



IRELAND

The Report referred to in Article 9 of Directive 2003/99/EC

TRENDS AND SOURCES OF ZOONOSES AND ZOOBOTIC AGENTS IN HUMANS, FOODSTUFFS, ANIMALS AND FEEDINGSTUFFS

including information on foodborne outbreaks and
antimicrobial resistance in zoonotic agents

IN 2005

INFORMATION ON THE REPORTING AND MONITORING SYSTEM

Country: **Ireland**

Reporting Year: **2005**

Institutions and laboratories involved in reporting and monitoring:

Laboratory name	Description	Contribution
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PREFACE

This report is submitted to the European Commission in accordance with Article 9 of Council Directive 2003/99/EC¹. The information has also been forwarded to the European Food Safety Authority (EFSA).

The report contains information on trends and sources of zoonoses and zoonotic agents in Ireland during the year 2005. The information covers the occurrence of these diseases and agents in humans, animals, foodstuffs and in some cases also in feedingstuffs. In addition the report includes data on antimicrobial resistance in some zoonotic agents and commensal bacteria as well as information on epidemiological investigations of foodborne outbreaks. Complementary data on susceptible animal populations in the country is also given.

The information given covers both zoonoses that are important for the public health in the whole European Community as well as zoonoses, which are relevant on the basis of the national epidemiological situation.

The report describes the monitoring systems in place and the prevention and control strategies applied in the country. For some zoonoses this monitoring is based on legal requirements laid down by the Community Legislation, while for the other zoonoses national approaches are applied.

The report presents the results of the examinations carried out in the reporting year. A national evaluation of the epidemiological situation, with special reference to trends and sources of zoonotic infections, is given. Whenever possible, the relevance of findings in foodstuffs and animals to zoonoses cases in humans is evaluated.

The information covered by this report is used in the annual Community Summary Report on zoonoses that is published each year by EFSA.

¹ Directive 2003/99/EC of the European Parliament and of the Council of 12 December 2003 on the monitoring of zoonoses and zoonotic agents, amending Decision 90/424/EEC and repealing Council Directive 92/117/EEC, OJ L 325, 17.11.2003, p. 31

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1. ANIMAL POPULATIONS

The relevance of the findings on zoonoses and zoonotic agents has to be related to the size and nature of the animal population in the country.

2. INFORMATION ON SPECIFIC ZONOSSES AND ZOONOTIC AGENTS

Zoonoses are diseases or infections, which are naturally transmissible directly or indirectly between animals and humans. Foodstuffs serve often as vehicles of zoonotic infections. Zoonotic agents cover viruses, bacteria, fungi, parasites or other biological entities that are likely to cause zoonoses.

2.1. SALMONELLOSIS

2.1.1. General evaluation of the national situation

2.1.2. Salmonella in foodstuffs

Table Salmonella in poultry meat and products thereof (Part A)

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Agona	S. Kentucky	S. Mbandaka	S. Bredeney	S. Brandenburg	S. Infantis	S. Virchow	S. Thompson	S. Blockley	S. Indiana	S. Hadar	S. Schwarzengrund
Meat from broilers (Gallus gallus)	CMCL	Single	25g	8	0															
	DAFF/SAI	Single	Varies	414	26	14	4	1		1				2	3	1				
	CVRL	Not Stated	Not Stated	5527	97	1	24	72												
	OFML	Single	25g	2	1						1									
meat products																				
	CMCL	Single	25g	61	1										1					
	CVRL	Not Stated	Not Stated	1309	34		3	31												
	OFML	Single	25g	3	0															
raw but intended to be eaten cooked																				
- at processing plant - Surveillance (1)																				
- at processing plant - Surveillance (2)																				
- at retail - Surveillance																				

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Footnote

NOTES The sample weight for samples analysed at OFMLs and CMCL is usually 25g. No sample weight provided for the data submitted from the CVRL. The sample weight for poultry meat samples taken under the DAF/FSAI enhanced poultry monitoring programme varies. A carcass wash of the whole sample (e.g. chicken or breast) less 35g was used for analysis.

Table Salmonella in poultry meat and products thereof (Part B)

	S. Bareilly	S. Livingstone	
Meat from broilers (Gallus gallus)			
fresh			
- at processing plant - Surveillance (1)			
- at processing plant - Monitoring			
- at processing plant - Surveillance (2)			
- at retail - Surveillance			
meat products			
raw but intended to be eaten cooked			
- at processing plant - Surveillance (1)			
- at processing plant - Surveillance (2)			
- at retail - Surveillance			
cooked, ready-to-eat			
- at processing plant - Surveillance (1)			
- at retail - Surveillance			
- at processing plant - Surveillance (2)			
carcass			

- at processing plant - Monitoring		
- at processing plant - Monitoring (Broiler meat not stated)		
Meat from turkey		
fresh		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
- at processing plant - Monitoring		
meat products		
raw but intended to be eaten cooked		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
cooked, ready-to-eat		
- at processing plant - Surveillance (1)		
- at retail - Surveillance		
- at processing plant - Surveillance (2)		
carcass		
- at processing plant - Monitoring		
Meat from duck		
fresh		
- at processing plant - Surveillance		

- at processing plant - Monitoring (Duck meat not stated)		
meat products		
raw but intended to be eaten cooked		
- at processing plant - Surveillance		
cooked, ready-to-eat		
- at retail - Surveillance		
- at processing plant - Surveillance		
Meat from geese		
meat products		
cooked, ready-to-eat		
- at retail - Surveillance		
Meat from poultry, unspecified		
carcass		
- at processing plant - Monitoring		1
fresh		
- at processing plant - Surveillance		
meat products		
raw but intended to be eaten cooked		
- at processing plant - Surveillance		
cooked, ready-to-eat		
- at retail - Surveillance		
- at processing plant - Surveillance		

- at processing plant - Monitoring (Poultry meat unspecified not stated)	2
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Footnote

NOTES The sample weight for samples analysed at OFMLs and CMCL is usually 25g. No sample weight provided for the data submitted from the CVRL. The sample weight for poultry meat samples taken under the DAF/FSAI enhanced poultry monitoring programme varies. A carcass wash of the whole sample (e.g. chicken or breast) less 35g was used for analysis.

Table Salmonella spp. in milk and dairy products (Part A)

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Thompson	S. Bredeney	S. Virchow	S. Agona	S. Indiana	S. Mbandaka	S. Hadar	S. Bareilly	S. Infantis	S. Schwarzengrund	S. Blockley	S. Kentucky
Milk, cows'	OFML	Single	25g	40	0															
pasteurised milk - at retail - Surveillance																				
Cheeses made from cows' milk																				
unspecified - at retail - Surveillance																				
Cheeses made from goats' milk																				
soft and semi-soft - at retail - Surveillance																				
unspecified - at retail - Surveillance																				
Cheeses made from sheep's milk																				
unspecified - at retail - Surveillance																				

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Footnote

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Table *Salmonella* spp. in milk and dairy products (Part B)

	S. Livingstone	S. Brandenburg	
Milk, cows'			
pasteurised milk			
- at retail - Surveillance			
Cheeses made from cows' milk			
unspecified			
- at retail - Surveillance			
Cheeses made from goats' milk			
soft and semi-soft			
- at retail - Surveillance			
unspecified			
- at retail - Surveillance			
Cheeses made from sheep's milk			
unspecified			
- at retail - Surveillance			
Dairy products (excluding cheeses) butter			
- at processing plant - Surveillance (1)			

- at processing plant - Surveillance (2)		
- at retail - Surveillance		
cream		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
- at retail - Surveillance		
milk powder and whey powder		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
- at processing plant - Surveillance (3)		
- at processing plant - Surveillance (4)		
- at processing plant - Surveillance (5)		
- at processing plant - Surveillance (6)		
ice-cream		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
- at processing plant - Surveillance (3)		
- at processing plant - Surveillance (4)		

- at retail - Surveillance		
dairy desserts		
- at processing plant - Surveillance		
- at retail - Surveillance		
dairy products, not specified		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
- at processing plant - Surveillance (3)		
- at retail - Surveillance		
Milk from other animal species or unspecified raw		
- at processing plant - Surveillance		
pasteurised		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
UHT milk		
- at processing plant - Surveillance		
Cheeses, made from unspecified milk or other animal milk hard		
- at processing plant - Surveillance (1)		

- at processing plant - Surveillance (2)		
soft and semi-soft		
- at processing plant - Surveillance (1)		
- at retail - Surveillance		
- at processing plant - Surveillance (2)		
unspecified		
- at processing plant - Surveillance (1)		
- at processing plant - Surveillance (2)		
- at retail - Surveillance		

Footnote

The sample weight for samples analysed at OFMLs and DSL is usually 25g. No sample weight provided for the data submitted from the CVRL.

Table Salmonella in red meat and products thereof

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Bredeney
Meat from pig									
fresh									
- at processing plant - Surveillance (1)	CMCL	Single	25g	38	7		6		1
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	2803	44		16	28	
minced meat									
intended to be eaten cooked									
- at processing plant - Surveillance	CMCL	Single	25g	2	0				
meat products									
raw but intended to be eaten cooked									
- at processing plant - Surveillance (1)	CMCL	Single	25g	123	1		1		
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	3159	37		19	18	
- at retail - Surveillance	OFML	Single	25g	5	0				
cooked, ready-to-eat									
- at processing plant - Surveillance (1)	CMCL	Single	25g	165	0				
- at retail - Surveillance	OFML	Single	25g	1848	0				
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	4529	1		1		
Meat from bovine animals									
fresh									
- at processing plant - Surveillance (1)	CMCL	Single	25g	31	0				
- at retail - Surveillance	OFML	Single	25g	3	0				
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	21168	35		19	16	
minced meat									
intended to be eaten cooked									
- at processing plant - Surveillance	CMCL	Single	25g	18	0				

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- at retail - Surveillance	OFML	Single	25g	1	0				
meat products									
raw but intended to be eaten cooked									
- at processing plant - Surveillance (1)	CMCL	Single	25g	99	0				
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	5809	5		5		
- at retail - Surveillance	OFML	Single	25g	2	0				
cooked, ready-to-eat									
- at processing plant - Surveillance (1)	CMCL	Single	25g	145	0				
- at retail - Surveillance	OFML	Single	25g	395	0				
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	638	0				
Meat from sheep									
fresh									
- at processing plant - Surveillance (1)	CMCL	Single	25g	13	0				
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	1872	12	4	8		
minced meat									
- at processing plant - Surveillance	CMCL	Single	25g	3	0				
meat products									
cooked, ready-to-eat									
- at processing plant - Surveillance (1)	CMCL	Single	25g	5	0				
- at retail - Surveillance	OFML	Single	25g	44	0				
- at processing plant - Surveillance (2)	CVRL	Not Stated	Not Stated	30	0				
raw but intended to be eaten cooked									
- at retail - Surveillance	OFML	Single	25g	2	0				
- at processing plant - Surveillance	CVRL	Not Stated	Not Stated	901	1	1			
offal									
- at processing plant - Surveillance	CMCL	Single	25g	2	0				
Other products of animal origin									
- at processing plant - Surveillance	CVRL	Not Stated	Not Stated	775	0				
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos)									
meat products									
raw but intended to be eaten cooked									
- at processing plant - Surveillance	CMCL	Single	25g	5	0				
cooked, ready-to-eat									

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- at processing plant - Surveillance	CMCL	Single	25g	8	0				
Meat from other animal species or not specified									
fresh									
- at processing plant - Surveillance	CVRL	Not Stated	Not Stated	1504	20		8	12	
minced meat									
intended to be eaten cooked									
- at retail - Surveillance	OFML	Single	25g	5	0				
meat products									
raw but intended to be eaten cooked									
- at retail - Surveillance	OFML	Single	25g	4	0				
- at processing plant - Surveillance	CVRL	Not Stated	Not Stated	876	2		2		
cooked, ready-to-eat									
- at retail - Surveillance	OFML	Single	25g	416	0				
- at processing plant - Surveillance	CVRL	Not Stated	Not Stated	2147	0				
- at processing plant - Surveillance (meat unclassified)	CMCL	Single	25g	210	2		2		
Meat, mixed meat									
meat products									
raw but intended to be eaten cooked									
- at processing plant - Surveillance	CMCL	Single	25g	2	0				
cooked, ready-to-eat									
- at processing plant - Surveillance	CMCL	Single	25g	11	0				

Footnote

The sample weight for samples analysed at OFMLs and CMCL is usually 25g. No sample weight was provided for the data submitted from the CVRL.

Table *Salmonella* spp. in other food

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i>	<i>S. Enteritidis</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified	<i>S. Stanley</i>	<i>S. Fanti</i>	<i>S. Agona</i>	<i>S. Menston</i>	<i>S. Regent</i>	<i>S. Fresno</i>
Eggs														
	table eggs													
	- at retail - Surveillance	Single	25g	168	0									
Egg products	raw material (liquid egg) for egg products													
	- at processing plant - Surveillance	Single	Not Stated	215	0									
Crustaceans														
	- at processing plant - Surveillance (unspecified)	Single	Not Stated	53	0									
unspecified														
	- at processing plant - Surveillance	Single	25g	16	0									
	- at retail - Surveillance	Single	25g	6	0									
prawns														

[illegible]

[illegible]

[illegible]

Water													
potable water		CVRL	Single	Not Stated	752	0							
- at processing plant - Surveillance													
Fruits													
pre-cut		OFML	Single	25g	27	0							
- at retail - Surveillance													
products		OFML	Single	25g	24	0							
- at retail - Surveillance													
- at retail - Surveillance (fruit unspecified)		OFML	Single	25g	17	0							
Mushrooms													
- at retail - Surveillance		OFML	Single	25g	7	1					1		
Nuts and nut products													
salted		OFML	Single	25g	3	0							
- at retail - Surveillance													
- at retail - Surveillance (unspecified)		OFML	Single	25g	31	1						1	
Fishery products, unspecified													
cooked		OFML	Single	25g	23	0							
- at retail - Surveillance													
raw		OFML	Single	25g	5	0							
- at retail - Surveillance													
ready-to-eat		OFML	Single	25g	384	0							
- at retail - Surveillance													
- at processing plant - Surveillance		DCMNR	Single	25g	6	0							
Sauce and dressings													
- at retail - Surveillance		OFML	Single	25g	303	0							

Soups											
frozen	- at retail - Surveillance	OFML	Single	25g	1	0					
	ready-to-eat										
ready-to-eat	- at retail - Surveillance	OFML	Single	25g	131	0					
Spices and herbs											
dried	- at retail - Surveillance	OFML	Single	25g	4	0					
	- at retail - Surveillance (unspecified)	OFML	Single	25g	13	0					
Sweets											
- at retail - Surveillance		OFML	Single	25g	1	0					
Vegetables											
non-precut	- at retail - Surveillance	OFML	Single	25g	1	0					
pre-cut											
- at retail - Surveillance		OFML	Single	25g	48	0					
products											
- at retail - Surveillance		OFML	Single	25g	73	1					1
- at retail - Surveillance (unspecified)		OFML	Single	25g	88	0					
Other food											
- at processing plant - Surveillance (unspecified)		CVRL	Single	Not Stated	3595	3					
- at retail - Surveillance (unspecified)		OFML	Single	25g	3	0					

(1) : S. Fresno and S.Fanti were identified in the same sampling unit.

Footnote

The sample weight for samples analysed at OFMLs and DCMNR is usually 25g. No sample weight provided for the data submitted from the CVRL.

2.1.3. Salmonella in animals

Table Salmonella in breeding flocks of Gallus gallus

	Source of information	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Gallus gallus (fowl)							
elite breeding flocks for egg production line			0				
grandparent breeding flocks for egg production line			0				
parent breeding flocks for egg production line							
day-old chicks			0				
during rearing period			0				
during production period	DAF	fluff	30	0	0	0	0
elite breeding flocks for meat production line (1)			0				
grandparent breeding flocks for meat production line			0				
parent breeding flocks for meat production line							
day-old chicks			0				
during rearing period			0				
during production period	DAF	fluff	522	60	0	0	60
elite breeding flocks, unspecified			0				
grandparent breeding flocks, unspecified			0				
parent breeding flocks, unspecified			0				
day-old chicks			0				
during rearing period			0				
during production period			0				

(1) : Department of Agriculture and Food Official Salmonella Monitoring Plan

Footnote

Table Salmonella in other poultry

	Source of information	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Gallus gallus (fowl)							
laying hens							
day-old chicks			0				
during rearing period			0				
during production period (1)	DAF	DUST	217	6	3	0	3
broilers			0				
day-old chicks			0				
during rearing period			0				
unspecified			0				
day-old chicks			0				
during rearing period			0				
during production period			0				
Ducks							
breeding flocks (2)	DAF	FLUFF	22	9	0	0	
meat production flocks			0				
Geese			0				
breeding flocks			0				
meat production flocks			0				
Turkeys							
breeding flocks (3)	DAF	Fluff	106	3	0	0	3

(1) : Official Department of Agriculture and Food Salmonella Monitoring Plan

(2) : Official Department of Agriculture and Food Salmonella Monitoring Plan

(3) : Official Department of Agriculture and Food Salmonella Monitoring Plan

2.1.4. Salmonella in feedingstuffs**Table Salmonella in feed material of animal origin**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Feed material of land animal origin								
dairy products				0				
meat meal				0				
meat and bone meal				0				
bone meal				0				
greaves				0				
poultry offal meal				0				
feather meal				0				
blood meal				0				
animal fat				0				
Feed material of marine animal origin								
fish meal	Department of Agriculture and Food Official Monitoring Plan		0.5 kg	3	0			
fish oil				0				
fish silage				0				
other fish products				0				

Table Salmonella in other feed matter

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Typhimurium	S. Enteritidis	Salmonella spp., unspecified
Feed material of cereal grain origin								
barley derived	Department of Agriculture and Food		0.5 kg	8	0			
wheat derived	Department of Agriculture and Food		0.5kg	31	1	0	0	
maize derived	Department of Agriculture and Food		0.5 kg	6	0			
	Department of Agriculture and Food		0.5kg	30	0			
other cereal grain derived	Department of Agriculture and Food		0.5kg	3	0			
Feed material of oil seed or fruit origin								
groundnut derived	Department of Agriculture and Food		0.5kg	0	0			
rape seed derived	Department of Agriculture and Food		0.5kg	20	1	0	0	
palm kernel derived	Department of Agriculture and Food		0.5kg	4	0			
soya (bean) derived	Department of Agriculture and Food		0.5kg	24	0			
cotton seed derived	Department of Agriculture and Food		0.5kg	3	0			
sunflower seed derived	Department of Agriculture and Food		0.5kg	7	0			

linseed derived	Department of Agriculture and Food			0				
other oil seeds derived	Department of Agriculture and Food			0				
Other feed material								
legume seeds and similar products	Department of Agriculture and Food		0.5 kg	2	0			
tubers, roots and similar products	Department of Agriculture and Food		0.5kg	6	1			
other seeds and fruits	Department of Agriculture and Food		0.5kg	10	0			
forages and roughages	Department of Agriculture and Food		0.5kg	5	0			
other plants	Department of Agriculture and Food			0	0			

Footnote

1. 1 Wheat derived sample positive for S. Schwarzengrund
2. 1 Rape seed derived sample positive for S.Mbandaka
3. 1 tubers,roots etc sample positive for S.Reading

Table Salmonella in compound feedingstuffs

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Typhimurium	S. Enteritidis	Salmonella spp., unspecified
Compound feedingstuffs for cattle								
process control				0				
final product	Department of Agriculture and Food Official Monitoring Plan		0.5 kg	65	0	0	0	0
Compound feedingstuffs for pigs								
process control				0				
final product	Department of Agriculture and Food Official Monitoring Plan		0.5kg	22	1	0	0	
Compound feedingstuffs for poultry (non specified)								
process control				0				
final product	Department of Agriculture and Food Official Monitoring Plan		0.5 kg	2	0	0		
Compound feedingstuffs for poultry -breeders								
final product				0	0	0		
Compound feedingstuffs for poultry - laying hens								
process control				0				
final product	Department of Agriculture and Food Official Monitoring Plan		0.5kg	10	0			
Compound feedingstuffs for poultry - broilers								

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process control				0				
final product	Department of Agriculture and Food Official Monitoring Plan		0.5kg	10	0			
Pet food								
dog snacks (pig ears, chewing bones)				0				

Footnote

1 compound feedingstuffs for pigs final product was positive for S.Kentucky

2.1.5. Salmonella serovars and phagetype distribution

Table Salmonella serovars in food

Serovars	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin		Meat from sheep		Meat from other animal species or not specified		Meat from turkey		Meat from duck		Meat from poultry, unspecified		Other food	
	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)
	Sources of isolates																					
Number of isolates in the laboratory	N=	40			90	204					13		24		18		22		10		8	
Number of isolates serotyped	N=	19			44	96					5		12		8		21		8		4	
Number of isolates per type																						
S. Agona						5													1		1	
S. Bareilly																			1			
S. Blockley															1							
S. Brandenburg																	10					
S. Bredeney			1			3											4					
S. Enteritidis						21													4			
S. Hadar															1							
S. Indiana															5							
S. Infantis						2											5					

[illegible]

Footnote

(*) M : Monitoring, C : Clinical

Table S. Enteritidis phagetypes in food

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin		Meat from poultry, unspecified	
	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)
	Sources of isolates											
Number of isolates in the laboratory	N=				21						4	
Number of isolates phagetyped	N=				1						0	
Number of isolates per type												
PT 6a						1						
Total of typed <i>Salmonella</i> isolates												

Footnote

(*) M : Monitoring, C : Clinical

Table Salmonella Typhimurium Phagetypes in food

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin		Meat from turkey		Meat from sheep		Meat from other animal species or not specified	
	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)	M(*)	C(*)
	Sources of isolates		Sources of isolates		Sources of isolates		Sources of isolates		Sources of isolates		Sources of isolates		Sources of isolates		Sources of isolates	
Number of isolates in the laboratory	N=	19	43	32	28						1	5		12		
Number of isolates phagetyped	N=	12	22	28							0	1		8		
Number of isolates per type																
DT 7			2													
DT 12			1													
DT 104	1		6	26										3		
DT 104b	8		3	2								1		5		
DT 120			1													
DT 193			3													
DT 208	1															
U 302	1		1													
DT 193a			1													

[illegible]

Footnote

(*) M : Monitoring, C : Clinical

2.1.6. Antimicrobial resistance in Salmonella isolates

The methods of collecting, isolating and testing of the Salmonella isolates are described in the chapters above respectively for each animal species, foodstuffs and humans. The serotype and phagetype distributions can be used to investigate the sources of the Salmonella infections in humans. Findings of same serovars and phagetypes in human cases and in foodstuffs or animals may indicate that the food category or animal species in question serves as a source of human infections. However as information is not available from all potential sources of infections, conclusions have to be drawn with caution.

2.2. CAMPYLOBACTERIOSIS

2.2.1. General evaluation of the national situation

2.2.2. Campylobacter, thermophilic in foodstuffs

Table Campylobacter in poultry meat

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for thermophilic Campylobacter spp.	C. coli	C. lari	C. jejuni	C. upsaliensis	thermophilic Campylobacter spp., unspecified
Meat from broilers (Gallus gallus)										
fresh										
- at retail - Surveillance	OFML	Single	25g	1	1					1
- at processing plant - Monitoring	DAF/FSAI	Single	25g	205	10					10
meat products										
raw but intended to be eaten cooked										
- at retail - Surveillance	OFML	Single	25g	3	0					
- at processing plant - Surveillance	CMCL	Single	25g	3	2					2
cooked, ready-to-eat										
- at processing plant - Surveillance	CMCL	Single	25g	2	0					
- at retail - Surveillance	OFML	Single	25g	608	0					
carcass										
- at processing plant - Monitoring	DAF/FSAI	Single	25g	649	429					429
- at processing plant - Monitoring (Broiler meat not stated)	DAF/FSAI	Single	25g	5	1					1
Meat from turkey										

fresh - at processing plant - Monitoring	DAF/FSAI	Single	25g	89	27					27
meat products raw but intended to be eaten cooked - at processing plant - Surveillance cooked, ready-to-eat - at retail - Surveillance										
	CMCL	Single	25g	1	0					
	OFML	Single	25g	139	0					
carcass - at processing plant - Monitoring										
	DAF/FSAI	Single	25g	9	1					1
Meat from duck										
- at processing plant - Monitoring (Duck meat not stated)	DAF/FSAI	Single	25g	8	3					3
meat products cooked, ready-to-eat - at retail - Surveillance										
	OFML	Single	25g	15	0					
Meat from poultry, unspecified										
carcass - at processing plant - Monitoring										
	DAF/FSAI	Single	25g	12	1					1
meat products raw but intended to be eaten cooked - at processing plant - Surveillance cooked, ready-to-eat - at processing plant - Surveillance - at retail - Surveillance										
	CMCL	Single	25g	2	1					1
	CMCL	Single	25g	3	0					
	OFML	Single	25g	1	0					
- at processing plant - Monitoring (Meat from poultry unspecified not stated)	DAF/FSAI	Single	25g	41	14					14

Footnote

NOTES The sample weight for samples analysed at OFMLs and CMCL is usually 25g. The sample weight for poultry meat samples taken under the DAF/FSAI enhanced poultry monitoring programme is 25g.

Table Campylobacter in other food

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for thermophilic Campylobacter spp.	C. jejuni	C. coli	C. upsaliensis	C. lari	thermophilic Campylobacter spp., unspecified
Meat from pig										
meat products										
cooked, ready-to-eat										
- at retail - Surveillance	OFML	Single	25g	234	0					
Meat from bovine animals										
fresh										
- at retail - Surveillance	OFML	Single	25g	2	0					
minced meat										
intended to be eaten										
cooked										
- at retail - Surveillance	OFML	Single	25g	1	0					
meat products										
raw but intended to be										
eaten cooked										
- at retail - Surveillance	OFML	Single	25g	1	0					
cooked, ready-to-eat										
- at retail - Surveillance	OFML	Single	25g	115	0					
Meat from sheep										
meat products										
cooked, ready-to-eat										
- at retail - Surveillance	OFML	Single	25g	11	0					
Meat from other animal										
species or not specified										
meat products										
raw but intended to be										
eaten cooked										
- at retail - Surveillance	OFML	Single	25g	1	0					
cooked, ready-to-eat										
- at retail - Surveillance	OFML	Single	25g	55	0					

Milk, cows'										
pasteurised milk										
- at retail - Surveillance	OFML	Single	25g	2	0					
Meat, red meat (meat from bovinés, pigs, goats, sheep, horses, donkeys, bison and water buffalos)										
meat products										
cooked, ready-to-eat										
- at retail - Surveillance	OFML	Single	25g	4	0					
Cheeses, made from unspecified milk or other animal milk										
unspecified										
- at retail - Surveillance	OFML	Single	25g	10	0					
Dairy products (excluding cheeses)										
butter										
- at retail - Surveillance	OFML	Single	25g	1	0					
cream										
- at retail - Surveillance	OFML	Single	25g	7	0					
ice-cream										
- at retail - Surveillance	OFML	Single	25g	5	0					
Eggs										
raw material (liquid egg) for egg products										
- at retail - Surveillance	OFML	Single	25g	1	0					
table eggs										
- at retail - Surveillance	OFML	Single	25g	2	0					
Molluscan shellfish										
cooked										
- at retail - Surveillance	OFML	Single	25g	1	0					
raw										
- at retail - Surveillance	OFML	Single	25g	1	0					
Bakery products										
cakes										
- at retail - Surveillance	OFML	Single	25g	1	0					
desserts										
- at retail - Surveillance	OFML	Single	25g	2	0					
Cereals and meals										
- at retail - Surveillance	OFML	Single	25g	20	0					
Confectionery products and pastes										
- at retail - Surveillance	OFML	Single	25g	1	0					
Foodstuffs intended for special nutritional uses										
ready-to-eat										
- at retail - Surveillance	OFML	Single	25g	4	0					
Fruits										

pre-cut										
- at retail - Surveillance	OFML	Single	25g	4	0					
products										
- at retail - Surveillance	OFML	Single	25g	5	0					
Other processed food products and prepared dishes										
sandwiches										
- at retail - Surveillance	OFML	Single	25g	91	0					
- at retail - Surveillance	OFML	Single	25g	90	0					
Sauce and dressings										
- at retail - Surveillance	OFML	Single	25g	34	0					
Soups										
frozen										
- at retail - Surveillance	OFML	Single	25g	1	0					
Nuts and nut products										
- at retail - Surveillance	OFML	Single	25g	1	0					
Fish										
cooked										
- at retail - Surveillance	OFML	Single	25g	1	0					
raw										
- at retail - Surveillance	OFML	Single	25g	3	0					
unspecified										
- at retail - Surveillance	OFML	Single	25g	2	0					
Crustaceans										
prawns										
- at retail - Surveillance	OFML	Single	25g	3	0					
unspecified										
- at retail - Surveillance	OFML	Single	25g	2	0					
Fishery products, unspecified										
cooked										
- at retail - Surveillance	OFML	Single	25g	3	0					
raw										
- at retail - Surveillance	OFML	Single	25g	2	0					
ready-to-eat										
- at retail - Surveillance	OFML	Single	25g	13	0					

Footnote

The sample weight for samples analysed at OFMLs is usually 25g

2.2.3. Campylobacter, thermophilic in animals

2.2.4. Antimicrobial resistance in Campylobacter, thermophilic isolates

2.3. LISTERIOSIS**2.3.1. General evaluation of the national situation****2.3.2. Listeria in foodstuffs****Table Listeria monocytogenes in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Definition used	Units tested	≤100 cfu/g	>100 cfu/g	Total units positive for L.monocytogenes	Listeria monocytogenes presence in x g
Milk, cows'									
pasteurised milk									
- at retail - Surveillance	OFML	Single	25g		43			0	
Cheeses made from goats' milk									
soft and semi-soft									
- at retail - Surveillance	OFML	Single	25g		15			0	
unspecified									
- at retail - Surveillance	OFML	Single	25g		60			0	
Cheeses made from sheep's milk									
unspecified									
- at retail - Surveillance	OFML	Single	25g		20			0	
Dairy products (excluding cheeses)									
butter									
- at processing plant - Surveillance (1)	DSL	Single	25g		190			0	
- at processing plant - Surveillance (2)	DSL	Batch of 5	1g		15			0	
- at processing plant - Surveillance (3)	DSL	Batch of 5	25g		11			0	
- at retail - Surveillance	OFML	Single	25g		9			0	
cream									
- at processing plant - Surveillance (1)	DSL	Single	25g		86			0	

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- at processing plant - Surveillance (2)	DSL	Batch of 5	1g		1		0	
- at processing plant - Surveillance (3)	DSL	Batch of 5	25g		4		0	
- at retail - Surveillance	OFML	Single	25g		89		0	
dairy desserts								
- at processing plant - Surveillance (1)	DSL	Single	25g		5		0	
- at processing plant - Surveillance (2)	DSL	Batch of 5	25g		3		0	
- at retail - Surveillance	OFML	Single	25g		14		0	
ice-cream								
- at processing plant - Surveillance (1)	DSL	Batch of 2	1g		2		0	
- at processing plant - Surveillance (2)	DSL	Single	25g		81		0	
- at processing plant - Surveillance (3)	DSL	Batch of 3	1g		3		0	
- at processing plant - Surveillance (4)	DSL	Batch of 5	1g		21		0	
- at processing plant - Surveillance (5)	DSL	Batch of 5	25g		5		0	
- at retail - Surveillance	OFML	Single	25g		369		0	
milk powder and whey powder								
- at processing plant - Surveillance (1)	DSL	Batch of 10	25g		8		0	
- at processing plant - Surveillance (2)	DSL	Single	25g		344		0	
- at processing plant - Surveillance (3)	DSL	Batch of 4	1g		1		0	
- at processing plant - Surveillance (4)	DSL	Batch of 5	1g		50		0	
- at processing plant - Surveillance (5)	DSL	Batch of 5	25g		30		0	
dairy products, not specified								
- at processing plant - Surveillance (1)	DSL	Single	25g		221		0	
- at processing plant - Surveillance (2)	DSL	Batch of 5	1g		13		0	
- at processing plant - Surveillance (3)	DSL	Batch of 5	25g		11		0	
- at retail - Surveillance	OFML	Single	25g		60		0	
Milk from other animal species or unspecified pasteurised								
- at processing plant - Surveillance (1)	DSL	Single	25g		30		0	

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- at processing plant - Surveillance (2)	DSL	Batch of 5	25g		1		0	
UHT milk								
- at processing plant - Surveillance	DSL	Single	25g		45		0	
Cheeses, made from unspecified milk or other animal milk								
soft and semi-soft								
- at processing plant - Surveillance (1)	DSL	Single	25g		391		0	
- at processing plant - Surveillance (2)	DSL	Batch of 5	1g		1		0	
- at retail - Surveillance	OFML	Single	25g		123		0	
hard								
- at processing plant - Surveillance (1)	DSL	Single	1g	Detected in 1g	60		15	15
- at processing plant - Surveillance (2)	DSL	Single	25g		846		0	
- at processing plant - Surveillance (3)	DSL	Batch of 5	1g		53		0	
- at processing plant - Surveillance (4)	DSL	Batch of 5	25g		8		0	
- at retail - Surveillance	OFML	Single	25g	Detected in 25g and above the detection limit (<20cfu/g)	32	1	1	1
unspecified								
- at processing plant - Surveillance	DSL	Single	25g		50		0	
- at retail - Surveillance	OFML	Single	25g	Detected in 25g and above the detection limit (<20cfu/g)	1042	1	1	1

Footnote

NOTES: The sample weight for samples analysed at OFMLs is usually 25g. The sample weight for samples analysed at DSL either 1g or 25g.

Table Listeria monocytogenes in other foods

	Source of information	Sampling unit	Sample weight	Definition used	Units tested	≤100 cfu/g	>100 cfu/g	Total units positive for L.monocytogenes	Listeria monocytogenes presence in x g
Meat from broilers (Gallus gallus)									
meat products									
cooked, ready-to-eat - at processing plant - Surveillance - at retail - Surveillance	CMCL	Single	25g		24			0	
	OFML	Single	25g	Detected in 25g and above the detection limit (<20cfu/g)	1108	1		1	1
raw but intended to be eaten cooked - at retail - Surveillance	OFML	Single	25g		3			0	
Meat from pig									
meat products									
cooked, ready-to-eat - at processing plant - Surveillance - at retail - Surveillance	CMCL	Single	25g	Detected in 25g	175			10	10
	OFML	Single	25g	Result 1: (<=100) Detected in 25g and above the detection limit (<10cfu/g). Result 2: (>100) No qualitative test and above detection limit (<20cfu/g).	1835	1	1	2	1
raw but intended to be eaten cooked - at retail - Surveillance	OFML	Single	25g		5			0	
Meat from bovine animals									
meat products									
cooked, ready-to-eat - at processing plant - Surveillance	CMCL	Single	25g	Detected in 25g	40			1	1

- at retail - Surveillance	OFML	Single	25g	Result 1: Detected in 25g and above the detection limit (<20cfu/g). Result 2: No qualitative test and above the detection limit (<20cfu/g). Result 3: Not detected in 25g and above the detection limit (<10cfu/g).	408	3		3	1	
raw but intended to be eaten cooked										
- at retail - Surveillance	OFML	Single	25g		2			0		
Fish										
smoked										
- at retail - Surveillance	OFML	Single	25g		26			0		
- at processing plant - Surveillance	DCMNR	Single	25g	Detected in 25g	61			1	1	
marinated										
- at retail - Surveillance	OFML	Single	25g		1			0		
cooked										
- at retail - Surveillance	OFML	Single	25g		22			0		
raw										
- at retail - Surveillance	OFML	Single	25g		3			0		
unspecified										
- at retail - Surveillance	OFML	Single	25g		36			0		
Crustaceans										
unspecified										
- at retail - Surveillance	OFML	Single	25g		20			0		
prawns										
- at processing plant - Surveillance (1)	DCMNR	Single	25g		19			0		
- at processing plant - Surveillance (2)	DCMNR	Single	25g		2			0		
Molluscan shellfish										
cooked										
- at retail - Surveillance	OFML	Single	25g		2			0		
- at retail - Surveillance (unspecified)	OFML	Single	25g		2			0		
Foodstuffs intended for special nutritional uses										
ready-to-eat										
- at retail - Surveillance	OFML	Single	25g		3			0		
Meat from geese										
meat products										
cooked, ready-to-eat										
- at retail - Surveillance	OFML	Single	25g		2			0		

Meat from turkey meat products cooked, ready-to-eat - at processing plant - Surveillance - at retail - Surveillance	CMCL	Single	25g		23		0		
	OFML	Single	25g		202		0		
Meat from duck meat products cooked, ready-to-eat - at retail - Surveillance	OFML	Single	25g		29		0		
Meat from poultry, unspecified meat products cooked, ready-to-eat - at processing plant - Surveillance	CMCL	Single	25g		25		0		
Meat from sheep meat products cooked, ready-to-eat - at processing plant - Surveillance - at retail - Surveillance raw but intended to be eaten cooked - at retail - Surveillance	CMCL	Single	25g		1		0		
	OFML	Single	25g		44		0		
	OFML	Single	25g		1		0		
Meat from other animal species or not specified meat products cooked, ready-to-eat - at retail - Surveillance raw but intended to be eaten cooked - at retail - Surveillance - at processing plant - Surveillance (not specified) minced meat intended to be eaten cooked - at retail - Surveillance	OFML	Single	25g		277		0		
	OFML	Single	25g		2		0		
	CMCL	Single	25g		22		0		
	OFML	Single	25g		3		0		
Meat, mixed meat meat products cooked, ready-to-eat - at retail - Surveillance - at processing plant - Surveillance	OFML	Single	25g	Detected in 25g and above the detection limit (<20cfu/g).	67	1	1	1	
	CMCL	Single	25g		6		0		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) meat products									

cooked, ready-to-eat - at retail - Surveillance	OFML	Single	25g		4		0		
Eggs									
table eggs - at retail - Surveillance	OFML	Single	25g		1		0		
Fishery products, unspecified									
- at processing plant - Surveillance	DCMNR	Single	25g	Detected in 25g	54		3	3	
cooked - at retail - Surveillance	OFML	Single	25g		23		0		
raw - at retail - Surveillance	OFML	Single	25g		4		0		
ready-to-eat - at retail - Surveillance	OFML	Single	25g		303		0		
Bakery products									
bread - at retail - Surveillance	OFML	Single	25g		8		0		
pastry - at retail - Surveillance	OFML	Single	25g	Detected in 25g. No quantitative test.	92		1	1	
cakes - at retail - Surveillance	OFML	Single	25g		118		0		
desserts - at retail - Surveillance	OFML	Single	25g		182		0		
Fruits									
pre-cut - at retail - Surveillance	OFML	Single	25g		27		0		
products - at retail - Surveillance	OFML	Single	25g		24		0		
- at retail - Surveillance (unspecified)	OFML	Single	25g		15		0		
Vegetables									
pre-cut - at retail - Surveillance	OFML	Single	25g		48		0		
products - at retail - Surveillance	OFML	Single	25g		68		0		
- at retail - Surveillance (unspecified)	OFML	Single	25g		84		0		
Fruits and vegetables products - at retail - Surveillance	OFML	Single	25g		2		0		
- at retail - Surveillance (unspecified)	OFML	Single	25g		6		0		
Juice									
fruit juice									

- at retail - Surveillance	OFML	Single	25g		5			0	
mixed juice									
- at retail - Surveillance	OFML	Single	25g		1			0	
- at retail - Surveillance (unspecified)	OFML	Single	25g		1			0	
Soups									
frozen									
- at retail - Surveillance	OFML	Single	25g		1			0	
ready-to-eat									
- at retail - Surveillance	OFML	Single	25g		133			0	
Spices and herbs									
dried									
- at retail - Surveillance	OFML	Single	25g		4			0	
- at retail - Surveillance (unspecified)	OFML	Single	25g		13			0	
Other processed food products and prepared dishes									
unspecified									
- at retail - Surveillance	OFML	Single	25g	2 results (<= 100) : Detected in 25g and above the limit of detection (<20 cfu/g). 3 results (>100) : Detected in 25g and above the detection limit (<10 cfu/g).	3605	2	3	5	5
sandwiches									
- at retail - Surveillance	OFML	Single	25g		571			0	
Sauce and dressings									
- at retail - Surveillance	OFML	Single	25g		284			0	
Cereals and meals									
- at retail - Surveillance	OFML	Single	25g		204			0	
Sprouted seeds									
ready-to-eat									
- at retail - Surveillance	OFML	Single	25g		16			0	
Nuts and nut products									
- at retail - Surveillance	OFML	Single	25g		7			0	
Mushrooms									
- at retail - Surveillance	OFML	Single	25g		6			0	
Confectionery products and pastes									
- at retail - Surveillance	OFML	Single	25g		5			0	
Beverages, non-alcoholic									
soft drinks									
- at retail - Surveillance	OFML	Single	25g		1			0	
Chocolate									

- at retail - Surveillance	OFML	Single	25g		1			0		
Fats and oils (excluding butter)										
oils										
- at retail - Surveillance	OFML	Single	25g		1			0		
Other food										
- at retail - Surveillance	OFML	Single	25g		1			0		
Sweets										
- at retail - Surveillance	OFML	Single	25g		1			0		

Footnote

The sample weight for samples analysed at OFMLs, CMCL and DCMNR is usually 25g.

2.3.3. Listeria in animals

2.4. E. COLI INFECTIONS**2.4.1. General evaluation of the national situation****2.4.2. Escherichia coli, pathogenic in foodstuffs****Table VT E.coli in food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Escherichia coli, pathogenic	E. coli spp., unspecified	Verotoxigenic E. coli (VTEC) - VTEC O157	Verotoxigenic E. coli (VTEC) - VTEC O157:H7
Meat from broilers (Gallus gallus)								
fresh								
- at retail - Surveillance	OFML	Single	25g	3	0			
meat products								
raw but intended to be eaten cooked								
- at retail - Surveillance	OFML	Single	25g	1	0			
cooked, ready-to-eat								
- at retail - Surveillance	OFML	Single	25g	15	0			
Meat from turkey								
meat products								
cooked, ready-to-eat								
- at retail - Surveillance	OFML	Single	25g	2	0			
minced meat								
intended to be eaten cooked								
- at retail - Surveillance	OFML	Single	25g	1	0			
Meat from pig								
minced meat								
intended to be eaten cooked								
- at retail - Surveillance	OFML	Single	25g	2	0			
meat products								

raw but intended to be eaten cooked - at retail - Surveillance							
	OFML	Single	25g	1	0		
cooked, ready-to-eat - at retail - Surveillance							
	OFML	Single	25g	10	0		
Meat from bovine animals							
fresh - at retail - Surveillance (1)							
	OFML	Single	25g	13	1	1	
minced meat intended to be eaten cooked - at retail - Surveillance							
	OFML	Single	25g	147	0		
meat products raw but intended to be eaten cooked - at retail - Surveillance							
	OFML	Single	25g	4	0		
cooked, ready-to-eat - at retail - Surveillance							
	OFML	Single	25g	19	0		
Meat from sheep							
fresh - at retail - Surveillance							
	OFML	Single	25g	2	0		
meat products cooked, ready-to-eat - at retail - Surveillance							
	OFML	Single	25g	1	0		
Vegetables							
pre-cut - at retail - Surveillance							
	OFML	Single	25g	1	0		
- at retail - Surveillance (vegetables unspecified)							
	OFML	Single	25g	5	0		
Fruits							
pre-cut - at retail - Surveillance							
	OFML	Single	25g	1	0		
Meat from duck							
fresh - at retail - Surveillance							
	OFML	Single	25g	1	0		
meat products raw but intended to be eaten cooked - at retail - Surveillance							
	OFML	Single	25g	1	0		
cooked, ready-to-eat - at retail - Surveillance							
	OFML	Single	25g	3	0		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos)							
meat products cooked, ready-to-eat - at retail - Surveillance							
	OFML	Single	25g	4	0		
minced meat							

intended to be eaten cooked - at retail - Surveillance	OFML	Single	25g	2	0			
Meat from other animal species or not specified meat products raw but intended to be eaten cooked - at retail - Surveillance	OFML	Single	25g	2	0			
cooked, ready-to-eat - at retail - Surveillance	OFML	Single	25g	5	0			
minced meat intended to be eaten cooked - at retail - Surveillance	OFML	Single	25g	40	0			
Cheeses, made from unspecified milk or other animal milk soft and semi-soft - at retail - Surveillance	OFML	Single	25g	1	0			
unspecified - at retail - Surveillance	OFML	Single	25g	6	0			
Dairy products (excluding cheeses) cream - at retail - Surveillance	OFML	Single	25g	1	0			
ice-cream - at retail - Surveillance	OFML	Single	25g	5	0			
Eggs table eggs - at retail - Surveillance	OFML	Single	25g	2	0			
Fish raw - at retail - Surveillance	OFML	Single	25g	1	0			
Fishery products, unspecified raw - at retail - Surveillance	OFML	Single	25g	1	0			
ready-to-eat - at retail - Surveillance	OFML	Single	25g	3	0			
Molluscan shellfish cooked - at retail - Surveillance	OFML	Single	25g	1	0			
Bakery products cakes - at retail - Surveillance	OFML	Single	25g	2	0			
Cereals and meals - at retail - Surveillance	OFML	Single	25g	4	0			
Confectionery products and pastes								

- at retail - Surveillance	OFML	Single	25g	3	0			
Juice								
fruit juice								
- at retail - Surveillance	OFML	Single	25g	3	0			
Other processed food products and prepared dishes								
- at retail - Surveillance	OFML	Single	25g	10	0			
sandwiches								
- at retail - Surveillance	OFML	Single	25g	1	0			
Sauce and dressings								
- at retail - Surveillance	OFML	Single	25g	12	0			
Soups								
ready-to-eat								
- at retail - Surveillance	OFML	Single	25g	1	0			

(1) : VT E.coli O157 Phage type 32

Footnote

The sample weight for samples analysed at OFMLs is usually 25g.

2.4.3. Escherichia coli, pathogenic in animals

2.5. TUBERCULOSIS, MYCOBACTERIAL DISEASES

2.5.1. General evaluation of the national situation

2.5.2. Mycobacterium in animals

Table Bovine tuberculosis in countries and regions that do not receive Community co-financing for eradication programme

Region	Total number of existing bovine		Officially free herds		Infected herds		Routine tuberculin testing		Number of tuberculin tests carried out before the introduction into the herds (Annex A(I)(2)(c) third indent (1) of Directive 64/432/EEC)	Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological examinations	Number of animals detected positive in bacteriological examination
	Herds	Animals	Number of herds	%	Number of herds	%	Interval between routine tuberculin tests	Number of animals tested			
IRELAND	123322	6407456	118869		3787		1	6997539		4137	2755
Total	123322	6407456	118869	0	3787	0	1	6997539	0	4137	2755

Footnote

Herds routinely tested once per annum

Table Tuberculosis in farmed deer

Region	Total number of existing farmed deer		Free herds		Infected herds		Routine tuberculin testing		Number of tuberculin tests carried out before the introduction into the herds	Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological examinations	Number of animals detected positive in bacteriological examination
	Herds	Animals	Number of herds	%	Number of herds	%	Interval between routine tuberculin tests	Number of animals tested			
IRELAND	0	0									
Total	0	0	0	0	0	0	0	0	0	0	0

2.6. BRUCELLOSIS

2.6.1. General evaluation of the national situation

2.6.2. Brucella in foodstuffs

2.6.3. Brucella in animals

Table Brucellosis in other animals

	Source of information	Sampling unit	Units tested	Total units positive for Brucella	B. melitensis	B. abortus	B. suis	Brucella spp., unspecified
Pigs	*			0	0	0	0	0

Footnote

* Brucella was not detected in any non-bovine species in Ireland in 2005; sources include the various Department of Agriculture laboratories and private laboratories

Table Bovine brucellosis - data on herds - Community co-financed eradication programmes

Region	Total number of herds	Total number of herds under the programme	Number of herds checked	Number of positive herds	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	Indicators		
								% herd coverage	% positive herds period prevalence	% new positive herds - herd incidence
IRELAND	123318	123318	119963	144	144	27	18.75	97.279	0.12	0.12
Total	123318	123318	119963	144	144	27	18.75	97.279	0.12	0.12
Total - 1										

Table Bovine brucellosis - data on animals - Community co-financed eradication programmes

Region	Total number of animals	Number of animals to be tested under the programme	Number of animals tested	Number of animals tested individually	Number of new positive animals	Slaughtering		Indicators	
						Number of animals with positive result slaughtered or culled	Total number of animals slaughtered	% coverage at animal level	% positive animals - animal prevalence
IRELAND	6407456	3516590	4860891	4860891	228	228	2347	138 227	0.005
Total	6407456	3516590	4860891	4860891	228	228	2347	138 227	0.005
Total - 1									

Footnote

% positive animal Animal prevalence is incorrect in this report. % positive animals Animal prevalence for Ireland in 2005 is 0.005

Table Bovine brucellosis - data on status of herds at the end of the period - Community co-financed eradication programmes

Region		Status of herds and animals under the programme													
		Total number of herds and animals under the programme		Unknown		Not free or not officially free				Free or officially free suspended		Free		Officially free	
		Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals
IRELAND		123322	3516590	0	0	43	3302	6	520	0	0	0	0	123273	3512768
Total		123322	3516590	0	0	43	3302	6	520	0	0	0	0	123273	3512768
Total - 1		124414	3500000	0	0	47	3503	55	4634	0	0	0	0	124312	3491863

Ovine or Caprine Brucellosis in countries and regions that do not receive Community co-financing for eradication programme

Region	Total number of existing ovine / caprine		Officially free herds		Infected herds		Surveillance			Investigations of suspect cases				
	Herds	Animals	Number of herds	%	Number of animals	%	Number of herds tested	Number of animals tested	Number of infected herds	Number of animals tested with serological blood tests	Number of animals positive serologically	Number of animals examined microbiologically	Number of animals positive microbiologically	Number of suspended herds
IRELAND	43000	4500000	100	4500000	0	0	0	29000	0	0	0	0	0	0
Total	43000	4500000	100	4500000	0	0	0	29000	0	0	0	0	0	0

Footnote

Ireland is recognised as Officially Free of *B. melitensis*, and carries out an annual survey to confirm this freedom

2.7. YERSINIOSIS

2.7.1. General evaluation of the national situation

2.7.2. Yersinia in foodstuffs

2.7.3. Yersinia in animals

2.8. TRICHINELLOSIS

2.8.1. General evaluation of the national situation

2.8.2. Trichinella in animals

Table Trichinella in animals

	Source of information	Sampling unit	Units tested	Total animals positive for Trichinella	T. spiralis	Trichinella spp., unspecified
Pigs		Bacon	2641	0		
breeding animals unspecified sows and boars (1)						
			957	0		
Solipeds, domestic						
horses (2)			36	0		
Foxes			0			
Bears			0			
Rodents			0			
Rats			0			

(1) : Central Meat Control Laboratory

(2) : Central Meat Control Laboratory

2.9. ECHINOCOCCOSIS

2.9.1. General evaluation of the national situation

2.9.2. Echinococcus in animals

2.10. TOXOPLASMOSIS

2.10.1. General evaluation of the national situation

2.10.2. Toxoplasma in animals

2.11. RABIES

2.11.1. General evaluation of the national situation

2.11.2. Lyssavirus (rabies) in animals

3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE

3.1. *ESCHERICHIA COLI, NON-PATHOGENIC*

3.1.1. General evaluation of the national situation

3.1.2. Antimicrobial resistance in *Escherichia coli*, non-pathogenic isolates

4. FOODBORNE OUTBREAKS

Foodborne outbreaks are incidences of two or more human cases of the same disease or infection where the cases are linked or are probably linked to the same food source. Situation, in which the observed human cases exceed the expected number of cases and where a same food source is suspected, is also indicative of a foodborne outbreak.

Table 12. Foodborne outbreaks in humans

Causative agent	General outbreak	Family outbreak	Total Number in persons			Source	Type of evidence		Location of exposure	Contributing factors
			ill	died	in hospital		Suspected	Confirmed		
1	2	3	4	5	6	7	8	9	10	
Unknown	x		26	0	0	Not specified			Residential institution	
Salmonella(1)	x		3	0	0	Food unknown			Travel related	
Salmonella(2)		x	2	0	1	Not specified			Private house	Poor hygiene conditions
Salmonella	x		6	0	5	Not specified			Community outbreak	
Salmonella(3)		x	2	0	0	Not specified			Travel related	
Campylobacter, thermophilic		x	2	0	0	Not specified			Private house	
Campylobacter, thermophilic		x	2	0	0	Not specified			Private house	
Campylobacter, thermophilic		x	2	0	0	Not specified			Private house	
Salmonella		x	3	0	1	Hot dog from garage deli	x		Private house	
Campylobacter, thermophilic		x	2	0	0	Not specified			Private house	
Campylobacter, thermophilic - C. jejuni		x	2	0	0	Not specified			Private house	
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC)(4)		x	2	0	1	Not specified			Private house	
Shigella - S. sonnei		x	3	0	1	Not specified			Other	
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC) - VTEC O157(5)		x	1	0	1	Halal meat (lamb)	x		Private house	
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC) - VTEC O157(6)		x	2	0	1	Not specified			Private house	
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC) - VTEC O157		x	2	0	1	Not specified			Private house	
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC) - VTEC O157(7)		x	2	0	1	Not specified			Private house	
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC) - VTEC O157(7)	x		2	0	1	Not specified			Travel related	
Food borne viruses - calicivirus (including norovirus) - norovirus (Norwalk-like virus)	x		8	0	0	Not specified			Public house	

Food borne viruses - calicivirus (including norovirus) - norovirus (Norwalk-like virus)	x	122	0	1	Not specified				Other	Foodhandler symptomatic during outbreak
(1) : PT8										
(2) : DT104										
(3) : PT1										
(4) : VT2 positive										
(5) : VT1 & VT2 positive, PT8										
(6) : VT2 positive, PT21/28										
(7) : VT2 positive, PT88										