

Appendix Table SA1. Surveillance systems on Salmonella in feedingstuffs, 2008

Country	Surveillance compulsory	Domestic raw feed material		Imported raw feed material (EU and Non-EU countries)		Process control	Compound feed			Comments
		Animal	Vegetable	Animal	Vegetable		Cattle	Pig	Poultry	
Austria	Yes	Each farm, processing plant and retailer are sampled at least twice per year		Each farm, processing plant and retailer are sampled at least twice per year		x	Each farm, processing plant and retailer are sampled at least twice per year			Official sampling is carried out according to Directive 1976/371/EC. Analysis method: ISO 6579:2002
Belgium	Yes	Official monitoring		-	-	-	x	x	x	Official sampling is carried out according to Directive 1976/371/EC. Analysis method: ISO 6579:2002
Bulgaria		Official monitoring		The samples are taken from farm, processing plant and retail on the random selection	-	yes	yes	yes		
Cyprus	-	-	-	-	-	-	-	-	-	
Czech Republic	-	-	-	-	-	-	-	-	-	
Denmark	Yes	Targeted sampling	Targeted sampling	Targeted sampling	Targeted sampling	Targeted sampling	-	-	-	
Estonia	Yes	Monitoring	Monitoring	-	-	-	Monitoring	Monitoring	Monitoring	Official sampling is carried out according to Directive 1976/371/EC. Analysis method in Evira: ISO 6579:2002 with some minor modifications.
Finland	Yes	Self control systems based on requirements of legislation		Every consignment is sampled or random sampling depending on feed type	Every consignment is sampled	x	Self control systems based on requirements of legislation. Final products: risk-based official sampling			
-	-	-	-	Sampling frequency depends on raw feed material and it is based on risk assessment		-	-	-	-	
France	-	Official monitoring, random sampling		Official monitoring, random sampling	-	-	Official monitoring, random sampling			
Germany	Yes	-	-	Samples are taken by official labs. At least 25 samples per batch	-	-	-	-	-	
Greece	-	Targeted and routine sampling	Targeted and routine sampling	-	-	-	-	-	ISO 6571, ISO 6581	
Hungary	-	-	-	-	-	-	-	-	-	
Ireland	Yes	Compulsory sampling regime drawn up in accordance with Directive 1995/53/EC - both imported and domestic		-	-	-	x	x	x	
Italy	Yes	-	Official control as well as HACCP or own check by the industry	-	-	-	Official control as well as HACCP or own check by the industry			
Latvia	Yes	Official and HACCP or own check by the industry		Targeted sampling and HACCP or own check by the industry	Targeted sampling and HACCP or own check by the industry	HACCP by the industry	Official and HACCP by the industry			Official sampling is carried out according to Directive 76/371/EEC. Analysis method: ISO 6579:2002
Lithuania	Yes	Official and self control	Official and self control	Official and self control	Official and self control	Official and self control	Official and self control	Official and self control	Official and self control	Analysis method: LST EN ISO 6579:2003 lt
Luxembourg	-	-	-	-	-	-	-	-	-	
Malta	-	-	-	-	-	-	-	-	-	
Netherlands	Yes	Own control		-	-	-	Routine testing	-	-	
Poland	-	-	-	-	-	-	-	-	-	
Portugal	-	-	-	-	-	-	-	-	-	
Slovakia	-	-	-	-	-	-	-	-	-	
Slovenia	Yes	Official target sampling and own check programme based on HACCP by the industry		Official target sampling and own check programme based on HACCP by the industry		Official target sampling and own check programme based on HACCP by the industry	Official target sampling and own check programme based on HACCP by the industry			
Spain	Yes	Monitoring	Monitoring	-	-	-	Monitoring	Monitoring	Monitoring	
Sweden	Yes	Targeted sampling/self control		Targeted sampling	-	HACCP sampling prescribed by law <sup>1</sup> and official targeted control	-	-	-	
United Kingdom (Great Britain)	-	Sampling of rendered material is required if the rendered material is intended for use in livestock feedingstuffs; reportable		Tested according to a risk assessment	-	Codes of practice for control is applied as part of the HACCP process	x	x	x	
United Kingdom (Northern Ireland)	-	-	-	x	-	-	x	x	x	
Norway	Yes	Own check programme based on requirements of legislation. Random sampling by the official surveillance programme		x	x	Own check programme based on HACCP by the industry	All complete feedingstuffs must be subject to heat treatment <sup>2</sup>			Official sampling according to Directive 1976/371/EC
Switzerland	-	-	-	-	-	-	-	-	-	

x - routinely performed

1. In Sweden, feed mills producing feedingstuffs for poultry a minimum of five samples per week, feed mills producing feedingstuffs for ruminants, pigs or horses two samples a week.

2. In Norway, establishments producing feed are required to establish own check programme based on HACCP. In addition, random samples are collected through an official surveillance programme.

**Appendix Table SA2. *Salmonella* surveillance programmes in poultry breeders (*Gallus gallus*), 2008**

<b>Countries, running an approved monitoring and control programme<sup>1,2</sup> according to Directive 1992/117/EC; meeting at least the minimum sampling requirements set out by Regulation (EC) No 2160/2003</b>			
MSs with approved surveillance programme (Decision 2006/759/EC)		All MSs <sup>3</sup> except MT	
Non-MS with approved surveillance programmes (ESA Decision No 364/07/COL)		NO	
MSs with EU co-financing (Decision 2007/782/EC as amended by Decision 2008/920/EC)		19 MSs except EE, FI, LT, LU <sup>4</sup> , MT, SI, SE, UK	
Countries with additional sampling (see Appendix Table SA3)		AT, DK, FR, NL, SE, UK	
<b>Mimimum requirement according to Regulation (EC) No 2160/2003</b>			
<b>Rearing period</b>		<b>Production period</b>	
Day old chicks	Dead chickens / destroyed chickens Samples from the inside of the delivery boxes (internal lining/paper/crate material)	Every 2 weeks	dead chickens or meconium samples/5 pairs of sock samples
4 <sup>th</sup> week	faecal samples	Every 8 weeks	Official sampling instead of above mentioned sampling
2 weeks before moving	faecal samples		
<b>Diagnostic methods used</b>			
ISO 6579:2002	BE, BG, CZ, EE, GR, IT, NO, PL, SK, ES, NL, SE		
Modified ISO 6579:2002	AT, DK, LV, UK		
Annex D of ISO 6579:2002	LV		
ISO 6579:2002 / Amendment 1:2007	FI		
ISO 6579:2002, Annex D:2007	SI		
AFNOR NF U 47 100 and 47 101	FR		

1. Regulation (EC) 1003/2005 sets the community targets for the reduction of the prevalence of certain *Salmonella* types in breeding flocks of *Gallus gallus*. Setting the testing scheme to verify the achievement of the community targets for *S. Enteritidis*, *S. Hader*, *S. Infantis*, *S. Typhimurium* and *S. Virchow*.

2. Non-MS (EFTA members) must apply the EU legislation according to Decision of the EEA Joint Committee No 101/2006

3. Decision 2007/874/EC approves Romanias surveillance programme and Decision 2007/873/EC approves Bulgarias surveillance programme

4. Luxembourg does not have any breeding flocks

Appendix Table SA3. <i>Salmonella</i> monitoring programmes in poultry breeders ( <i>Gallus gallus</i> ), 2008 – additional sampling				
	Rearing period		Production period	
Austria	At week 12	Faecal samples	Every 4 weeks	Faecal samples
Denmark	Week 1,2 and 8	Faecal samples	Every week Hatcheries: after each hatch when sampling according to Directive 1992/117/EC is not carried out 0-4 weeks before moving, 8-0 weeks before slaughter	Faecal samples Wet dust samples  Faecal samples
Finland <sup>2</sup>			Every 2 weeks  Every 16 weeks at hatchery and twice at holding or three times at holding	Hatcher basket liners or egg shells at hatchery or faecal or sock samples at farm  Official sampling instead of above mentioned sampling
France	4 weeks	Faecal samples and chiffs	Every two weeks at hatchery Every 8 weeks at farm (meat); at 24, 36, 54, 62 weeks (eggs)	5 Hatch tray layers or 250g of shells Faecal samples and chiffs
Netherlands	max. 21 d before transfer	cloacal swabs	From 20 weeks every 4 weeks Hatchery	Cloacal swabs, 6x25/flock Fluff samples (25g) / hatching entity
Netherlands	4 weeks max.21 d before transfer	cloacal swabs cloacal swabs	From 20 – 24 weeks and every 9 weeks No vaccination Vaccination: From week 26 and on	blood samples <sup>1</sup>  fluff samples, every hatch, every machine
United Kingdom			Additional operator sampling at hatchery - every hatch	Fluff, dust, meconium, chicks etc

1. Sample size depends on flock size

2. In Finland, this is not additional sampling, but sampling instead of the requirements set out in the Regulation

**Appendix Table SA4. Control measures<sup>1</sup> taken in poultry breeder flocks in case of *Salmonella* infection, 2008**

Control measures	Countries
<b>Serovars covered</b>	
All Serovars	AT, DK, FI, SE, NO, NL, LT
<i>S. Enteritidis</i> and <i>S. Typhimurium</i>	BG, FR, DE, IE, UK, ES, IT
<i>S. Enteritidis</i> , <i>S. Typhimurium</i> , <i>S. Hadar</i> , <i>S. Virchow</i> , <i>S. Infantis</i>	EE, SI, SK
<b>Restrictions on the flock</b>	
After confirmation of <i>Salmonella</i> infection	ES, LV, NL, PL, IT, SK
Immediately following suspicion of <i>Salmonella</i>	AT, BG, DK, EE, FR, SE, NO, IE, SI, UK
Chicks already delivered covered by restrictions	NO
<b>Consequence for the flock</b>	
Slaughter	BE, EE, ES, GR, FR, IE, PL, SK, UK <sup>2</sup> , IT
Restrictions for the delivery of hatching eggs	AT <sup>3</sup> , BE <sup>4</sup> , BG, EE, ES, FI, LV, NO, NL, DK <sup>3</sup> , PL <sup>4</sup> , SI, SK, FR, IT, FI, UK <sup>4</sup>
Slaughter and heat treatment	AT, DK, DE, FI, LV, NL <sup>5</sup> , NO, LT
Destruction	SE, SI <sup>6</sup>
<b>Other consequences</b>	
Feedingstuffs are restricted (heat treatment or destruction)	DK, EE, FR, NO, SE, SI <sup>7</sup>
Disposal of manure restricted	EE, FR, FI, NO, LV, SE, UK, DK, PL, SI, SK
<b>Cleaning and disinfection</b>	
Obligatory	AT, BE, BG, DK, EE, FR, FI, SE, IE, NO, NL, PL, SI, SK, UK, IT, LT, LV
Negative bacteriological result required before restocking	AT, BG, DK, EE, ES, FR, FI, IE, NO, NL, SI, SE, UK, IT, LT, LV
Requirement of an empty period	AT (14 days), EE (3 weeks), FR (less than 30 days), NO (30 days after disinfection), IT (30 days after disinfection)
<b>Further investigations</b>	
Epidemiological investigation is always started	EE, ES, FI, FR, NO, SE, IE, NL, UK, IT, SI, SK, LV
Feed suppliers are always included in the investigation	FI, NO, SE, IE, NL, UK, SI, SK, LV
Contact herds are included in the investigation	FI, FR, IE, NO, NL, SE, UK, LV
<b>Vaccination</b>	
Mandatory	AT
Recommended	BE
Permitted	BG, CY, DK <sup>8</sup> , EE <sup>9</sup> , ES, IT, LT, LV, SI, SK, UK
Prohibited	FI, NO, SE

1. Minimum control measures are set out in Regulation (EC) 2160/2003, annex II (C).

2. In the United Kingdom, only flocks that are positive for *S. Enteritidis* or *S. Typhimurium* are compulsorily slaughtered

3. Destruction of the hatching eggs

4. Destruction of incubated eggs, not yet incubated eggs may be pasteurised

5. In the Netherlands, only flocks that are positive for *S. Enteritidis* or *S. Typhimurium* are obligatory slaughtered

6. In Slovenia, only flocks that are positive for *S. Enteritidis* or *S. Typhimurium* are obligatory slaughtered or destroyed

7. In case of detection of *S. Enteritidis*, *S. Typhimurium*, *S. Hadar*, *S. Virchow*, *S. Infantis* in feedingstuffs

8. In Denmark, no vaccination occurs, as no vaccinations have been approved by the Danish Veterinary and Food Administration

9. In Estonia, vaccination against *Salmonella* could only be performed basing on the Veterinary and Food Board approval

**Appendix Table SA5. *Salmonella* monitoring programmes in laying hens (*Gallus gallus*) producing table eggs, 2008**

<b>Countries running an approved monitoring and control programme<sup>1</sup> according to Regulation (EC) No 2160/2003 and meeting at least the minimum sampling requirements set out by Regulation (EC) No 1168/2006<sup>2</sup></b>			
MSs with approved surveillance programme (Decision 2007/848/EC)		All MSs except Malta	
Non-MS with approved surveillance programmes (ESA Decision No 364/07/COL)		NO	
MSs with EU co-financing (Decision 2007/782/EC as amended by Decision 2008/920/EC)		20 MSs except DK, FI, IE, LT, MT, SI, SE,	
Countries with additional sampling (see Table SA5a)		AT, CZ, DK, EE, FR, LT, NL, PL, SK, UK	
<b>Minimum requirement according to Regulation (EC) No 2160/2003 as amended by Regulation (EC) No 1168/2006</b>			
<b>Rearing period</b>		<b>Production period<sup>3</sup></b>	
Day old chicks	Dead chickens / destroyed chickens	Week 24 ± 2 weeks	Faecal samples
	Samples from the inside of the delivery boxes (internal lining/paper/crate material)	At least every 15th week thereafter	Faecal samples
2 weeks before moving	Faecal samples		
<b>Diagnostic methods used</b>			
ISO 6579 (2002)		AT, BE, BG, CZ, EE, GR, IT, NO, PL, SE, S <sup>4</sup> , SK, ES	
Modified ISO 6579 (2002)		LV	
ISO 6579 (2002) / Amendment 1:2007		FI, UK	
AFNOR NF 47 100 and 47 101		FR	
The method described in the O.I.E. manual, 5th ed., 2004		SI	
Buffered Peptone water		PT	
Various bacteriological		DK, LT, UK	
No information		CY, DE, HU, IE, LU, MT	

1. Non-MSs (EFTA members) must apply the EU legislation according to Decision of the EEA Joint Committee No 101/2006.

2. Regulation (EC) 1168/2006 sets the Community targets for the reduction of the prevalence of certain *Salmonella* types in laying hen flocks of *Gallus gallus* and setting the testing scheme to verify the achievement of the Community targets for *S. Enteritidis* and *S. Typhimurium*.

3. Once a year, the competent authority sample one flock per holding comprising at least 1,000 birds

4. ISO 6579(2002), Annex D:2007

**Appendix Table SA5a. *Salmonella* monitoring programmes in laying hens (*Gallus gallus*) producing table eggs, 2008 - additional sampling**

Day old chicks		Rearing period		Production period	
Type of sample					
Meconium	AT, EE, FR, PL, SK	Faecal samples	CZ <sup>1</sup> , DK <sup>1,2</sup> , LT, SK	Blood samples	NL <sup>1</sup>
		Dust samples	FR, UK <sup>3</sup>	Egg samples	DK <sup>2</sup>
		Blood samples	DK <sup>1,2</sup> , NL <sup>1</sup>	Faecal samples collected more frequently than every 15th week	DK, IE, LT, SK

1. Number of samples depend on flock size

2. All flocks are sampled

3. Additional dust samples taken by large proportion of UK producers on a voluntary basis before start of lay

**Appendix Table SA6. Control measures<sup>11</sup> taken in laying hens (*Gallus gallus*) producing table eggs in case of *Salmonella* infections, 2008**

<b>Control measures</b>	<b>Countries</b>
<b>Serovars covered</b>	
All Serovars	AT, DK, FI, NO, LT, SE <sup>1</sup>
S. Enteritidis and S. Typhimurium	BG, CZ, EE, ES, FR <sup>2</sup> , LV, NL, IE, PL, SK, SI, UK <sup>9</sup>
<b>Restrictions on the flock</b>	
Immediately following suspicion	BG, DK, EE, FR, IE, NO, NL, PL, SI, SE
Eggs covered by restrictions already on the basis of suspicion	DK, FR, IE, NO, NL, PL, SE, SI
<b>Consequence for the flock</b>	
Recovery or slaughter	
Slaughtered	ES, GR, IE, PL, SK
Flocks destroyed	LT
Sanitary slaughter	DK, FR
Destruction	CY, CZ, SE, SI
Slaughter or destruction	BG, EE
Sanitary slaughter or destruction	NO
Slaughter and heat treatment or destruction	FI, SI
Treatment with antibiotics	AT <sup>3</sup> , CZ, PL, SI <sup>3</sup>
<b>Consequence for the table eggs</b>	
Destruction	BG, CY, EE, SE <sup>4</sup>
Heat treatment	AT, BE, CZ, DK, FI, FR, IE <sup>5</sup> , LT, NL <sup>5</sup> , SE <sup>3</sup>
Destruction or heat treatment	ES, NO, PL, SK, SI, UK
<b>Other consequences</b>	
Feedingstuffs are restricted (heat treatment or destruction)	DK, EE, NO, SI, SE
Disposal of manure restricted	EE, FI, FR, NO, PL, SK, SI, SE
<b>Cleaning and disinfection</b>	
Obligatory	BE, BG, EE, FR, FI, DK, IE, LT, LV, NO, NL, PL, SK, SI, SE
Negative bacteriological result required before restocking	BG, ES, FR, FI, IE, LV, NO, NL, DK, SI, SE
Requirement of an empty period	DK, EE (21 days), FR, NO (30 days)
<b>Further investigations</b>	
Epidemiological investigation is always started	EE, ES, FR, FI, IE, NO, NL, SE, UK, SI
Feed suppliers are always included in the investigation	EE, FI, IE, NO, NL, SE, SI
Contact herds are included in the investigation	EE, FI, FR, IE, NO, NL, SE
Intensification of the examination of non-infected flocks on the same farm	DK, FI, FR, IE, NO, NL, SE
<b>Vaccination</b>	
Mandatory	HU
Recommended	AT <sup>6</sup> , BE
Permitted	DK <sup>7</sup> , BG, CZ, EE <sup>10</sup> , ES <sup>8</sup> , FR, LT, LV, SK, SI, UK
Prohibited	FI, NO, SE

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Note: No measures are fixed in Directive 2003/99/EC

1. In Sweden, for invasive serovars and non-invasive serovars different control strategies may be applied
2. In France, during the rearing period, *S. Typhimurium* and *S. Enteritidis* are included. During the table egg production period in holdings placing their eggs on the market via an egg packing centre, only *S. Enteritidis* is included until 60 weeks, and a last sampling is used to detect *S. Typhimurium*
3. Non-invasive *Salmonella*
4. Invasive *Salmonella*
5. Eggs are pasteurised until the flock is destroyed
6. In Austria, vaccination against *S. Enteritidis* recommended
7. In Denmark, no vaccination occurs, as no vaccines have been approved by the Danish Veterinary and Food Administration
8. In Spain, only in rearing period
9. Voluntary operator monitoring in the United Kingdom in 2007. All isolations of *Salmonella* must be reported
10. In Estonia, vaccination against *Salmonella* could only be performed based on the Veterinary and Food Board approval
11. Minimum control measures are set out in Regulation (EC) 2160/2003, annex II (D).



**Appendix Table SA7. Salmonella monitoring programmes in broiler flocks (*Gallus gallus*) and broiler meat products, 2008**

Day old chicks		Before slaughter at farm		Slaughterhouse and cutting plant		Processing plants		At retail	
<b>Type of sample</b>									
Samples from the inside of the delivery boxes (internal lining/paper/crate material)	EE, PL	Faecal samples/ boot swabs	AT, BE <sup>1</sup> , BG, DK <sup>2</sup> , EE <sup>1</sup> , ES, FI, LV, NL <sup>1</sup> , NO, PL, SI, SK, SE <sup>1</sup> , UK <sup>1,3</sup>	Neck skin samples	BE, CZ, EE, IE, LT, SE, UK <sup>1</sup>	Depend on survey or own-control plans	DK, SE	Depend on survey or own-control plans	DK, SE, UK
Dust samples (at hatchery)	UK <sup>3</sup>	Dust samples	FR	Breast skin samples	NL	Fresh meat, minced meat, final products	AT, EE, LT, LV	Fresh meat and/or, final products	AT, EE, LT, LV
Leaflets	NL	Bedding	UK <sup>1,3</sup>	Fresh meat	AT, LV	Fresh meat	IE	Fresh meat	NL, SI <sup>4</sup>
Meconium	AT, PL, SK, UK <sup>3</sup>			Carcass swabs	IE	Final product	CZ, IE	Final product	CZ, DE
Dead chicks	AT, EE, SK, UK <sup>3</sup>			At cutting plants: Crushed meat samples	EE <sup>1</sup> , FI <sup>1</sup> , SE <sup>1</sup>			Environmental samples	LV
								Meat preparations, meat products,minced meat	SI <sup>4</sup>
<b>Frequency of sampling</b>									
Each delivery	SK	1-3 weeks before slaughter	AT, BE, BG, DK, EE, ES, FI, NO, PL, SI, SK, UK	Weekly	BE, CZ, SI	Weekly	CZ	Monitoring	DE, IE, NL
Each batch	NL, EE	2 weeks before slaughter	SE	Random and continuous	AT, EE, FI	Surveys or own- control	DK, SE	Survey or own- control	DK, SE
Every 2 week at hatchery	AT	1-3 weeks before slaughter	LV	Systematic and continuous	SE	Random and continuous	AT, EE	Random and continuous	AT, CZ, EE, SI
				Continuous	LV	Continuous	LV	Continuous	LV, UK
				Each flock	IE, LT	Twice a year	IE		
				Each flock/batch	IT, NL, UK	Random or routine, depend on programme	LT		
<b>Diagnostic methods</b>									
ISO 6579 (2002)			BE, CZ, EE, ES, FI, GR, IT, NO, PL, SE (faecal samples), SK, UK						
Modified ISO 6579 (2002)			AT, DE, LV, SI						
ISO 6579 (2002) / Amendment 1:2007			FI (Flocks)						
NMKL No 71:1999			FI, SE (meat samples)						
Various bacteriological methods			DK, LT, UK						
Method in accordance with the O.I.E. manual, 5th ed., 2004			SI						
<b>Countries with no official monitoring, 2007</b>									
			CZ, ES, IT <sup>5</sup> , PT <sup>6</sup> , UK <sup>3</sup>						

Note: Monitoring is not compulsory by Directive 2003/99/EC

1. Number of samples depend on flock size or slaughterhouse/cutting plant capacity.
2. In Denmark, flocks are samples twice; 15-21 days and 7-10 days before slaughter
3. Voluntary operator monitoring in the United Kingdom in 2007. All isolations of *Salmonella* must be reported.
4. In Slovenia, monitoring is based on results from previous years.
5. In Italy, a monitoring programme is running in the Veneto Region.
6. In Portugal, a surveillance programme is running in the Beira Litoral Region.

**Appendix Table SA8. Measures taken in broilers (*Gallus gallus*) in case of *Salmonella* infections, 2008**

<b>Control measures</b>	<b>Countries</b>
<b>Serovars covered</b>	
All Serovars	AT, DK, FI, LT, NO, NL, SE <sup>1</sup>
S. Enteritidis and S. Typhimurium	BG, EE, ES, IE, LV, SI, SK, UK <sup>2</sup>
<b>Restrictions on the flock</b>	
Immediately following suspicion	DK, EE, NO, NL, SI, SE
<b>Consequence for the flock</b>	
Slaughter	SK
Slaughtered and heat treated	AT, DK, FI, LT, LV, NO, SI
Sanitary slaughter	BE, IE, NL, UK
Destruction	FI, LV, SE
Slaughter or destruction	BG, EE, IE, SK, UK
Treatment with antibiotics	AT
<b>Other consequence</b>	
Feedingstuffs are restricted (heat treatment or destruction)	EE, NO, SE
Disposal of manure restricted	EE, FI, NO, SK, SI, SE
<b>Cleaning and disinfection</b>	
Obligatory	AT, BG, DK, EE, ES, FI, LT, LV, NO, NL, SI,
Negative bacteriological result required before restocking	BG, DK, EE, ES, FI, NL, NO, SI, SE
Requirement of an empty period	AT (14 days), EE (21 days), NO (30 days after disinfection), DK
<b>Further investigations</b>	
Epidemiological investigation is always started	EE, ES, FI, IE, NO, SE, SK, UK(GB)
Feed suppliers are always included in the investigation	EE, FI, IE, NO, NL, SE
Contact herds are included in the investigation	EE, FI, NO, SE
Breeding flock that contributed to the hatch will be traced	FI, IE, NO, NL, UK, SE
<b>Vaccination</b>	
Permitted	AT, CZ, EE <sup>3</sup> , LT, LV, SI, SK, UK
Vaccine not registered	DK, ES
Prohibited	FI, NO, SE

Note: No measures fixed in Directive 2003/99/EC

1. In Sweden, for invasive serovars and non-invasive serovars different control strategies may be applied but are not used in practice
2. Voluntary operator monitoring in the United Kingdom in 2008. All isolations of *Salmonella* must be reported
3. In Estonia, vaccination against *Salmonella* could only be performed based on the Veterinary and Food Board approval

**Appendix Table SA9. Salmonella monitoring programmes in turkey breeders, 2008**

Day old chicks		Rearing period			Production period		
<b>Sampling scheme following the provisions of Directive 1992/117/EC</b>							
Samples from the inside of the delivery boxes (internal lining/paper/crate material)	FI, NO, PL, SK, LT	At age of 4 weeks and 2 weeks before moving	Faecal samples	FI, NO, PL, SK, LT	Official sampling every 8 weeks	Meconium samples at the hatchery	PL, SK
Meconium	SE	At age of 4 weeks and 2 weeks before moving	2 pairs of sock samples	SE	At hatchery: every 2 weeks	Samples from the underlying papers of hatching baskets	FI
Dead chickens/destroyed chickens	PL, SK, LT				Every 2 weeks	Faecal samples	LT
					Every 2 weeks	5 pair of sock samples	NO, SE
					Official sampling 3 times during production period	5 pair of sock samples	NO, SE
					Every 2 weeks	Dead chickens	PL, SK
					At holding: twice during laying period	Faecal samples	FI
<b>Other sampling schemes</b>							
Swabs/faeces	CZ <sup>1</sup>		Swabs/faeces	CZ <sup>1</sup> , FR, NL		Swabs/faeces	CZ <sup>1</sup> , FR, NL
Internal lining papers of delivery boxes	FR	Every 4 weeks	Chicks, dust swab	FR	Every 4 weeks	On farm: Chicks, dust swab	FR
Sample scheme approved by EU (Decision 96/389/EC)	IE	Sample scheme approved by EU (Decision 96/389/EC)		IE	Sample scheme approved by EU (Decision 96/389/EC)		IE
Samples from the lorry and 1 week after arrival: Wooswool samples	NL				Hatchery, every hatch, every machine	Fluff samples	NL
					Every 4 weeks	At hatchery: Environmental swab	FR
					Hatchery	Samples of imported eggs	AT
<b>Diagnostic methods used</b>							
ISO 6579:2002		CZ, NO, PL, SE					
ISO 6579:2002 / Amendment 1:2007		FI					
<b>Countries not providing detailed information about monitoring programmes</b>							
No information available		CY, FR, DE, GR, HU, IE, LT, LU, MT, PT, SI, ES					
No official surveillance programme		BE, BG, CZ, DK, IT, NL, UK <sup>2</sup>					
No turkey breeder flocks present		AT, EE, LV <sup>3</sup> , SI					

1. In Czech Republic, only clinically ill or suspected animals are sampled

2. In UK monitoring programmes are voluntary. Farmers producing breeders are encouraged to monitor in the same way as for *Gallus gallus* under Regulation (EC) No 2160/2003. All isolations of *Salmonella* must be reported

3. In Latvia, monitoring programmes exist, but at the moment there are no breeder flocks

**Appendix Table SA10. Salmonella monitoring programmes in turkeys, turkey meat and meat products, 2008**

Day old chicks		Rearing period and before slaughter		At slaughter and at cutting plants		Processing plants		Turkey meat and meat products at retail	
<b>Type of sample</b>									
Faecal samples/swabs	CZ <sup>1</sup>	Faecal samples/boot swabs	CZ <sup>1</sup> , DK <sup>2</sup> , FI, NO, NL, SE, SK	Fresh meat	LV, SI	Crushed meat	SE <sup>3</sup>	Routine sampling	IE
Dust samples	IE	Dust samples	FR			Fresh meat, minced meat, final products	AT, LV, LT	Fresh meat, meat preparations, meat products, minced meat	SI <sup>4</sup>
Chicks	NL	Cloacal swabs	AT	Neck skin samples	CZ, IE <sup>5</sup> , LT, SE <sup>3</sup> , SI			Fresh meat, final products	EE, LV, LT
Sampling based on the directive	PL	Sampling based on the directive	PL	Dependent on survey		Final product	CZ, IE	Final product	CZ, DE
				Carcasses	AT, IE	Depend on survey	DK, UK	Depend on survey	DK, SE, UK
				Cloacal swabs and caecum	IT				
				Crushed meat	FI <sup>3,6</sup>				
<b>Frequency of sampling</b>									
Every two months	IE	1 – 3 weeks before slaughter	AT, DK, FI, NO, PL, SK	Every Batch	SE	Twice yearly	IE	Surveys	DK
		Max 4 weeks before slaughter	NL	Weekly	CZ	Weekly	CZ	Random and continuous	CZ, EE
		2 weeks before slaughter	SE	Random and continuous	FI	Surveys	DK, UK	Continuous	LV
				Continuous	AT, LV	Continuous	AT, LV, SE	Monitoring	DE, UK, LT
				Monthly	SI			February-March	SI
				Every flock	LT	Random or routine, depend on programme	LT		
<b>Diagnostic methods used</b>									
ISO 6579:2002		CZ, EE, FI, IT, LT, LV, NO, PL, SE (faecal samples), SI, UK							
NMKL No 71:1999		FI, SE (meat samples)							
Modified ISO 6579:2002		AT, DE, IT							
ISO 6579:2002 / Amendment 1:2007		FI (Flocks)							
Depend on the laboratory and/or survey		DK							
<b>Countries not providing detailed information about monitoring programmes</b>									
No information available		AT, CY, DE, GR, HU, LT, LU, MT, PT, SK, ES							
No official surveillance programme		BE, BG, CZ, IT, UK <sup>4</sup>							
No turkey production flocks present		EE, LV							

1. In Czech Republic, only clinically ill or suspected animals are sampled

2. In Denmark, a monitoring programme exists however all turkeys are slaughtered abroad, hence no sampling

3. Sample size and frequency depend on slaughterhouse and cutting plant capacity

4. In Slovenia, monitoring is based on results from previous years

5. In Ireland, private samples by individual plants

6. Crushed fresh meat from cleaning tools, tables etc.; similar approach for ducks, geese and guinea fowl

7. Monitoring programme in UK is voluntary. All isolations of *Salmonella* must be reported

**Appendix Table SA11. Salmonella monitoring programmes in duck breeders, 2008**

Day old chicks		Rearing period			Production period		
<b>Sampling scheme following the provisions of Directive 1992/117/EC</b>							
Dead chickens	PL, SK, LT	4 and 2 weeks before moving	Faecal samples	NO, PL, SK, LT, SE	Every 2 weeks	Dead chickens	PL, SK
Samples from the internal linings of the delivery boxes	NO, PL, SK, LT				Every 2 weeks	Sock samples	NO, SE
Meconium	SE				Every 2 weeks	Faecal samples	LT
Each flock is sampled six times a year in accordance with plan approved by Decision 96/389/EC	IE				Official sampling - 3 times during the production period		NO, SE
			Each flock is sampled six times a year in accordance with plan approved by Decision 96/389/EC		Official sampling every 8 weeks	Meconium samples at the hatchery	PL, SK
<b>Other schemes</b>							
Internal lining papers of delivery boxes	FR	At 2, 10 weeks and 2 weeks before moving	On farm: Faecal and litter samples, dust swab	FR <sup>2</sup>	Every 2 month	On farm: Faecal and litter samples, dust swab	FR <sup>2</sup>
Swabs/faeces	CZ <sup>1</sup>						
<b>Diagnostic methods used</b>							
ISO 6579:2002	CZ, NO, PL, LT, SE (faecal samples)						
NMKL No 71:1999	SE (meat samples)						
<b>Countries not providing detailed information about monitoring programmes</b>							
No information available	AT, CY, FI, FR, DE, GR, HU, IE, LT, LU, MT, NL, PT, SI, ES						
No official surveillance programme	BE, BG, CZ, DK, IT, SI, UK <sup>4</sup>						
No duck breeder flocks present	EE, LV						

1. In Czech Rep., only clinically ill or suspected animals are sampled

2. In France, 1 gauze swab (the sampling method consists in wiping 5 different sites of the poultry house)

3. In France, 1 gauze swab (the sampling method consists in wiping the wall of the hatching cabinets or the lining pads of 5 different hatching trays)

4. In UK monitoring programmes are voluntary. Farmers producing breeders are encouraged to monitor in the same way as for *Gallus gallus* under Regulation (EC) No 2160/2003. All isolations of *Salmonella* must be reported

**Appendix Table SA12. Salmonella monitoring programmes in geese breeders, 2008**

Day old chicks		Rearing period			Production period		
<b>Sampling scheme following the provisions of Directive 1992/117/EC</b>							
Samples from the internal linings of the delivery boxes	NO, PL, SK	4 and 2 weeks before moving	Faecal samples	NO, PL, SK, SE	Every 2 weeks	Dead chickens	PL, SK
Dead chickens	PL, SK				Every 2 weeks and once in between production cycles	5 pair of sock samples	NO <sup>1</sup>
Meconium	SE				Every 2nd week Official sampling every 8 weeks	Sock samples Meconium samples at the hatchery	SE PL, SK
<b>Other schemes</b>							
Internal lining papers of delivery boxes	FR	At 2, 10 weeks and 2 weeks before moving	On farm: Faecal and litter samples, dust swab	FR	Every 2 month	On farm: Faecal and litter samples, dust swab	FR
Swabs/faeces	CZ <sup>2</sup>		Swabs/faeces	CZ <sup>2</sup>		In hatchery: Environmental swab Swabs/faeces	FR CZ <sup>2</sup>
<b>* LT there is no breeding flocks at the moment. LT applies general monitoring programme for poultry.</b>							
ISO 6579:2002		CZ, NO, PL, SE					
<b>Countries not providing detailed information about monitoring programmes</b>							
No information available		AT, CY, FI, DE, GR, HU, IE, LT <sup>3</sup> , LU, MT, NL, PT, SI, ES					
No official surveillance programme		BE, BG, CZ, DK, IT, SI, UK <sup>4</sup>					
No geese breeder flocks present		EE, LV					

1. Official sampling 3 times during production period

2. In Czech Republic, only clinically ill or suspected animals are sampled

3. In Lithuania there is no breeding flocks at the moment. LT applies general monitoring programme for poultry.

4. In UK monitoring programmes are voluntary. Farmers producing breeders are encouraged to monitor in the same way as for *Gallus gallus* under Regulation (EC) No 2160/2003. All isolations of *Salmonella* must be reported

**Appendix Table SA13. *Salmonella* monitoring programmes in ducks and geese – production level, 2008**

Day old chicks		Rearing period and before slaughter		At slaughter	
<b>Type of sample</b>					
Faecal/swabs	CZ <sup>1</sup>	Faecal samples/ boot swabs	CZ <sup>1</sup> , DK <sup>2</sup> , NO, SE	Carcass samples	IE
Sampling based on the Directive 2003/99/EC	PL	Sampling based on the Directive 2003/99/EC	PL	Sampling based on the Directive 2003/99/EC	PL
		Cloacal swabs	AT	Neck skin samples	AT <sup>3</sup> , SE
				Faecal samples/ boot swabs	CZ <sup>1</sup>
<b>Frequency of sampling</b>					
		1 – 3 weeks before slaughter	AT, DK, NO, PL, SE		
<b>Diagnostic methods used</b>					
ISO 6579:2002		CZ, NO, PL, LT, SE			
NMKL No 71:1999		SE (neck skin)			
<b>Countries not providing detailed information about monitoring programmes</b>					
No information available		AT, CY, FI, FR, DE, GR, HU, LT, LU, MT, NL, PT, SK, SI, ES			
No official surveillance programme		BE, BG, CZ, IT, SI, UK <sup>4</sup>			
No duck and geese production flocks present		EE, LV			

1. In Czech Republic, only clinically ill or suspected animals are sampled
2. In Denmark, from 2007 all flocks are slaughtered abroad hence no sampling at the moment
3. In Austria, flocks with positive findings in cloacal swabs (and if the carcasses is not subject to heat-treatment)
4. Monitoring programme in the United Kingdom is voluntary. All isolations of *Salmonella* must be reported

**Appendix Table SA14. *Salmonella* monitoring programmes in pigs, 2008**

Breeding and multiplying herds - at farm		Fattening herds – at farm		Fattening herds – at slaughter	
<b>Type of sample</b>					
Blood samples	DK	Blood samples	BE <sup>1</sup>	Meat juice	DK <sup>6</sup> , UK <sup>7</sup>
Faecal samples/ boot swabs	CZ, DK <sup>4</sup> , EE <sup>3</sup> , FI <sup>3</sup> , NO, SE	Faecal samples/ boot swabs	AT, CZ, DK <sup>4</sup> , EE <sup>3</sup> , FI, NL, NO, SE <sup>5</sup>	Faecal samples/ boot swabs	CZ, DK <sup>1</sup> , ES
Carcass/rectal swabs/litter/feed	SI	Carcass/rectal swabs/litter/feed	SI	Lymph nodes	EE, BG, FI <sup>1</sup> , NO <sup>1,2</sup> , SE <sup>1</sup>
				Fresh meat	SI
				Carcass swabs	BE, DK, FI <sup>1</sup> , NO <sup>1,2</sup> , SE <sup>1</sup> , EE
<b>Frequency of sampling</b>					
Monthly	DK	Clinical suspicion	NO, SE, SI, SK	Clinical suspicion	CZ, SE
Clinical suspicion	CZ, FI, SE, SI, SK	Random samples	NL	Continuous, random samples	BE, BG, DK, EE, ES, FI, NO, SE, SI
Once a year – all elite herds	FI, NO, SE				
Twice a year - all sow herds	SE				
<b>Diagnostic methods</b>					
Modified ISO 6579 (2002)		AT, LT, SE (faecal samples)			
ISO 6579 (2002)		BG, CZ, EE, FI, GR, NL, SI, SK			
Mix ELISA		DK, UK			
NMKL No 71:1999		FI, NO, SE (at slaughter)			
<b>Strategies in countries with no official sampling strategies</b>					
No official monitoring		BE <sup>8</sup> , CY, CZ, GR, IT <sup>9</sup> , LV, PL, SK, LT, UK <sup>7</sup>			

Note: Monitoring is not compulsory by Directive 2003/99/EC.

1. Number of samples depends on slaughterhouse capacity or farm capacity.
2. In Norway, sows from multiplying herds are sampled in the same way as slaughter pigs at slaughter.
3. In Finland and Estonia, all pigs sent to semen collection centres have to be examined for *Salmonella* with negative results.
4. In Denmark, pen faecal sampling is carried out if serological results from the blood samples (breeding and multiplying herds) and meat juice samples (fattening pigs) are too high.
5. In Sweden, pen faecal samples herds are affiliated to voluntary health control program.
6. In Denmark, all herds producing more than 200 pigs for slaughter per year are monitored.
7. In the United Kingdom, sampling is voluntary. All isolations of *Salmonella* must be reported.
8. In Belgium, samples are collected as part of a monitoring programme for Aujeszky's disease.
9. In Italy, a monitoring programme is running in the Veneto Region.



**Appendix Table SA15. Measures taken in pig herds in case of *Salmonella* infections or *Salmonella* findings, 2008**

<b>Control measures</b>	<b>Countries</b>
<b>Serovars covered</b>	
All Serovars	AT <sup>2</sup> , DK, EE <sup>3</sup> , FI, SE, NO, UK (GB), SI
Only <i>S. Enteritidis</i> , <i>S. Typhimurium</i>	CZ, UK (Northern Ireland)
<b>Restrictions on the farm</b>	
Animal movement prohibited	FI, SE, NO, SI <sup>4</sup>
Isolation of <i>Salmonella</i> positive animals	EE, FI, NO, SE, SI <sup>4</sup>
Person contacts restricted	EE, SE, NO, SI <sup>4</sup>
Advise to the farm for controlling the infection	FI, SE, NO, UK, SI <sup>4</sup>
<b>Consequence for slaughter animals</b>	
Slaughterhouse is informed on positive animals	EE, NO, SE, FI
Sanitary slaughter	DK <sup>5</sup> , EE, FI, NO <sup>6</sup> , SE <sup>7</sup>
Contaminated food withdrawn from market	NO, SE
Treatment with antibiotics	EE, SI
<b>Other consequences</b>	
Feedingstuffs are restricted (heat treatment or destruction)	SE, SI
Treatment of manure / sludge	EE, DK <sup>5</sup> , SI <sup>4</sup> , SE, NO
Public health advice	UK
Cleaning and disinfection obligatory	EE, FI, NO, SI <sup>4</sup> , SE
Repeated negative testing necessary before lifting the restrictions <sup>1</sup>	EE, FI, SE, NO, SI <sup>9</sup>
Reduction in payment for positive slaughter pigs	DK
<b>Further investigations</b>	
Epidemiological investigation is started	BE, DK, EE, FI, NO, SI <sup>4</sup> , SE
Feed suppliers are included in the investigation	DK, EE, FI, NO, SE
Contact herds are included in the investigation	DK, FI, NO, SE
<b>Vaccination</b>	
Permitted	BG, CZ, UK, SI <sup>4</sup>
No vaccination occur	AT, BE <sup>8</sup> , DK <sup>8</sup> , SE
Prohibited	EE, FI, NO

Note: No measures fixed in Directive 2003/99/EC

1. Typically, two consecutive samplings one month apart
2. In Austria, the carcasses contaminated with *Salmonella* are unfit for human consumption and must be removed. In all slaughtered animals descending from the same holding a post-mortem bacteriological examination has to be initiated
3. In Estonia, *S. Enteritidis*, *S. Typhimurium*, *S. Dublin*, *S. Newport* and *S. Cholerasuis* are notifiable
4. Measures are taken in case of clinical signs
5. In Denmark, herds with a high serological *Salmonella* index
6. In Norway, samples from all sanitary slaughtered animals must be tested for *Salmonella*. If positive, the carcass is condemned
7. In Sweden, samples are collected from all sanitary slaughtered animals
8. No vaccine has been approved
9. Two consecutive samplings 7 days apart

**Appendix Table SA16. Salmonella monitoring programmes in pigs and pig meat, 2008**

Slaughterhouse and cutting plant		Processing plants		Pork and pork products at retail	
Type of sample					
Meat juice	UK <sup>5</sup>	Surface swabs	HU	Regional programmes	UK (GB)
Surface swabs	BE, CZ, DK <sup>1</sup> , EE <sup>1</sup> , FI <sup>1</sup> , DE, NO <sup>1</sup> , SE <sup>1</sup>	Depend on survey or own-control plans	DK <sup>2</sup> , SE <sup>2</sup>	Depend on survey or own-control plans	DK <sup>2</sup> , SE <sup>2</sup>
Fresh meat	EE <sup>1</sup> , HU <sup>4</sup>	Fresh meat	EE, HU <sup>4</sup> , LV	Fresh meat	NL
Lymph nodes	BG, NO <sup>1</sup> , SE <sup>1</sup> , FI, SI	Final product	CZ, EE, IE	Final product	CZ, DE
Cutting and minced meat samples	BE, NO <sup>6</sup>			Minced meat	AT, BE
				Minced meat, meat products, meat preparations (meat from bovine animals and pig)	SI
Crushed meat samples (cutting plants)	FI <sup>1</sup> , NO <sup>1,3</sup> , SE <sup>1</sup>			Fresh meat, final products	AT, EE, LV, LT
Not reported	ES	Not reported	ES	Not reported	ES
Frequency					
Random and continuous	BG, DK, EE, ES, FI, HU, NO,	Random and continuous	CZ, EE, ES, LV	Random and continuous	AT, CZ, EE, ES, LV, NL,
Weekly	BE	Follow the Directive 2003/99/EC	CZ	Weekly	BE
Every 2 weeks	CZ			Voluntary	CZ
Diagnostic methods					
Modified ISO 6579:1999		AT, DE, IT			
Belgian official method SP-VG-M002		BE			
ISO 6579:2002		BG, CZ, EE, FI, HU, IT, LV, SI, SE, ES			
Depend on the laboratory and/or survey		DK			
NMKL No 71:1999		FI, NO, SE			
Any method according to Comm. Decision 2003/470		SE			

Note: Monitoring is not compulsory by Directive 2003/99/EC

In this table priority is given to slaughterhouse sample based approaches; farm based approaches at slaughterhouse may be described in Table SA14

1. Sample size and frequency depend on slaughterhouse capacity
2. Sampling by local authorities
3. Samples collected from cutting equipment, cleaning tools, tables etc.
4. In Hungary, sampling strategy is based on the previous years production
5. Voluntary monitoring and control scheme in the United Kingdom
6. Sampling according to Directive 94/65/EC

**Appendix Table SA17. Salmonella monitoring programmes in cattle and bovine meat, 2008**

Breeding herds -		Cattle - at farms		Slaughterhouse and cutting plant		Processing plants		Beef at retail	
<b>Type of sample</b>									
Faecal samples	EE <sup>4</sup> , FI <sup>4</sup>	Faecal samples	DK <sup>1</sup> , CZ, EE <sup>3</sup> , FI, DE, NL, NO, SE, SK, UK <sup>8</sup>	carcass swabs	CZ, DK <sup>2</sup> , EE <sup>2</sup> , FI <sup>2</sup> , LV, NO <sup>2</sup> , SE <sup>2</sup>	Depend on survey or own-control plans	DK <sup>5</sup> , SE <sup>5</sup>	Depend on survey or own-control plans	DK <sup>5</sup> , SE <sup>5</sup> , UK <sup>5</sup>
		Bulk milk/Blood samples	DK	Lymph nodes at slaughter	FI <sup>2</sup> , NO <sup>2</sup> , SE <sup>2</sup>	Scrapings	SE	Minced beef	AT, BE, EE, SI
		Organ samples	UK <sup>9</sup>	Fresh meat at cutting plants	AT, HU, SI	Fresh meat, minced meat, final products	AT, EE, DE, HU, ES	Fresh meat	NL
				Crushed meat samples <sup>6</sup> at cutting plants	EE <sup>2</sup> , FI <sup>2</sup> , NO <sup>2</sup> , SE <sup>2</sup>	Final product	CZ, HU	Fresh meat, final products	AT, EE, HU, LT
				Faeces (at slaughterhouse)	CZ, DE, ES, SI, SK			Final product	CZ, DE
				Minced beef	AT, BE			Meat preparations, meat products	SI
<b>Frequency of sampling</b>									
	Every three month	DK		Weekly	BE			Weekly	BE
	Once a year	NL		Monthly	CZ	Monthly	CZ	Monthly, voluntary	CZ
	Clinical suspicion	FI, DE, NO, CZ, SK, SE		Random and continuous	AT, EE, DK, DE, FI, NO, SE, SI <sup>10</sup> , ES	Random and continuous	AT, EE, DE, HU, ES	Random and continuous	AT, CZ, EE, HU, DE, ES, SI
					CZ, DE	Sampling according to Directive 94/65/EC	NO		
<b>Diagnostic methods used trough the production</b>									
Modified ISO 6579 (2002)		AT, CZ, DE, EE, FI, FR, HU, IT, SE, SK, SI, ES, LT							
ISO 6579 (2002)		CZ, EE, FI, GR, LV, SK							
Mix-ELISA		DK							
Belgian official method SP-VG-M002		BE							
NMKL No 71:1999		FI, NO, SE							
Other approved methods according to Decision 2003/470/EC		SE							
<b>Strategies in countries with no official sampling strategies, 2007</b>									
No official monitoring		BE, BG, CY, CZ, GR, IT <sup>7</sup> , LV <sup>8</sup> , PL, SK, UK <sup>9</sup>							

Note: Monitoring is not compulsory by Directive 2003/99/EC

1. In Denmark, when requested by the farmer
2. Sample size and frequency depend on slaughterhouse and cutting plant capacity
3. In Estonia, number of samples depend on herd size
4. In Estonia and Finland, all animals sent to semen collection centres have to be examined for *Salmonella* with negative results
5. Sampling by local authorities
6. Samples collected from cutting equipment, cleaning tools, tables etc.
7. In Italy, a monitoring programme is running in the Veneto Region
8. In Latvia no official monitoring at farm level, but samples are collected through an official surveillance at slaughterhouse level.
9. In the United Kingdom, sampling is voluntary. Reporting of isolation of *Salmonella* in all farmed animals is statutory
10. Frequency of sampling depends on slaughterhouse and cutting plant capacity

**Appendix Table SA18. Measures to take in cattle herds in case of *Salmonella* infections or *Salmonella* findings, 2008**

<b>Control measures</b>	<b>Countries</b>
<b>Serovars covered</b>	
All Serovars	AT, DK, EE, FI, NO, SE, UK <sup>7</sup> , SI
Only <i>S. Enteritidis</i> , <i>S. Typhimurium</i>	CZ
<b>Restrictions on the farm</b>	
Animal movement prohibited	FI, DK (Multiresistant <i>S. Typhimurium</i> DT 104), SE, NO, SI <sup>3</sup>
Isolation of <i>Salmonella</i> positive animals	EE, FI, NO, SE, SI <sup>3</sup>
Person contacts restricted	EE, NO, SE, SI <sup>3</sup>
Restriction on marketing of milk	FI, NO, SE
Pasteurisation of milk obligatory	EE, FI, NO, SE
Advise to the farm for controlling the infection	DK, FI, NO, SK, SE, UK, SI <sup>3</sup>
<b>Consequence for slaughter animals</b>	
Slaughterhouse is informed on positive animals	EE, FI, NO, SE
Sanitary slaughter	EE, DK, FI, NO <sup>2</sup> , SE <sup>4</sup>
Contaminated food withdrawn from the market	AT, NO, SE
Destruction of positive animals	DE, SE (in some instances)
Treatment with antibiotics	EE, SI <sup>3</sup>
<b>Other consequences</b>	
Feedingstuffs are restricted (heat treatment or destruction)	SK, SE, SI <sup>3</sup>
Treatment of manure / sludge	EE, DK, NO, SK, SE, SI <sup>3</sup>
Cleaning and disinfection obligatory	EE, FI, NO, SE, SI <sup>3</sup>
Repeated negative testing necessary before lifting the restrictions <sup>1</sup>	EE, DK, FI, NO, SE
Public health advise	UK
<b>Further investigations</b>	
Epidemiological investigation is always started	DK (Multiresistant <i>S. Typhimurium</i> DT 104), EE, FI, NO, SK, SE, UK (Northern Ireland) <sup>5</sup> , SI <sup>3</sup>
Feed suppliers are always included in the investigation	EE, FI, NO, SE
Contact herds are included in the investigation	DK (Multiresistant <i>S. Typhimurium</i> DT 104), FI, NO, SE
<b>Vaccination</b>	
Permitted	CZ, DE, UK (GB: <i>S. Dublin</i> ), SI
No vaccination occur	AT, BE <sup>6</sup> , DK <sup>6</sup> , SE
Prohibited	EE, FI, NO

Note: No measures fixed in Directive 2003/99/EC

1. Typically, two consecutive samplings one month apart
2. In Norway samples from all sanitary slaughtered animals must be tested for *Salmonella*. If positive, the carcase is condemned
3. Measures are taken in case of clinical signs
4. In Sweden, all sanitary slaughtered animals are analysed for *Salmonella*
5. In Northern Ireland, when *S. Enteritidis*, *S. Typhimurium* is isolated, or any serotype is isolated in milk
6. No vaccine has been approved
7. Scanning surveillance in the United Kingdom in 2008. All isolations of *Salmonella* must be reported

**Appendix Table SA19. Notification on *Salmonella* in humans (V=Voluntary, O=Other), *Gallus gallus*, other animals and food, 2008.**

	Notifiable in humans since	Notifiable in <i>Gallus gallus</i> since	Notifiable in other animals since	Notifiable in food since
Austria	1947 <sup>1,2</sup>	1998 <sup>3</sup>	1994 <sup>4</sup>	1975
Belgium	< 1999 V	1998	1998	2004
Bulgaria	yes	2008	2007	0
Cyprus	yes	yes	yes	-
Czech Republic	yes	yes	yes	-
Denmark	1979	no	1993 <sup>4</sup>	-
Estonia	1958	2000 <sup>5</sup>	2000 <sup>5</sup>	2000
Finland	1995 <sup>6</sup>	1970's	1970's	1970's
France	1986 V	yes <sup>7</sup> (1998)	-	yes
Germany	yes	-	yes	-
Greece	yes	1992	1980	-
Hungary	1959	no	no	1984
Ireland	1948	1996	1992	not notifiable <sup>8</sup>
Italy	1990	1954	1954	1962
Latvia	1958	yes	yes	2002
Lithuania	1962	yes	yes	-
Luxembourg	yes		1985	
Malta	yes	-	-	-
Netherlands	no <sup>9</sup> V	yes	yes	-
Poland	1961	1999 <sup>10</sup>	-	-
Portugal	yes	yes	yes	-
Romania	yes			
Slovakia	yes	2004	yes <sup>4</sup>	2000
Slovenia	1949	1991 <sup>11</sup>	1991 <sup>11</sup>	2003
Spain	1982 V	1994	1994	1994
Sweden	1968	1961	1961	1961
United Kingdom	no O	1989 <sup>12</sup>	1989 <sup>12</sup>	no
Iceland	yes			
Liechtenstein	yes			
Norway	1975	1965	1965	1995 <sup>13</sup>
Switzerland	yes	1966	1966	-

1. In Austria, notifiable since 14 April 1913, re-proclaimed 12 June 1947, adapted on 28 April 1950

2. In Austria, clinical cases notifiable since 1996

3. In Austria, detection of *S. Enteritidis*, *S. Typhimurium*, *S. Pullorum* and *S. Gallinarum* notifiable in breeding animals

4. Clinical cases notifiable

5. In Estonia, *S. Enteritidis*, *S. Typhimurium*, *S. Dublin*, *S. Newport* and *S. Cholerasuis* are notifiable

6. In Finland, notifiable also before 1995, but legislation changed in 1995

7. In France, in breeding flocks and laying hens, *S. Enteritidis* and *S. Typhimurium*, only (2006)

8. In Ireland, Reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

9. In the Netherlands, only notifiable if the patient is working in the food industry or horeca, work with treatment or nursing of other persons, or belongs to a group of two or more persons which eat/drink the same food within a period of 24 hours

10. In Poland, *S. Enteritidis*, *S. Typhimurium*, *S. Pullorum* and *S. Gallinarum* are notifiable in poultry

11. In Slovenia, the year of independence, however this disease was notifiable before 1991

12. Reportable diseases (in animals) are those where there is a statutory requirement to report laboratory confirmed isolation of organisms of the genus *Salmonella* under the Zoonoses Order 1989.

13. In Norway, only those detected in the national control programme

Appendix Table CA1. *Campylobacter* monitoring, surveys and diagnostic methods used for humans animals and food, 2008

	Human		<i>Gallus gallus</i>		Broiler meat		Other food	
	Sample type	Diagnostic	Sample type	Diagnostic	Sample type	Diagnostic	Sample type	Diagnostic
Austria	Faecal	Bacteriology	At slaughter: Caeca	Bacteriology, ISO 10272-1:2006(E)	At slaughter: Carcass. At processing/retail: Fresh and meat products	Bacteriology, ISO 10272-1:2006(E)	Retail: Raw milk, cheeses made from raw milk	ISO 10272:1995 or enrichment method
Belgium	-	-	Cattle and pig: Colon At slaughter: Caeca	Bacteriology (in cattle at first enrichment) -	At slaughter/ processing/ retail: Carcass, cut and meat preparation	SP-VG-M003 (enrichment, bacteriology and PCR)	Pork at slaughter/ processing/ retail: Carcass and minced meat no	SP-VG-M003 (enrichment, bacteriology and PCR) no
Bulgaria	-	Bacteriology	At slaughter: Caeca	-	At slaughter/processing/ retail: Carcass, cut and meat preparation	-	-	-
Cyprus	-	-	-	-	-	-	-	-
Czech Republic	-	-	At slaughter: Cloacal swaps	ISO 10272:1997	At slaughter: Carcass At processing/retail: Fresh and meat products	ISO 10272:1995	Retail: Cheeses	ISO 10272:1995
Denmark	Faecal	Bacteriology	At slaughter: Cloacal swaps	PCR	At processing/retail: Depends on survey	-	-	-
Estonia	Faecal	Bacteriology	At slaughter: Intact caeca	ISO 10272 -1:2006 (E)	At slaughter: Carcass (neck skin at laboratory), Intact caeca At retail: Meat preparation, meat products, minced meat	Slaughter/ processing: ISO 10272-1:2006	Pig meat and bovine meat at retail	Retail: NMKL 119:1990
Finland	-	Bacteriology	At slaughter: Caeca	NMKL 119:2007 w/no enrichment Multiplex PCR	-	-	-	-
France	Faecal	Bacteriology	At slaughter: Caeca	-	At slaughter: Neck skin	-	-	-
Germany	-	-	At slaughter: Caeca	ISO 10272	-	-	-	-
Greece	-	-	-	-	-	-	-	-
Hungary	Faecal	Bacteriology	-	-	-	-	-	-
Ireland	-	-	Carcass	Bacteriology	-	-	-	-
Italy	-	-	At slaughter: Cloacal swaps (Veneto region)	Bacteriology	-	-	-	-
Latvia	-	-	At slaughter: Caeca	OIE Manual chapter 2.10.8.B.1.	At slaughter: Fresh meat At retail: Fresh meat and meat products	ISO 10272:1995	-	-
Lithuania	-	Bacteriology	At slaughter: Cloacal and neck skin	Bacteriology	At processing/retail: Depends on survey	-	-	-
Luxembourg	-	-	Meat	Vidas.conf. Bacteriology	Meat	Vidas/bacteriology	Meat	Vidas/bacteriology
Netherlands	-	-	-	-	at retail	ISO 10272:2006	Raw meat at retail; turkey at retail	ISO 10272:2006
Poland	Faecal	Bacteriology	-	-	-	-	-	-
Portugal	-	-	-	-	-	-	-	ISO 10272, typing by Lior method
Romania	-	-	-	-	-	-	-	ISO 10272
Slovakia	Faeces or blood	Bacteriology	-	-	At slaughter: Neck skin	ISO 10272:1995	Pig meat and meat from bovine. At retail: Turkey meat, prepared dishes	ISO 10272:1995
Slovenia	Faecal	Bacteriology	At slaughter: Caeca	ISO 10272:1995, modified	At retail: Fresh meat	-	-	-
Spain	-	Bacteriology	Rearing: at farm, before slaughter; at slaughter: Faeces	ISO 10272	At slaughter/processing/ retail: Fresh meat and skin	ISO 10272:2006	-	-
Sweden	Faeces and blood	Bacteriology	At slaughter: Caeca	ISO 10272	At retail	NMKL 119:1990	-	NMKL 119:1990, ISO 10272, PCR
United Kingdom	Faecal	Bacteriology	At slaughter: Caeca and neck skin	ISO 10272	At retail: Fresh refrigerated meat	ISO 10272:1995	-	-
Norway	Faecal	Bacteriology	At the farm, before slaughter: Faeces At slaughter: Caeca	At the farm, before slaughter: PCR At slaughter: NMKL 119:1990 (without enrichment)	At retail: Fresh meat	NMKL 119:1990	-	-
Switzerland	-	-	At slaughter: Cloacal swaps	Bacteriology	At retail: Fresh meat	Swiss food manual	-	-

1. Survey - EU baseline survey

**Appendix Table CA2. Notification on *Campylobacter* in humans (V=Voluntary, O=Other), animals and food, 2008**

	<b>Notifiable in humans since</b>	<b>Notifiable in animals since</b>	<b>Notifiable in food since</b>
Austria	1996	no	1975
Belgium	2000 V	1998	2004
Bulgaria	yes		
Cyprus	2005	-	-
Czech Republic	yes	no	yes
Denmark	1979	no	no
Estonia	1988	2000	yes <sup>1</sup>
Finland	1995	2004 <sup>2</sup>	no <sup>3</sup>
France	2002 V	-	-
Germany	no	-	-
Greece	-	no	no
Hungary	1998	no	no
Ireland	2004	1992	not notifiable <sup>4</sup>
Italy	1990 V	no	1962
Latvia	1999	yes	2004
Lithuania	1990	>30 years	-
Luxembourg	yes	no	-
Malta	yes	-	-
Netherlands	yes V	yes	yes
Poland	2004	-	-
Portugal	-	no	-
Romania	yes		
Slovakia	1980's	no	2000
Slovenia	1987	no	2003
Spain	1989 V	1994	1994
Sweden	1989	no	no
United Kingdom	no O	no	no
Iceland	yes		
Liechtenstein	yes		
Norway	1991	yes <sup>5</sup>	yes <sup>5</sup>
Switzerland	yes	1966	no

1. In Estonia, only *C. jejuni*

2. In Finland, *Campylobacter* notifiable in *Gallus gallus* only

3. In Finland, food business operator has to notify to the competent authority, but there is no central notification system

4. In Ireland, Reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

5. In Norway, only positive samples from *Gallus gallus* detected in the national control programme



Appendix Table LI1. Monitoring programmes and diagnostic methods for *Listeria monocytogenes*, 2008

Country	Surveillance	Frequency and type of samples	HACCP	Diagnostic method	Human diagnostic	Survey on cheeses from raw and thermised milk
Austria	No monitoring programme. Surveys by the local authorities	-	yes	ISO 11290-1:1996 (E):1996,1998	Isolation of <i>L. monocytogenes</i> from blood, cerebral spinal fluid, vaginal swabs	-
Belgium	Monitoring programme started in 2004	Fresh meat and final products sampled weekly	-	Afnor validated VIDAS LMO2 followed by a chromogenic medium	-	-
Bulgaria	No monitoring programme.	-	yes	-	-	yes
Cyprus	-	-	-	-	-	-
Czech Republic	Monitoring according to the Decree of the Ministry of Health No. 132/2004 Coll	-	yes	ISO 11290-1:1996 (E):1996,1998	-	yes
Denmark	No monitoring programme. Surveys by the local authorities	-	-	-	Bacteriology	yes
Estonia	No monitoring programme. Surveys by the local authorities	Random sampling	-	ISO 11290	Isolation of <i>L. monocytogenes</i> from blood and cerebral spinal fluid	-
Finland	Survey on vegetables.	Random sampling	-	ISO 11290-1:1996 (E):1996,1998	Bacteriological culture	-
France	Monitoring programme on meat products	Random sampling	yes	Bacteriological culture	Isolation of <i>L. monocytogenes</i> from blood and cerebral spinal fluid.	no
Germany	Monitoring, surveys and own-control	-	-	-	Isolation of <i>L. monocytogenes</i> from blood and cerebral spinal fluid	-
Greece	No monitoring programme. Surveys by the local authorities	Routine and target sampling	-	-	-	-
Hungary	Monitoring milk products (EU requirements) based on Directive 92/46	-	-	-	Isolation of <i>L. monocytogenes</i> from blood and cerebral spinal fluid	-
Ireland	-	-	-	Bacteriological culture	-	-
Italy	-	-	yes	-	-	-
Latvia	No monitoring programme for animals. State surveillance programme for food.	Random sampling	yes	ISO 11290-1:1996 (E):1996,1998	Microbiological identification	-
Lithuania	-	-	-	-	Isolation of <i>L. monocytogenes</i> from blood and cerebral spinal fluid	-
Luxembourg	-	Meat +meat products	-	BRD:07/04-09/98+ BRD:07/05-09/01	-	-
Malta	Survey on cheese	-	-	-	-	-
Netherlands	Survey on raw meat; survey on smoked fish	Random sampling	-	ISO 11290	-	-
Poland	-	-	-	-	Isolation of <i>L. monocytogenes</i> from blood and cerebral spinal fluid, articular or pericardial fluid	-
Portugal	Surveillance in raw milk and milk cheese	-	-	ISO 11290	-	-
Romania	-	-	-	-	-	-
Slovakia	No monitoring programme. Surveys by the local authorities	-	-	ISO 11290	Isolation of <i>L. monocytogenes</i>	-
Slovenia	No monitoring programme for animals. Annual monitoring programme for food. In 2008 - sampling of dairy products.	-	yes	ISO 11290-1:1996 11290-2:1998 (E):1996,1998	ISO Isolation of <i>L. monocytogenes</i>	yes
Spain	-	-	-	-	Isolation of <i>L. monocytogenes</i> from a normally sterile site.	-
Sweden	No official programme. Surveys by the local authorities	Depend on survey	surveys	NMKL 136:2004, SLO METHOD	Isolation of <i>L. monocytogenes</i> from blood and cerebral spinal fluid	-
United Kingdom	No monitoring programme. National and regional surveys by the local authorities	Depend on survey	surveys	BS EN ISO 11290	culture	yes
Norway	No monitoring programme. Surveys. Obligatory own-check of certain products of milk and fish	Depend on survey	yes	NMKL 136	Isolation of <i>L. monocytogenes</i> from a normally sterile site.	-

**Appendix Table LI2. Notification of *Listeria* in humans (V=Voluntary), animals and food, 2008**

	Notifiable in humans since	Notifiable in animals since	Notifiable in food since
Austria	1947 <sup>1</sup>	no	1975
Belgium	< 1999 <sup>2</sup> V	1998	2004
Bulgaria	yes		
Cyprus	2005	-	-
Czech Republic	yes	no	-
Denmark	1993	no	-
Estonia	2003	2000	2000
Finland	1995	1995 <sup>3</sup>	no <sup>4</sup>
France	1998	no	1994
Germany	yes	yes	-
Greece	yes	1980	-
Hungary	1998	no	2003
Ireland	2004	-	not notifiable <sup>5</sup>
Italy	1990	no	1962
Latvia	1990	yes	2003
Lithuania	1998	>30 years	-
Luxembourg	yes	no	no
Malta	yes	-	-
Netherlands	yes V	yes	yes
Poland	1966	-	-
Portugal	-	no	-
Romania	yes		
Slovakia	yes	yes	2000
Slovenia	1977	<1991 <sup>6</sup>	2003
Spain	1982 V	1994	1994
Sweden	1969 <sup>7</sup>	yes	no
United Kingdom	yes V	no	no
Iceland	yes		
Liechtenstein	yes		
Norway	1975	1965	no
Switzerland	yes	1966	-

1. In Austria, notifiable since 14 April 1913, re-proclaimed 12 June 1947, adapted on 28 April 1950

2. In Belgium, in the Flemish Community

3. In Finland, notifiable also before 1995, but legislation changed in 1995

4. In Finland, food business operator has to notify to the competent authority, but there is no central notification system

5. In Ireland, Reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

6. In Slovenia, the year of independence, however this disease was notifiable before 1991

7. In Sweden, only clinical cases notifiable

**Appendix Table TB1. Notification of tuberculosis in humans, *Gallus gallus*, other animals and food, 2008**

	Notifiable in humans since	Notifiable in <i>Gallus gallus</i> since	Notifiable in other animals since	Notifiable in food since
Austria	1947/2004 <sup>1</sup>	-	1909/1999 <sup>1</sup>	-
Belgium	< 1999	1998	1963	2004
Bulgaria	yes	-	-	-
Cyprus	1932	-	yes (bovine)	-
Czech Republic	yes	yes	yes	-
Denmark	1905	1993	1920 <sup>2</sup>	-
Estonia	1950	1962	1962	no
Finland	1995 <sup>3</sup>	1995 <sup>3</sup>	1902	1902
France	yes	-	1934	-
Germany	yes	yes	yes	-
Greece	yes	-	1936 (bovine)	-
Hungary	1946	no	yes (bovine)	no
Ireland	1948	-	1966 (Cattle), 1992 (Other ruminant animals)	not notifiable <sup>4</sup>
Italy	1990	-	1954	1928
Latvia	yes	yes	1927	-
Lithuania	1990	yes	yes	-
Luxembourg	yes	-	1912	-
Malta	yes	-	-	-
Netherlands	yes	no	yes	-
Poland	1919	-	yes (bovine)	-
Portugal	yes	yes	yes	-
Romania	yes	-	yes (bovine)	-
Slovakia	yes	no	yes	-
Slovenia	1949	-	<1991 <sup>5</sup>	2003
Spain	1948	-	1952	1952
Sweden	>30 years ago	yes	1897	-
United Kingdom	yes	no	>1984 <sup>6</sup>	-
Iceland	yes	-	-	-
Liechtenstein	yes	-	-	-
Norway	1900	1965	1894	1894 <sup>7</sup>
Switzerland	yes	1950	1950	-

1. In Austria, *M. bovis* notifiable since 2004 in humans and since 1999 in animals, *M. tuberculosis* notifiable since 1947 in humans and since 1909 in animals

2. In Denmark, only clinical cases are notifiable

3. In Finland, notifiable also before 1995, but legislation changed in 1995

4. In Ireland, reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

5. In Slovenia, the year of independence. The disease was notifiable before 1991

6. In The United Kingdom, the first TB Orders were passed in 1913 and 1925 to remove clinically ill cattle. In deer, TB has been notifiable since 1st June 1989. In 2005, TB became notifiable in all mammals except man

7. In Norway, mandatory meat inspection at slaughterhouse

**Appendix Table TB-BR1. Status as officially free of bovine brucellosis (OBF), officially free of *B. melitensis* in sheep and goats (ObmF) and officially free of bovine tuberculosis (OTF)**

	<b>Bovine brucellosis</b>		<b><i>Brucella melitensis</i></b>		<b>Bovine tuberculosis</b>	
	<b>OBF<sup>1</sup> since</b>	<b>Comments</b>	<b>ObmF<sup>2</sup> since</b>	<b>Comments</b>	<b>OTF<sup>1</sup> since</b>	<b>Comments</b>
Austria	1999	-	2001	-	1999	
Belgium	2003	No cases since 2000	2001	-	2003	
Bulgaria	no	No cases since 1958			no	
Cyprus	no	Never detected in domestic animals, imported cases in 1921 and 1932	no	Eradication programme.	-	
Czech Republic	2004	Eradication programme terminated in 1964	2004	Never detected	2004	Eradication programme terminated in 1967
Denmark	1980	No cases since 1962	1979	Never detected	1980	
Estonia	no	No cases since 1961	no	No cases since 1962, surveillance of breeding herds		No cases since 1986
Finland	1994	No cases since 1960	1994	Never detected	1994	No cases since 1982
France	2005	-	2001 (64 départements)	-	2000	
Germany	2000	-	2000	-	1997	
Greece	no	Eradication programme. Thessaloniki area is eradication and vaccination area for Bovine brucellosis, only	no	Eradication programme on Islands, vaccination on the mainland	-	
Hungary	no	Declared free by OIE in 1985	2004	Never detected	no	
Ireland	no	No confirmed case since April 2006	1993	Never detected	no	
Italy	yes (13 provinces and 8 regions)	Vaccination in two areas (Monti Nebrodi in Sicily and Caserta in Campania)	yes (7 provinces and 9 regions)	Vaccination in Sicily	yes (16 provinces and 4 regions)	
Latvia	no	No cases since 1963	no	Never detected		No cases since 1989
Lithuania	no	Yes, according to OIE demands	no	Yes, according to OIE demands	no	
Luxemburg	1999	No cases since 1999	yes	-	1996	
Malta	no	No cases since 1996	no	No cases since 1996	-	
Netherlands	1996	-	1993	Never detected	yes	
Poland	no	-	yes	Surveillance of breeding herds, <i>B. melitensis</i> never detected	no	
Portugal	2002 (Azores)	Eradication programme, vaccination in exceptional situations	2002 (Azores)	Eradication programmes, regional vaccination	no	
Romania			yes			
Slovakia	2005		2004	Never detected	2005	No case since 1992
Slovenia	yes	No cases since 1961	2005		2009	No cases since 1997
Spain	no	Eradication programmes, vaccination in high risk areas	2001 (Canaries)	Eradication programmes, vaccination in high risk areas	no	
Sweden	1995	No cases since 1957	1994	-	1995	No cases since 1958
United Kingdom	1985 (GB)	Northern Ireland not officially free	1991	Never detected	no	
Norway	1994	Declared eliminated in 1953	1994	Never detected	1994	
Switzerland	1959	-	1998	-	1959	

1. OBF and OTF according to Directive 64/432/EC and Decision 2003/467/EC as last amended by Decision 2007/559/EC

2. ObmF according to Directive 91/68/EC and Decision 93/52/EC, as last amended by Decision 2007/399/EC

**Appendix Table BR1. Notification of *Brucella* in humans (V=Voluntary, O=Other), animals and food, 2008**

	Notifiable in humans since	Notifiable in animals since	Notifiable in food since
Austria	1947 <sup>1</sup>	1957	1975
Belgium	< 1999 V	1978	2004
Bulgaria	yes		
Cyprus	1983	-	-
Czech Republic	yes	yes	-
Denmark	no <sup>2</sup>	1920 <sup>3</sup>	-
Estonia	1947	1962	no
Finland	1995	1920's	1920's
France	1960 <sup>4</sup> V	1965	-
Germany	yes	yes	-
Greece	-	1972	-
Hungary	1950	1928	no
Ireland		1966 (Cattle), 1992 (Other ruminant animals)	Not notifiable <sup>5</sup>
Italy	1990 V	1954	1929
Latvia	1974	1927	-
Lithuania	1957	>30 years	-
Luxembourg	yes	1948	-
Malta	yes	-	-
Netherlands	yes V	yes	yes
Poland	1946	1951	-
Portugal	-	yes	-
Romania	yes		
Slovakia	yes	yes	-
Slovenia	1977	<1991 <sup>6</sup>	2003
Spain	1943 V	1952	1952
Sweden	2004	yes	no
United Kingdom	1996 <sup>7</sup> O	1971 <sup>8</sup>	1989
Iceland	yes		
Liechtenstein	yes		
Norway	1975	1903	no
Switzerland	yes	1966	-

1. In Austria, notifiable since 14 April 1913, re-proclaimed 12 June 1947, adapted on 28 April 1950

2. In Denmark, only imported cases registered centrally

3. In Denmark, only clinical cases are notifiable

4. In France, mainly imported cases

5. In Ireland, Reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

6. In Slovenia, the year of independence. The disease was notifiable before 1991

7. In the United Kingdom, reportable under Reporting of Injuries, Disease and Dangerous Occurrences Regulations – applies to all work related activities but not to all incidents

8. In the United Kingdom organisms of the genus *Brucella* are reportable in animals - ie there is a statutory requirement to report laboratory confirmed isolation of the organism

**Appendix Table RA1. Vaccination programmes for rabies in animals, 2008**

Country	Vaccination programmes in pets	Vaccination programmes in wildlife
Austria	Voluntary vaccination of pets	Since 1991, oral vaccines distributed to foxes twice a year.
Bulgaria	Compulsory vaccination of dogs	-
Belgium	Compulsory vaccination of dogs and cats in the south and if staying at public campgrounds	Oral vaccines was distributed from 1989 to 2003.
Cyprus	Compulsory vaccination of animals entering Cyprus	-
Czech Republic	Compulsory vaccination of carnivores in captivity	In 1989, oral vaccination of foxes in some districts. In 2003, covers the whole country except for rabies free districts. Since 2004, vaccination twice a year by air in selected areas, mainly along the border with Poland and Slovakia. The programme is approved and co-financed by EU (Decision 2007/782/EC) for 2008-2009.
Denmark	-	-
Estonia	Compulsory vaccination of dogs and cats	In autumn 2005 oral vaccination of wildlife in the Northern part of the country. Since 2006 oral vaccines distributed to foxes twice a year by airplane. The programme is approved and co-financed by EU (Decision 2007/782/EC) for 2008-2011.
Finland	Vaccination in dogs and cats are recommended	Since 1991, oral vaccines distributed to foxes and raccoon dogs twice a year along the Russian border by flight. Since 2004, oral vaccines distributed to foxes twice a year. The programme is approved and co-financed by EU (Decision 2007/782/EC) for 2008-2010.
France	-	-
Germany	Voluntary vaccination of pets, compulsory vaccination of animals used for hunting	Oral vaccines distributed to foxes twice a year in endemic areas. The programme is approved and co-financed by EU ( Decision 2007/782/EC) for 2008-2009.
Greece	Compulsory vaccination of dogs and cats	-
Hungary	Compulsory vaccination of dogs, voluntary vaccination of cats	Since 2004, oral vaccines distributed to foxes twice a year by flight. The programme started in 1997.
Ireland	-	-
Italy	Compulsory vaccination of dogs in infected municipalities	Oral vaccines distributed to foxes in the Region Friuli Venezia Giulia
Latvia	Compulsory vaccination of dogs, cats and pet ferrets	Since 1998, oral vaccines distributed to foxes and raccoon dogs twice a year, from 2005, by flight. The programme is approved and co-financed by EU (Decision 2007/782/EC) for 2008-2010.
Lithuania	Compulsory vaccination of dogs and cats	Since 1995, Oral vaccines distributed to foxes twice a year by flight.
Luxembourg	-	-
Malta	-	-
Netherlands	-	-
Poland	Vaccination programme for dogs since 1949	Since 2002, oral vaccines distributed to foxes twice a year by flight.
Portugal	Compulsory vaccination of dogs since 1925	-
Romania	Compulsory vaccination of dogs and cats	In 2006, oral vaccines was distributed manually in restricted areas
Slovakia	Compulsory vaccination of domestic carnivores	Since 1994, oral vaccines distributed to foxes twice a year by flight.
Slovenia	Compulsory vaccination of dogs since 1947	Oral vaccines distributed to foxes twice a year by flight. The programme is approved and co-financed by EU (Decision 2007/782/EC) for 2008-2012.
Spain	Compulsory vaccination dogs in 10 regions, Ceuta and Melilla. Voluntary in the remaining of the country	From 2004, compulsory surveillance according to Directive 2003/99/EC
Sweden	Vaccination of dogs and cats being brought in and out of the country	-
United Kingdom	Vaccination is permitted those animals being exported, and those undergoing quarantine	-
Norway	Vaccination of dogs and cats being brought in and out of the country	-
Switzerland	Compulsory vaccination of dogs brought in to the country from countries not free from rabies	-

**Appendix Table RA2. Type of samples and diagnostic methods used when diagnosing rabies in humans and animals, 2008**

	Humans		Animals	
	Type of sample	Diagnostic test	Type of sample	Diagnostic test
Austria	Liquor, smears from pharynx, swab from conjunctivae, biopsy at the nape of the neck and serum	FAT, immunohistochemistry, RT-PCR	Brain	Fluorescent antibody test (FAT), rabies tissue culture infection test (RT-CIT). Mouse inoculation test (MIT)
Belgium	Blood, cerebrospinal fluid, saliva, post mortem brain tissue	Antigen detection, Virus isolation in neuroblastoma cells, RT-PCR, Virus isolation in mice; Rapid Fluorescent Focus Inhibition test RFFIT.	Brain	FAT, virus cultivation in neuroblast
Bulgaria	-	-	-	Direct immune-flourescent test (IFT)
Cyprus	-	-	Brain	Hellers stain
Czech Republic	-	-	Brain	FAT
Denmark	Blood samples, skin biopsy from neck	-	Brain	FAT, virus isolation
Estonia	-	-	Brain	FAT
Finland	-	Human: cultivation, serology, antigen-test, direct microscopy.	Brain	FAT, cell culture, RT-PCR
France	Cerebrospinal fluid, blood, saliva, if post-mortem: brain tissue	PCR, FAT, immunohistochemistry, direct microscopy, RFFIT	Brain	FAT, cell culture, RT-PCR, MIT, FAVN
Germany	-	-	-	FAT, cell culture
Greece	-	-	-	-
Hungary	Cerebrospinal fluid, blood	In vivo from cornea imprint of the patient by immunofluorescence method, or determination of specific antibody titre of the blood or liquor by immunofluorescence method during the second week of the illness. Post mortem: detection of the Negri-body in the brain tissue, or the antigen by immunofluorescence method, or identification of the viral genetic material by PCR, or isolation of the virus in mouse.	-	-
Ireland	-	-	-	-
Italy	Cerebrospinal fluid, liquor, saliva, blood, brain tissue	FAT, TCIT, RT-PCR	Brain	FAT, TCIT, RT-PCR
Latvia	-	Elisa	Brain	FAT, MIT
Lithuania	Cerebrospinal fluid, saliva	Isolation of virus, antigen detection, mouse inoculation test, ELISA, PCR.	-	-
Luxembourg	-	-	Brain	FAT, virus isolation (by sub-contractance)
Malta	-	-	-	-
Netherlands	-	-	-	-
Poland	Cerebrospinal fluid, blood, saliva, if post-mortem: brain tissue	FAT, RT-PCR, MIT, RFFIT	Brain	FAT, MIT, RFFIT
Portugal	-	-	-	Direct immune-flourescent test (IFT)
Romania	-	-	-	-
Slovakia	Cerebrospinal fluid, saliva, serum, brain tissue	Isolation of virus, antigen detection, detection of virus nucleic acids, virus neutralization assay	Brain	FAT, ELISA, RT-PCR, MIT, FAVN
Slovenia	Cerebrospinal fluid, saliva, if post-mortem: brain tissue	Serology, isolation on cell cultures, mouse inoculation test, RT-PCR, FAT	Brain	Serology, isolation on cell cultures, mouse inoculation test, RT-PCR, FAT
Spain	Cerebrospinal fluid, blood, skin biopsy from neck.	FAT, RFFIT, MIT, PCR	Brain tissue/blood	FAT, ELISA
Sweden	Serum, CSF	Serology, antigen detection, isolation of virus, PCR	Brain tissue	FAT, MIT, PCR, virus isolation
United Kingdom	Cerebrospinal fluid, blood, saliva	Serology, antigen detection, isolation of virus	Brain tissue	FAT, MIT, histology, PCR
Norway	Cerebrospinal fluid, serum, if post-mortem: brain tissue	Serology, antigen detection, virus isolation	Brain tissue	FAT, RT-PCR
Switzerland	-	RFFIT	-	FAT, RTCIT, RFFIT

**Appendix Table RA3. Notification of rabies in humans (O=Other) and animals, and Official Rabies Free status, 2008**

	Notifiable in humans since	Last indigenous case	Notifiable in animals since	Last case	Rabies status	Since
Austria	1947		1957			
Belgium	<1999	1923	1883	1999	Declared itself free from rabies <sup>1</sup>	2001
Bulgaria	yes		-			
Cyprus	2004	<1976	yes	<1976	Rabies free	
Czech Republic	yes		1999	2002	Declared itself free from rabies <sup>1</sup>	2005
Denmark	1964		1920	1982 (classical rabies)		
Estonia	1946	1987	1950	2008		
Finland	1995		1922	1989	Declared itself free from rabies <sup>1</sup>	1991
France	yes		yes		Declared itself free from rabies <sup>1</sup>	2001
Germany	yes		yes			
Greece	yes	1970	1936	1987	Rabies free	
Hungary	1950		1928			
Ireland	1976		-		Declared itself free from rabies <sup>1</sup>	
Italy	1990	1968	1954	2008	Rabies free	1997
Latvia	1974	2003	yes			
Lithuania	1957		<1975			
Luxembourg	yes		-		Declared itself free from rabies <sup>1</sup>	2003
Malta	yes		-		Rabies free since 1911	
Netherlands	yes		yes (dogs)			
Poland	1919		1927			
Portugal	yes		1953	1961		
Romania	yes		-			
Slovakia	yes	1990	1950	2006		
Slovenia	1949	1950	<1991 <sup>2</sup>	1950		
Spain	1901	1975	1952	1978 <sup>3</sup>	The mainland and islands are considered rabies free	
Sweden	<1975	1886	yes	1886	Rabies free since 1886	
United Kingdom	yes O	1902	yes	1922 <sup>5</sup>	Declared itself free from rabies <sup>1</sup>	
Iceland	yes					
Liechtenstein	yes					
Norway	1975	1815	1965	1999 <sup>4</sup>	Declared itself free from rabies (the mainland) <sup>1</sup>	
Switzerland	1952	1974	1952	1996	Declared itself free from rabies <sup>1</sup>	1998

1. According to the criteria set up by OIE; where a country with no new cases of rabies during a two year period may declare itself free from rabies. The criteria exclude European Bat *Lyssavirus*

2. In Slovenia, the year of independence, however, this disease was notifiable before 1991

3. In Spain, the mainland and islands not Ceuta and Melilla

4. In Norway, in the archipelago of Svalbard



**Appendix Table VT1. Notification of VTEC in humans (V=Voluntary, O=Other), animals and food, 2008**

	<b>Notifiable in humans since</b>	<b>Notifiable in animals since</b>	<b>Notifiable in food since</b>
Austria	1950 <sup>1,2</sup>	no	1975
Belgium	< 1999 V	2005	2004
Bulgaria	yes		
Cyprus	2005 (EHEC)	-	-
Czech Republic	-	no	-
Denmark	2000 + HUS (EHEC)	no	-
Estonia	1958 (EHEC)	2000	2000
Finland	1998	2004 <sup>3</sup>	no <sup>4</sup>
France	1996 (HUS) V	-	- <sup>5</sup>
Germany	yes	-	-
Greece	yes (EHEC)	-	-
Hungary	1998	no	-
Ireland	2004 (EHEC)	-	not notifiable <sup>6</sup>
Italy	1990 V	no	1962
Latvia	1999	yes <sup>7</sup>	2004
Lithuania	2004	>30 years	-
Luxembourg	yes V	no	no
Malta	yes	-	-
Netherlands	yes	no	yes
Poland	2004	-	-
Portugal	-	-	-
Romania	yes		
Slovakia	yes	no	2000
Slovenia	1995	no	2003
Spain	1989 <sup>8</sup> V	1994	1994
Sweden	2004 <sup>9</sup>	1996 <sup>10</sup>	no
United Kingdom	no O	no	no
Iceland	yes		
Liechtenstein	-		
Norway	1995	no <sup>11</sup>	no <sup>11</sup>
Switzerland	1999	no	-

1. In Austria, notifiable since 14 April 1913, re-proclaimed 12 June 1947, adapted on 28 April 1950

2. In Austria, clinical cases notifiable since 1996

3. In Finland, only notifiable in cattle

4. In Finland, food business operator has to notify to the competent authority, but there is no central notification system

5. In France, the food business operators have to notify the competent authority when

6. In Ireland, Reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

7. In Latvia, only clinical cases notifiable

8. In Spain, Microbiological information System

9. In Sweden, VTEC O157 infection have been notifiable since 1996, since 2004 all clinical VTEC have been notifiable

10. In Sweden, infections with VTEC notifiable since 1996. Since 1999 findings of VTEC associated with human cases of EHEC notifiable.

11. Notification required when further transmission to humans is suspected or has occurred

**Appendix Table YE1. Notification on *Yersinia* in humans (V=Voluntary, O=Other), animals and food, 2008**

	Notifiable in humans since	Notifiable in animals since	Notifiable in food since
Austria	1947 <sup>1,2</sup>	no	1975
Belgium	<1999 <sup>3</sup> V	1998	2004
Bulgaria	yes		
Cyprus	2005 <sup>4</sup>	-	-
Czech Republic	yes	no	-
Denmark	1979	no	-
Estonia	1982	no	2000
Finland	1995	no	no <sup>5</sup>
France	yes V	-	-
Germany	yes	-	-
Greece	-	-	-
Hungary	1998	no	-
Ireland	2004	1992	not notifiable <sup>6</sup>
Italy	1990 V	no	1962
Latvia	1988	yes <sup>7</sup>	-
Lithuania	1985	>30 years	-
Luxembourg	yes	no	no
Malta	yes	-	-
Netherlands	-	yes	yes
Romania	yes		
Poland	2004	-	no
Portugal	-	no	-
Slovakia	yes	no	2000
Slovenia	1977	no	2003
Spain	1989 <sup>8</sup> V	1994	1994
Sweden	1996	no	no
United Kingdom	no O	no	no
Iceland	-		
Liechtenstein	yes		
Norway	1992	no	no
Switzerland	yes	1966	-

1. In Austria, notifiable since 14 April 1913, re-proclaimed 12 June 1947, adapted on 28 April 1950

2. In Austria, clinical cases notifiable since 1996

3. In Belgium, in the Flemish Community

4. In Cyprus, notifiable since January 2005

5. In Finland, food business operator has to notify to the competent authority, but there is no central notification system

6. In Ireland, Reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

7. In Latvia, only clinical cases are notifiable

8. In Spain, Microbiological Information System

**Appendix Table TR1. Diagnostic methods and monitoring programmes for *Trichinella*, 2008**

	<b>Humans</b>	<b>Animals</b>	<b>Animals - monitoring programmes</b>	
	<b>Diagnostic methods</b>	<b>Diagnostic methods</b>	<b>Meat inspection at slaughter</b>	<b>Other monitoring</b>
Austria	Serology (ELISA ), Western Blot	Regulation (EC) No 2075/2005	Pigs, horses, farmed wild boars	Wild boars: monitoring scheme
Belgium	Serology (ELISA), histopathology	Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Other wildlife monitored when relevant
Bulgaria		Compression method	Pigs, horses, wild boars, bears, badgers	-
Cyprus	EU recommendations	Directive 77/96/EC (digestion method)	Pigs (started in 2004, 80% examined)	-
Czech Republic	-	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Other wildlife monitored when relevant
Denmark	Serology, histopathology	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs and horses slaughtered at export approved slaughterhouses, all wild boars	-
Estonia	Clinical symptoms, eosinophilia	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Other wildlife monitored when relevant
Finland	Serology, histopathology	Regulation (EC) No 2075/2005	Pigs, horses, wild boars, bears	Continuous wildlife monitoring programme covering foxes, raccoon dogs, mustelids, lynxes and wolves
France	Serology, histopathology	Digestion method	Pigs, horses	Wild boars: sampling are carried out as a survey
Germany	Serology (ELISA), histopathology	Directive 77/96/EC (digestion or compression method) and PCR	Pigs, horses, wild boars	Other wildlife monitored when relevant
Greece	-	Directive 77/96/EC (digestion or compression method)	Pigs	-
Hungary	Serology (ELISA ), histopathology, Western Blot	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Other wildlife monitored when relevant
Ireland	-	Pepsin digest method according to Regulation (EC) No 2075/2006	Pigs, horses, farmed wild boars	Wildlife monitoring programme covering foxes, badgers and rodents
Italy	-	Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Wildlife monitoring programme covering foxes, mustelids and other carnivores including birds of prey
Latvia	Serology (ELISA)	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Slaughtering at home is allowed only for personal consumption. In this case the owner is responsible for ensuring control
Lithuania	Serology, (ELISA)	-	-	-
Luxembourg	-	Regulation (EC) No 2075/2005 (digestion method)	Pigs, horses, wild boars	
Malta	-	Compression method	Horses	Pigs: random on the slaughter line
Netherlands	-	Directive 77/96/EC (digestion method)	Pigs, horses	
Poland	Serology and histopathology	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	-
Portugal	-	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Priority: wild boar, breeding pigs and pigs not raised under controlled housing condition
Romania	Serology, (ELISA)	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	-
Slovakia	Serology, histopathology	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Other wildlife monitored when relevant
Slovenia	Serology, histopathology	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Other wildlife monitored when relevant. Testing of pigs slaughtered on the holding of origin for private domestic consumption is not mandatory
Spain	Decision no. 2002/253/EC - serology, histopathology	Pepsin digest and compression method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars	Home slaughtering. Other wildlife monitored when relevant
Sweden	Serology (ELISA/IFL)	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, wild boars, bears	Survey of approx. 300 foxes annually, other wildlife monitored when relevant
United Kingdom	Histopathology	Pepsin digest method according to Regulation (EC) No 2075/2005	Pigs, horses, farmed wild boars	Foxes, approximately 400-700 annually
Norway	Serology and histopathology	Directive 77/96/EC (digestion or compression method)	Pigs, horses, wild boars, bears	Wildlife and farmed foxes occasionally
Switzerland	-	Directive 77/96/EC (digestion method)	Pigs, horses, wild boars	Survey of foxes in 2006-2007, other wildlife monitored when relevant

**Appendix Table TR2. Notification of *Trichinella* in humans (V=Voluntary), animals and food, 2008**

	<b>Notifiable in humans since</b>	<b>Notifiable in animals since</b>		<b>Notifiable in food since</b>
Austria	1950	1994	Pigs, horses, wild boars,	1994
Belgium	<1999 <sup>1</sup> V	1998	-	2004
Bulgaria	yes			
Cyprus	2005	yes	Pigs	-
Czech Republic	yes	yes	Pigs, horses, wild boars, other wildlife	-
Denmark	-	1920 <sup>2</sup>	Pigs, horses, wild boars	-
Estonia	1945	2000	Pig, horses, wild boars, other wildlife	2000
Finland	1995	1930	Pigs, horses, farmed and wild game	1930
France	2000 V	-	Pig, horses, wild boars	<1990
Germany	yes	yes	Pig, horses, wild boars, other wildlife	-
Greece	yes	1980	Pigs	1977
Hungary	1960	no	Pigs, horses, nutria, wild boars	1984
Ireland	2004	yes	Pigs, horses, wild boars, other wildlife	not notifiable <sup>3</sup>
Italy	1990	1958 (pigs), 1994 (horses)	Pigs, horses, wild boars	1958
Latvia	1988	yes	Pigs, horses, wild boars	-
Lithuania	1990	>30 years	-	-
Luxembourg	yes	1947	Pigs, horses, wild boar,	-
Malta	yes	-	Pigs (random), horses	-
Netherlands	yes	yes	Pigs, horses, wild boars	-
Poland	1919	1928	Pigs, horses, wild boars	-
Portugal	yes	1953	Pigs	yes
Romania	yes			
Slovakia	yes	yes	All animals for human consumption	2000
Slovenia	1977	1991	Pigs, horses, wild boars, bears	2003
Spain	1982	1952	Pigs, wild boars	1952
Sweden	> 30 years	>50 years	Pigs, horses, wild boars, bears	>50 years
United Kingdom	yes V	1980	Pigs, horses	yes
Iceland	-			
Liechtenstein	yes			
Norway	1975	1965	Pigs, horses, wild boars, bears	1965
Switzerland	no	1966	Pigs, horses	no

1. In Belgium, the Flemish Community

2. In Denmark, only clinical cases are notifiable

3. In Ireland, reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

Note: Directive 64/433/EC and/or Directive 77/96/EC were no longer in force in 2006. Replaced by Regulation (EC) No 2075/2005

Appendix Table EH1. *Echinococcus* monitoring programmes and diagnostic methods in humans and/or animals, 2008

Country	Type of data	Diagnostic methods	Monitoring, treatment etc.
Austria	Laboratory confirmed	Humans: ELISA, Western blot. Animals: Histopathology, ultrasound, X-ray, computed tomography, serology or combo serology DNA (PCR)	Foxes tested on request
Belgium	Laboratory confirmed	Humans: <i>E. granulosus</i> : ELISA and IHA, <i>E. multilocularis</i> ELISA Animals: visual examination of organs, microscopic examination of mucosal scrapings of the gut	Information campaign in wooded areas about consumption of berries
Bulgaria	-	-	Scheme to treat dogs and stray dogs with Pranziquantel
Cyprus	-	-	-
Czech Republic	-	-	A monitoring programme for <i>Echinococcus</i> in foxes was introduced in 2005. Samples are taken from foxes hunted for control of vaccination efficiency against Rabies.
Denmark	Laboratory confirmed	Humans: Abdominal CT Scan, serology, histopathology Histopathology, serology	-
Estonia	Laboratory confirmed	Humans: Serology, histopathology.	Treatment required for dogs and cats
Finland	Laboratory confirmed	Animals: copro-ELISA, copro-PCR, PCR, visual examination of organs	imported for countries other than Sweden, Norway (other parts than Spitsbergen), United Kingdom and Ireland and animals less than three months old entering from MS, recommended for hunting dogs before and after hunting season. Continuous surveillance for <i>Echinococcus</i> in foxes and raccoon dogs.
France	Voluntary reporting	animal: Faeces --> Flotation and PCR, Intestines --> Scraping and sedimentation Humans : ELISA, Western blot, histopathology, X-ray	A survey on <i>Echinococcus multilocularis</i> in foxes. Faecal samples analysis.
Germany	-	-	-
Greece	-	Humans: X-ray, echo and serological investigation	-
Hungary	Laboratory confirmed	Western blot	-
Ireland	-	-	-
Italy	-	-	-
Latvia	Laboratory confirmed/monthly	Serology	Macroscopic investigation on hydatid cysts at the abattoir is a part of the meat inspection procedure. Treatment with anti-helminthic drugs is recommended in the final hosts - dogs and cats.
Lithuania	Laboratory confirmed	Serology (ELISA and Western blot), Histopathology, imaging	-
Luxembourg	Laboratory confirmed	Foxes: Microscopical diagnostic and PCR in feces Other animals: Inspection at slaughterhouse	Foxes tested on request
Malta	-	-	-
Netherlands	Laboratory confirmed	Serology	-
Poland	Laboratory confirmed	Serology (ELISA and Western blot) and histopathology	-
Portugal	-	-	3 regions have a programme running where dogs are dewormed
Romania	-	-	-
Slovakia	Laboratory confirmed	Humans: Serology and histopathology	-

Slovenia	Laboratory confirmed	Humans: Serology, Rtg, CT Scan, MRI	Visual examination of the slaughtered/killed animal and its organs, and palpation of the liver. Systematic dehelminthisation of dogs along with anti-rabies vaccination.
Spain	Laboratory confirmed, passive case finding	According to Decision 2119/98/EC, Decision 2002/253/EC and Decision 2002/243/EC	Control infection in animals and meat inspection
Sweden	Laboratory confirmed, passive case finding	Humans: Copro-ELISA, copro-PCR, PCT, visual examination of organs.	Since 2001, an annual investigation of 300-400 foxes. Anthelmintic treatment required for dogs imported from countries other than Finland and Norway
United Kingdom	Voluntary reporting	-	Treatment for imported dogs and cats. Regional deworming programme. Abattoir testing
Norway	Laboratory confirmed	Humans: Serology, Histopathology. Animals: PCR, egg detection, histopathology	Anthelmintic treatment required for dogs imported from countries other than Finland and Sweden. Mandatory meat inspection for hydatid cysts, survey of <i>E. multilocularis</i> in foxes.
Switzerland	-	-	-

**Appendix Table EH2. Notification of *Echinococcus* in humans (V=Voluntary), animals and food, 2008**

	Notifiable in humans since	Notifiable in animals since	Notifiable in food since
Austria	2004	1994	1994
Belgium	< 1999 V	1998	2004
Bulgaria	yes	-	-
Cyprus	1969	-	-
Czech Republic	yes	no	-
Denmark	-	yes	-
Estonia	1986	2000	2000
Finland	1995	1995 <sup>1</sup>	1995 <sup>1</sup>
France	yes V	no	-
Germany	yes	-	-
Greece	yes	1980	-
Hungary	1960	no	1984
Ireland	2004	-	not notifiable <sup>2</sup>
Italy	-	yes	1964
Latvia	1999	yes	-
Lithuania	1990	yes	-
Luxemburg	yes	no	-
Malta	yes	-	-
Netherlands	no	yes	yes
Poland	1959/1997 <sup>3</sup>	-	-
Portugal	yes	yes	-
Romania	yes	-	-
Slovakia	yes	yes <sup>4</sup>	no
Slovenia	1977	1991 <sup>5</sup>	2003
Spain	1982	1994	1994
Sweden	2004	>30 years	>30 years
United Kingdom	yes V	no	no
Iceland	-	-	-
Liechtenstein	yes	-	-
Norway	2003	1985	1965 <sup>6</sup>
Switzerland	no	1966	-

1. In Finland, notifiable also before 1995, but legislation changed in 1995

2. In Ireland, Reportable by FBO to competent authority under SI 154/2004 - European Communities (Monitoring of Zoonoses) Regulations 2004

3. In Poland, from 1959 registered together with other tapeworms, from 1997 reported separately

4. In Slovakia, only clinical cases

5. In Slovenia, the year of independence, however this disease was notifiable before 1991

6. Mandatory meat inspection for hydatid cysts.

**Appendix Table PO1. Human population (x100), 2006-2008**

	2008	2007	2006
Austria	83,319	82,989	82,659
Belgium	106,669	105,845	105,114
Bulgaria	76,402	76,793	77,188
Cyprus	7,946	7,787	7,664
Czech Republic	103,811	102,872	102,511
Denmark	54,758	54,471	54,275
Estonia	13,409	13,424	13,447
Finland	53,005	52,770	52,556
France	637,531	633,921	629,988
Germany	822,218	823,149	824,380
Greece	112,150	111,717	111,252
Hungary	100,450	100,662	100,766
Ireland	44,199	43,125	42,090
Italy	596,181	591,313	587,517
Latvia	22,709	22,813	22,946
Lithuania	33,664	33,849	34,033
Luxembourg	4,838	4,762	4,691
Malta	4,106	4,078	4,050
Netherlands	164,043	163,580	163,342
Poland	381,156	381,255	381,571
Portugal	106,176	105,991	105,696
Romania	215,286	215,651	216,102
Slovakia	54,010	53,936	53,892
Slovenia	20,259	20,104	20,034
Spain	452,833	444,746	437,583
Sweden	91,829	91,133	90,478
United Kingdom	611,860	608,167	603,931
<b>EU total</b>	<b>4,974,817</b>	<b>4,950,903</b>	<b>4,929,752</b>
Norway	47,372	46,811	46,402
Switzerland	75,914	75,087	74,591

Reference: Eurostat