	1,6%	127
Merino Branco	13,3%	46,7%	35,0%	3,3%	1,7%	0,0%	60

	Percentage of tested sheep						Total No tested
	NSP1	NSP2	NSP3		NSP4	NSP5	
	ARR/ARR	ARR/X, X≠VRQ)	ARQ/ARQ	Others	ARR/VRQ	VRQ/X, X≠ARR	
Merino da Beira Baixa	8,5%	25,4%	50,8%	1,7%	1,7%	11,9%	59
Merino Precoce	18,6%	40,7%	35,6%	5,1%	0,0%	0,0%	59
Merino Precoz	16,5%	48,9%	32,2%	2,3%	0,0%	0,0%	2069
Merino Preto	16,9%	33,9%	28,8%	3,4%	3,4%	13,6%	59
Merinofleischschaf	21,6%	47,1%	27,5%	3,9%	0,0%	0,0%	51
Merinolandschaf	1,8%	24,6%	56,1%	17,5%	0,0%	0,0%	57
Merinolangwollschaf	5,9%	45,1%	37,3%	5,9%	2,0%	3,9%	51
Mérinos d'Arles	13,4%	47,2%	36,4%	0,1%	0,9%	1,9%	739
Mérinos de Rambouillet	30,6%	48,5%	0,0%	11,8%	6,1%	3,1%	229
Milchschaf	2,8%	12,1%	47,7%	37,4%	0,0%	0,0%	107
Mondegueira	1,5%	10,6%	83,3%	4,5%	0,0%	0,0%	66
Montafoner Steinschaf	6,0%	32,0%	34,0%	2,0%	2,0%	24,0%	50
Moscia Leccese	24,0%	48,0%	22,0%	4,0%	0,0%	2,0%	50
Mourérous	3,7%	43,0%	51,4%	0,0%	0,0%	1,9%	107
Navarra	5,2%	31,5%	53,3%	5,2%	0,9%	3,8%	2801
Noire du Velay	4,6%	34,3%	53,2%	0,0%	0,9%	6,9%	216
Nolana	36,0%	20,0%	4,0%	4,0%	30,0%	6,0%	50
Noord Hollander	26,6%	43,8%	20,1%	0,0%	7,3%	2,3%	384
Norfolk Horn	75,7%	22,0%	1,9%	0,3%	0,0%	0,0%	1145
North Ronaldsay	0,0%	1,5%	97,5%	0,4%	0,0%	0,6%	479
Ojalada	8,3%	33,9%	48,8%	8,3%	0,0%	0,8%	121
Ojinegra de Teruel	5,9%	34,8%	53,1%	1,0%	1,0%	4,3%	512
Ostfriesisches Milchschaf braun	1,7%	33,9%	13,6%	50,8%	0,0%	0,0%	59
Ostfriesisches Milchschaf weiss	1,2%	19,3%	30,1%	48,2%	0,0%	1,2%	83
Ouessant	33,5%	43,4%	18,2%	0,0%	4,9%	0,0%	1308
Oxford Down	64,6%	32,2%	3,2%	0,0%	0,0%	0,0%	621
Pinzirita	7,5%	58,5%	17,0%	13,2%	3,8%	0,0%	53
Portland	71,1%	25,8%	0,0%	3,0%	0,0%	0,0%	1050
Préalpes du Sud	15,8%	49,5%	32,1%	0,0%	1,1%	1,5%	816
Racka	8,6%	40,0%	50,0%	0,0%	1,4%	0,0%	70
Rauhwoelliges Pommersches Landschaf	5,7%	41,5%	30,2%	20,8%	0,0%	1,9%	53
Rava	17,8%	49,0%	30,1%	0,0%	0,8%	2,3%	259
Rayole	15,3%	47,5%	37,3%	0,0%	0,0%	0,0%	59
Rhönshaf	46,6%	37,9%	6,9%	6,9%	1,7%	0,0%	58
Rijnlam	59,4%	37,5%	0,0%	0,0%	3,1%	0,0%	32
Ripollesa	7,2%	42,3%	39,2%	11,3%	0,0%	0,0%	97
Romanov	3,0%	22,1%	49,9%	3,3%	3,7%	17,9%	429
Romney	37,9%	40,4%	10,5%	4,6%	4,1%	2,4%	1261
Rouge de l'Ouest	48,6%	30,2%	5,4%	0,0%	11,7%	4,2%	1725
Rouge du Roussillon	12,1%	43,7%	35,0%	7,3%	0,5%	1,5%	206
Rough Fell	15,8%	47,8%	29,9%	2,3%	2,6%	1,7%	1449
Roussin	13,5%	27,1%	23,8%	0,4%	6,2%	29,0%	483
Rya	0,0%	14,3%	40,8%	20,4%	2,0%	22,4%	49
Ryeland	80,9%	16,4%	1,3%	0,1%	1,2%	0,2%	1881
Saefting	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	5
Saloia	9,7%	27,4%	46,8%	12,9%	1,6%	1,6%	62
Sarda	30,0%	42,0%	28,0%	0,0%	0,0%	0,0%	50
Schoonebeeker	0,9%	14,7%	74,0%	0,0%	0,5%	10,0%	1556
Schwarzkopf	47,8%	41,6%	8,4%	0,0%	1,1%	1,1%	178
Schwarzköpfiges Fleischschaf	60,0%	36,0%	4,0%	0,0%	0,0%	0,0%	50
Scottish Blackface	9,1%	39,6%	36,2%	9,9%	1,5%	3,6%	28984

	Percentage of tested sheep						Total No tested
	NSP1	NSP2	NSP3		NSP4	NSP5	
	ARR/ARR	ARR/X, X≠VRQ)	ARQ/ARQ	Others	ARR/VRQ	VRQ/X, X≠ARR	
Segureña	6,9%	30,9%	53,9%	6,2%	0,4%	1,8%	1474
Serra da Estrela	17,2%	45,3%	29,7%	6,3%	0,0%	1,6%	64
Shetland	8,8%	37,5%	33,1%	8,5%	3,8%	8,3%	7686
Shropshire	9,6%	39,1%	42,6%	8,6%	0,0%	0,0%	2003
Skudde	7,2%	34,8%	54,4%	2,0%	1,6%	0,0%	250
Soay	0,0%	4,4%	63,6%	20,9%	0,1%	11,0%	844
Solognote	14,9%	43,1%	41,4%	0,0%	0,6%	0,0%	174
Somalische Vetstaart	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	1
Sopravissana	10,0%	52,0%	30,0%	6,0%	0,0%	2,0%	50
South Wales Mountain	42,9%	36,5%	5,3%	3,0%	8,7%	3,6%	2235
Southdown	14,0%	48,2%	36,6%	1,1%	0,0%	0,1%	2897
Suffolk	56,1%	36,7%	5,9%	0,6%	0,5%	0,2%	39043
Sussex Merino	0,0%	100,0%	0,0%	0,0%	0,0%	0,0%	1
Swaledale	16,5%	44,2%	13,6%	14,6%	4,9%	6,0%	6283
Swifter	57,0%	33,2%	4,4%	0,1%	4,2%	1,1%	9585
Talybont Welsh	33,0%	41,9%	2,5%	10,6%	8,0%	4,0%	2828
Tarasconnaise	15,8%	47,9%	33,5%	0,0%	0,0%	2,8%	284
Teeswater	71,0%	2,4%	0,0%	0,0%	24,6%	2,0%	744
Texel	19,0%	44,2%	6,5%	24,6%	2,1%	3,5%	81733
Thônes et Marthod	0,0%	28,3%	69,8%	1,9%	0,0%	0,0%	53
Tiroler Steinschaf	9,8%	31,4%	45,1%	3,9%	0,0%	9,8%	51
Tregaron Welsh Mountain	22,8%	42,0%	4,4%	15,5%	8,3%	7,0%	1660
Valle del Belice	3,4%	49,4%	38,2%	0,0%	3,4%	5,6%	89
Veluws Heideschaap	3,4%	26,1%	60,6%	0,0%	1,9%	8,1%	1506
Vendeen	7,5%	35,9%	53,8%	0,0%	0,6%	2,3%	2063
Vlaams Kuddeschaap	6,5%	43,5%	41,9%	8,1%	0,0%	0,0%	62
Vlaams schaap	44,0%	29,1%	6,9%	4,0%	10,3%	5,7%	175
Waldschaf	11,9%	35,7%	40,5%	8,3%	1,2%	2,4%	84
Wallische Schwarznase	0,0%	0,0%	100,0%	0,0%	0,0%	0,0%	4
Warborough	80,9%	17,7%	0,0%	0,0%	1,4%	0,0%	220
Waterford Blackface	5,8%	32,7%	34,6%	15,4%	5,8%	5,8%	52
Weisse Gehörnte Heidschnucke	18,0%	42,0%	40,0%	0,0%	0,0%	0,0%	50
Weisse Hornlose Heidschnucke	0,0%	41,1%	53,6%	5,4%	0,0%	0,0%	56
weisses Bergschaf	8,3%	41,7%	37,5%	4,2%	2,1%	6,3%	48
Weissköpfiges Fleischschaf	57,4%	31,5%	11,1%	0,0%	0,0%	0,0%	54
Welsh Hill Speckled Face	31,2%	43,7%	12,4%	2,0%	6,4%	4,3%	3021
Welsh Mountain	15,1%	39,2%	12,2%	21,3%	4,8%	7,5%	16022
Wensleydale	81,6%	0,1%	0,0%	0,0%	18,0%	0,4%	1090
White Face Dartmoor	3,1%	19,3%	37,9%	0,9%	38,5%	0,3%	327
White Face Woodland	14,3%	39,8%	10,3%	18,2%	5,4%	12,0%	691
Wicklow Cheviot	7,8%	56,9%	11,8%	9,8%	5,9%	7,8%	51
Wiltshire Horn	47,2%	18,0%	1,3%	1,6%	23,6%	8,4%	3411
Zwartbles	20,6%	43,7%	30,1%	2,1%	1,0%	2,4%	4404
Total	26,7%	38,9%	17,0%	10,3%	3,5%	3,7%	430233

