

FRANCE

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

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

including information on foodborne outbreaks,
antimicrobial resistance in zoonotic agents and some
pathogenic microbiological agents.

IN 2010

INFORMATION ON THE REPORTING AND MONITORING SYSTEM

Country: France

Reporting Year:

Laboratory name	Description	Contribution
DGAL	Direction générale de l'alimentation	DGAL is the central competent authority for risk management. Centralization of datas from national monitoring plan in animals, foodstuff, feedstuff Datan on regulated diseases
ANSES	ANSES stands for "Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail". It is the french institute for risk assessment. There are also 12 laboratories throughout France, some of them are NLR for certain pathogens.	AMR datan and datan when an ANSES lab is also a NLR
INVS	Institut National de Veille Sanitaire - depending on french ministry of health.	FBO datan. These datan are shared with an office (office for sanitary emergencies and contact point for RASFF) in DGAL.
DGCCRF	General Directorate for Competition Policy, Consumer Affairs and Fraud Control from the ministry of economy. At the local level this service (local fraud service) and the service of DGAL (vet services) are the same.	At the central level, DGCCRF organises monitoring plan every year on food at retail level (for this report salmonella in food and feed and listeria).

PREFACE

This report is submitted to the European Commission in accordance with Article 9 of Council Directive 2003/99/ EC*. 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 France during the year 2010 .

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.

* 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.

A. Information on susceptible animal population

Sources of information

The sources of data are the "Central Service of the Statistical Surveys and Studies" and the "Food Safety Department" (of the general directorate for food) of the French Ministry of Agriculture and Fisheries.

Dates the figures relate to and the content of the figures

The numbers of animals and holdings indicated in the table correspond to animals present at the time of 1 November 2009 for the bovine, ovine, caprine and porcine species. Sources are the "surveys on livestock", surveys imposed by the Community legislation, the overall results of which are forwarded to Eurostat.

For broilers, the information of livestock comes from the survey on the "structure of the farms", which also are a survey answering Community legislation and which take place in 2003, 2005 and 2007 between the two censuses of 2000 and the one foreseen in 2010.

The numbers of slaughtered animals and the detailed number of flocks of fowls, distributed according to the type of birds and the production sectors, are related to 2008. The numbers of slaughtered animals indicated in the table come from the "Central Service of the Statistical Surveys and Studies", whereas detailed numbers of fowl flocks come from the "Food Safety Department".

Definitions used for different types of animals, herds, flocks and holdings as well as the types covered by the information

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National evaluation of the numbers of susceptible population and trends in these figures

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Geographical distribution and size distribution of the herds, flocks and holdings

Some useful informations are available on the website: <http://www.securitesanitairesaliments.com/> with other languages translation.

Additional information

Further information is given in the "Central Service of the Statistical Surveys and Studies" web site: <http://www.agreste.agriculture.gouv.fr/>

You can find updated figures

Table Susceptible animal populations

* Only if different than current reporting year

Animal species	Category of animals	Number of herds or flocks		Number of slaughtered animals		Livestock numbers (live animals)		Number of holdings	
		Data	Year*	Data	Year*	Data	Year*	Data	Year*
Cattle (bovine animals)	meat production animals			3594802		873047		109240	2009
	mixed herds							8333	2009
	dairy cows and heifers					5749856		82185	2009
	calves (under 1 year)			1464679		4850371			
	- in total ¹⁾			5059481		19864660		191425	2009
Deer	farmed - in total			2824					
Ducks	- in total			76202000					
Gallus gallus (fowl)	broilers			786134000		124649000			
	laying hens			39115000					
	- in total			795249000					
	elite breeding flocks for broiler production line - adult ²⁾	42				156439			
	elite breeding flocks for broiler production line - during rearing period ³⁾	120				525700			
	elite breeding flocks for egg production line - adult ⁴⁾	1				3921			

Table Susceptible animal populations

Animal species	Category of animals	Number of herds or flocks		Number of slaughtered animals		Livestock numbers (live animals)		Number of holdings	
		Data	Year*	Data	Year*	Data	Year*	Data	Year*
Gallus gallus (fowl)	elite breeding flocks for egg production line - during rearing period ⁵⁾	1				10568			
	grandparent breeding flocks for broiler production line - adult ⁶⁾	90				636961			
	grandparent breeding flocks for broiler production line - during rearing period ⁷⁾	90				544558			
	grandparent breeding flocks for egg production line - adult ⁸⁾	36				287309			
	grandparent breeding flocks for egg production line - during rearing period ⁹⁾	34				243821			
	laying hens - adult ¹⁰⁾	2775							
	laying hens - during rearing period ¹¹⁾	2225				55065949			
	parent breeding flocks for broiler production line - adult ¹²⁾	893				6959855			
	parent breeding flocks for broiler production line - during rearing period ¹³⁾	811				7635423			
	parent breeding flocks for egg production line - adult ¹⁴⁾	85				921711			
parent breeding flocks for egg production line - during rearing period ¹⁵⁾	65				887510				
Geese	- in total			329000					
Goats	animals over 1 year ¹⁶⁾			130294		1034021			

Table Susceptible animal populations

Animal species	Category of animals	Number of herds or flocks		Number of slaughtered animals		Livestock numbers (live animals)		Number of holdings	
		Data	Year*	Data	Year*	Data	Year*	Data	Year*
Goats	milk goats					917832			
	animals under 1 year			691546		315010			
	- in total			821840		1349031		16052	2009
Pigs	breeding animals					14556			
	fattening pigs			24189737		7583291			
	breeding animals - unspecified - sows and gilts			396998		1114707			
	- in total			24930625		14063310		29511	2009
Sheep	animals over 1 year			547770					
	milk ewes					1865282			
	meat production animals					4206591			
	animals under 1 year (lambs)			3880869		831785			
	- in total			4428639		6903658		57977	2009
Solipeds, domestic	horses - in total			17085					
Turkeys	- in total			56636000					

Table Susceptible animal populations

Animal species	Category of animals	Number of herds or flocks		Number of slaughtered animals		Livestock numbers (live animals)		Number of holdings	
		Data	Year*	Data	Year*	Data	Year*	Data	Year*
Turkeys	elite breeding flocks - adult ¹⁷⁾	5				4091			
	grandparent breeding flocks - adult ¹⁸⁾	16				30141			
	grandparent breeding flocks - during rearing period ¹⁹⁾	18				70551			
	parent breeding flocks - adult ²⁰⁾	612							
	parent breeding flocks - during rearing period ²¹⁾	368				1490741			
Wild boars	farmed - in total			655					

Comments:

- 1) For detailed figures per regions and per ages see:
- 2) Number of flocks put in place in 2010
- 3) Number of flocks put in place in 2010
- 4) Number of flocks put in place in 2010
- 5) Number of flocks put in place in 2010
- 6) Number of flocks put in place in 2010
- 7) Number of flocks put in place in 2010
- 8) Number of flocks put in place in 2010
- 9) Number of flocks put in place in 2010
- 10) Only gallus gallus covered by the program for salmonella control Reg. (EC)2160-2003

Table Susceptible animal populations

Comments:

- ¹¹⁾ Only gallus gallus covered by the program for salmonella control Reg. (EC)2160-2003
- ¹²⁾ Number of flocks put in place in 2010
- ¹³⁾ Number of flocks put in place in 2010
- ¹⁴⁾ Number of flocks put in place in 2010
- ¹⁵⁾ Number of flocks put in place in 2010
- ¹⁶⁾ including milk goats.
- ¹⁷⁾ Number of flocks put in place in 2010
- ¹⁸⁾ Number of flocks put in place in 2010
- ¹⁹⁾ Number of flocks put in place in 2010
- ²⁰⁾ Number of flocks put in place in 2010
- ²¹⁾ Number of flocks put in place in 2010

Footnote:

All the updated figures are available at : <http://www.agreste.agriculture.gouv.fr/>

The datas for gallus gallus and turkey comes from the control program against salmonella.

The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2012-02-22	Cattle (bovine animals) - in total	Livestock numbers (live animals) - Data	18991613	19864660
	Cattle (bovine animals) - meat production animals	Livestock numbers (live animals) - Data		873047
	Goats - animals over 1 year	Livestock numbers (live animals) - Data	1327079	1034021
	Goats - in total	Livestock numbers (live animals) - Data	2654158	1349031

Date of Modification	Row name	Column name	Old value	New value
2012-02-22	Goats - animals under 1 year	Livestock numbers (live animals) - Data	96382	315010
	Goats - milk goats	Livestock numbers (live animals) - Data	1230697	917832
	Goats - animals over 1 year	Comment		including milk goats.
	Goats - in total	Livestock numbers (live animals) - Data		2654158
	Gallus gallus (fowl) - in total	Number of slaughtered animals - Data	788712000	795249000
	Gallus gallus (fowl) - broilers	Number of slaughtered animals - Data	746834000	786134000
	Gallus gallus (fowl) - broilers	Livestock numbers (live animals) - Data		124649000

2. INFORMATION ON SPECIFIC ZONOSSES AND ZOOBOTIC 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

A. General evaluation

History of the disease and/or infection in the country

See specific websites referenced below and information on:
http://www.invs.sante.fr/surveillance/salmonelloses_non_typhiques/default.htm
to have specific informations in humans.

For poultry, salmonella control program was launched in 1998 in breeders in breeding flocks of *gallus gallus* in laying hens with a voluntary and incitative aspect called "charte sanitaire" (Incitative insurance)

National evaluation of the recent situation, the trends and sources of infection

Approximately half of the collective FBO salmonella verified are linked to egg consumption.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

In 2004, InVs has showed the link between the reduction of humans cases infected by *S. enteritidis* et the setting up of national control plan against salmonella in poultry.

Recent actions taken to control the zoonoses

The broilers and the turkeys are now included in the national salmonella control program together with laying hens.

Suggestions to the Community for the actions to be taken

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Additional information

Salmonella spp in animals

The Salmonella network is a national epidemiological surveillance network which specifically monitors salmonellae of non-human origin for the whole of the food chain. Complementary to the surveillance of salmonellae of human origin whose results are available at <http://www.pasteur.fr/ip/easysite/go/03b-000042-02s/sante/centres-nationaux-de-reference-et-centres-collaborateurs-de-l-omscadreocr/bordet-index.html>, from the CNR for salmonella.

INVS is also implied in the surveillance:
For antimicrobial resistance issue consult:

Salmonella net:
Le réseau Salmonella on <http://www.afssa.fr/index.htm>
and
<http://www.afssapro.fr/reseausalmonella/>

Monitoring of antibiotics sales
<http://www.anmv.afssa.fr/antibioresistance>

Thematic folders: Antibiotics resistance

<http://www.afssa.fr/index.htm>

Resapath net

<http://www.afssa.fr/Documents/LABO-Ra-Resapath2008.pdf>

For AMR of salmonella in humans consult:

http://invs.sante.fr/surveillance/resistance/sources_donnees.htm#salmonelles and

http://invs.sante.fr/surveillance/resistance/plaquette_resistance_antibiotiques.pdf and

<http://invs.sante.fr/surveillance/resistance/>

2.1.2 Salmonellosis in humans

A. Salmonellosis in humans

Reporting system in place for the human cases

See invs website:

http://www.invs.sante.fr/surveillance/salmonelloses_non_typhiques/default.htm

Case definition

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Diagnostic/analytical methods used

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Notification system in place

--

History of the disease and/or infection in the country

http://www.invs.sante.fr/surveillance/salmonelloses_non_typhiques/default.htm

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

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Relevance as zoonotic disease

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Additional information

useful informations about french surveillance of salmonella are available at:

<http://www.pasteur.fr/ip/easysite/go/03b-00003q-03e/actualites-rapports>

and

2.1.3 Salmonella in foodstuffs

A. Salmonella spp. in pig meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

See broiler meat principles are the same.

At meat processing plant

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At retail

--

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

--

At meat processing plant

--

At retail

--

Definition of positive finding

At slaughterhouse and cutting plant

--

At meat processing plant

--

At retail

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

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B. Salmonella spp. in bovine meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

See broiler meat principles are the same.

At meat processing plant

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At retail

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Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

--

At meat processing plant

--

At retail

--

Definition of positive finding

At slaughterhouse and cutting plant

--

At meat processing plant

--

At retail

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

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C. Salmonella spp. in broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

Slaughterhouses operators must set up a own-check control plan in accordance with 2073-2005.

At meat processing plant

For minced meat and meat preparation of broiler meat intended to be eaten cooked, mechanically separated meat, products derivated from broilers meat intended to be eaten raw (except if risk salmonella is reduced to 0, due to cleaning up food processing), or to be eaten cooked: own check control plan in accordance with 2073-2005.

Food business operators have to establish an HACCP plan with several own-check controls (reception, during manufacturing process).

At retail

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Frequency of the sampling

At slaughterhouse and cutting plant

Other: n=50 c=7

10 successive samplings (5*10)

At meat processing plant

In accordance with 2073-2005 for category minced meat and meat products intended to be eaten cooked, or mech. sep. meat.

Described in the Specific HACCP plan for category of meat missing from this regulation. The food business operator must do analyses taking into account quantity and type of products.

Type of specimen taken

At slaughterhouse and cutting plant

Other: skin neck after drying

At meat processing plant

Own check on finished products (2073-2005)

In specific HACCP: raw materials, process, finished products.

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

Skin neck at slaughterhouse

At meat processing plant

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At retail

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Definition of positive finding

At slaughterhouse and cutting plant

7 positive results are accepted

Absent of salmonella in 25g

At meat processing plant

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At retail

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Control program/mechanisms

The control program/strategies in place

Monitoring plan on campylobacter and salmonella in the frame of Directive EC n°2003-99. This plan of sampling tests the efficiency of the HACCP measure set up in the plant or the slaughterhouse.

The organisation of monitoring plan is done in close cooperation with DGCCRF (directorate for competition policy consumer affairs and fraud control, ministry of economy), DGS (Directorate for health, ministry of health) AFSSA and InVS (institute of sanitary surveillance).

Recent actions taken to control the zoonoses

In 2010, other plants to find accurate manufacturing process criteria.

Suggestions to the Community for the actions to be taken

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Measures in case of the positive findings or single cases

In presence of positive case, the fbo must increase hygiene measures and make an epidemiological survey to find the origin of the contamination.

No measure for chicken cutting products intended to be cooked as there is no microbiological criteria for this category of products.

Market withdrawal is the product is in non-conformity security criterion.

Notification system in place

For category of products where there is a security criteria.

Results of the investigation

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National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

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D. Salmonella spp. in eggs and egg products

Monitoring system

Sampling strategy

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Methods of sampling (description of sampling techniques)

Eggs at egg packing centres (foodstuff based approach)

--

Eggs at retail

--

Raw material for egg products (at production plant)

--

Egg products (at production plant and at retail)

--

Definition of positive finding

Eggs at egg packing centres (foodstuff based approach)

--

Eggs at retail

--

Raw material for egg products (at production plant)

--

Egg products (at production plant and at retail)

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

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E. Salmonella spp. in turkey meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

--

At meat processing plant

--

At retail

--

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

--

At meat processing plant

--

At retail

--

Definition of positive finding

At slaughterhouse and cutting plant

--

At meat processing plant

--

At retail

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

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Additional information

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Table Salmonella in poultry 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. 1,4,[5],12:i:-	S. Agona	S. Anatum
Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Surveillance - official controls ¹⁾	CCA	Batch	25	67	7	1					
Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	CCA	Single	25	111	1						
Meat from broilers (Gallus gallus) - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalope)	CCA	Single	25	110	1						
Meat from broilers (Gallus gallus) - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)	CCA	Single	25	109	2						
Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling ²⁾	CCA	Batch	10	49	6	1		1			1
Meat from duck - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	CCA	Batch	10	4	0						
Meat from geese - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	CCA	Batch	10	1	0						
Meat from turkey - carcass - at slaughterhouse - Surveillance - official controls ³⁾	CCA	Batch	25	30	5				1		1
Meat from turkey - carcass - chilled - at retail - domestic production - Monitoring - official sampling	CCA	Single	25	17	1						

Table Salmonella in poultry 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. 1,4,[5],12:i:-	S. Agona	S. Anatum
Meat from turkey - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalopes)	CCA	Single	25	94	1						
Meat from turkey - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)	CCA	Single	25	131	19		1				2
Meat from turkey - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling (roast)	CCA	Single	25	81	3					1	
Meat from turkey - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	CCA	Batch	10	128	16		1	5			
	S. Brandenburg	S. Bredeney	S. Derby	S. Ferruch	S. Hadar	S. Indiana	S. Infantis	S. Lille	S. Livingstone	S. Muenchen	S. Paratyphi B
Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Surveillance - official controls ¹⁾						4				1	
Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling									1		
Meat from broilers (Gallus gallus) - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalope)								1			

Table Salmonella in poultry meat and products thereof

	S. Brandenburg	S. Bredeney	S. Derby	S. Ferruch	S. Hadar	S. Indiana	S. Infantis	S. Lille	S. Livingstone	S. Muenchen	S. Paratyphi B
Meat from broilers (Gallus gallus) - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)						1			1		
Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling ²⁾						2	1				1
Meat from duck - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling											
Meat from geese - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling											
Meat from turkey - carcass - at slaughterhouse - Surveillance - official controls ³⁾			1			2					
Meat from turkey - carcass - chilled - at retail - domestic production - Monitoring - official sampling						1					
Meat from turkey - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalopes)			1								
Meat from turkey - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)	1		2	1	2	9					

Table Salmonella in poultry meat and products thereof

	S. Brandenburg	S. Bredeney	S. Derby	S. Ferruch	S. Hadar	S. Indiana	S. Infantis	S. Lille	S. Livingstone	S. Muenchen	S. Paratyphi B
Meat from turkey - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling (roast)						1					
Meat from turkey - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	1	4			1	4					

	S. Saintpaul
Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Surveillance - official controls ¹⁾	1
Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
Meat from broilers (Gallus gallus) - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalope)	
Meat from broilers (Gallus gallus) - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)	
Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling ²⁾	

Table Salmonella in poultry meat and products thereof

	S. Saintpaul
Meat from duck - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	
Meat from geese - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	
Meat from turkey - carcass - at slaughterhouse - Surveillance - official controls ³⁾	
Meat from turkey - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
Meat from turkey - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalopes)	
Meat from turkey - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)	1
Meat from turkey - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling (roast)	1
Meat from turkey - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	

Comments:

Table Salmonella in poultry meat and products thereof

Comments:

- 1) One batch includes 5 samples unit . One unit is the result of pooling 10 g neck skin from 3 poultry carcasses from the same flock. One batch positive both for *S. enteritidis* and *S.*
- 2) One sample positive for *S. enteritidis* and *infantis*. Each batch (50g) contains 5 samples of 10g : in compliance with (EC) Reg. 2073-2005
- 3) One batch includes 5 samples unit . One unit is the result of pooling 10 g neck skin from 3 poultry carcasses from the same flock.

Footnote:

All the monitoring plan and method in accordance with (EC) reg. 2073/2005.

Detection method: EN/ISO 6579 or validated according article 5

Enumeration method: Fravallo and al.

results: absence or presence in 25g (carcasses or meat products) or 10g (for MSM)

For the monitoring plan at retail:

980 samples (36 positives) allocated as follows:

Pig meat: 327 samples (8 positive)

- minced meat
- pieces

Broiler meat 330 samples (4 positives)

- carcasses (111) with skin
- legs (109) with skin
- escalopes (110) skinned

Turkey meat 323 samples (24 positive)

- carcasses (17)
- legs (131)
- escalopes (94)
- roast (81)

For the monitoring plan at slaughterhouse:

100 units sampled allocated between 30 turkey carcasses
and 67 (broiler carcasses)

Each batch was composed of 5*(3*10g) of neck skins form 3 different carcasses of the same flock.

For the monitoring plan MSM poultry meat (vSM gros grain) at processing plan: 198 samples allocated as follows:

turkey 128 (16 positives)

Table Salmonella in poultry meat and products thereof

broiler: 49 (6 positives)
 others: 16 (0 positive)
 duck :4 (0 positive)
 goose : 1 (0 positive)

Each batch is composed of 5 units

The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Surveillance - official controls	Comment	One batch includes 5 samples unit . One unit is the result of pooling 10 g neck skin from 3 poultry carcasses from the same flock.One batch positive both for S. enteritidis and S.typhimurium	One batch includes 5 samples unit . One unit is the result of pooling 10 g neck skin from 3 poultry carcasses from the same flock.One batch positive both for S. enteritidis and S.
	Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Surveillance - official controls	Comment	One batch includes 5 samples unit . One unit is the result of pooling 10 g neck skin from 3 poultry carcasses from the same flock.One batch positive both for S. enteritidis and	One batch includes 5 samples unit . One unit is the result of pooling 10 g neck skin from 3 poultry carcasses from the same flock.One batch positive both for S. enteritidis and S.typhimurium

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. 1,4,[5],12:i:-	S. Anatum	S. Derby
Meat from pig - fresh - chilled - at retail - domestic production - Monitoring - official sampling ¹⁾	CCA	Single	25	211	6		1		1	1	3
Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling ²⁾	DGCCRF	Single	25	474	0						
Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls	CCA	Single	25	116	2		1				1

	S. Infantis
Meat from pig - fresh - chilled - at retail - domestic production - Monitoring - official sampling ¹⁾	1
Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling ²⁾	
Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls	

Comments:

Table Salmonella in red meat and products thereof

Comments:

- 1) One sample positive both for *S. anatum* and *S. infantis*
- 2) raw ham, dry cooked sausages smoked or not

The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling	Sample weight		25
	Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling	Comment		raw ham, dry cooked sausages smoked or not
	Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling	Units tested		474
	Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling	Sampling unit		Single
	Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling	Total units positive for Salmonella		0
	Meat from pig - meat products - raw and intended to be eaten raw - chilled - at retail - domestic production - Monitoring - official sampling	Source of information		DGCCRF

2.1.4 Salmonella in animals

A. Salmonella spp. in Gallus Gallus - breeding flocks

Monitoring system

Sampling strategy

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

In accordance with regulations (EC) n°2160/2003 and 200/2010 (ex.1003/2005), all the flocks are sampled.

Frequency of the sampling

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

Every flock is sampled

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

At the age of 4 weeks and 2 weeks prior moving

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

Within 4 weeks after setting, and at the age of 34, 42, 50 weeks and within 8 weeks before culling (breeders for meat production line) , within 4 weeks after setting and at the age of 38, 54 weeks and within 8 weeks before culling (breeders for egg production line), and every 2 weeks at the hatchery

Type of specimen taken

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

Internal linings of delivery boxes

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

Environmental sample: boot swabs and chiffonnettes

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

Other: boot swabs and chiffonnettes (holding), internal liners of hatching boxes (hatchery), chiffonnettes, egg-shell.

Methods of sampling (description of sampling techniques)

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

--

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

--

Breeding flocks: Production period

--

Case definition

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

A positive case is a flock where at least 1 sample gives a positive result for Salmonella Enteritidis, Typhimurium, Hadar, Infantis, Virchow or ST like.

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

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A positive case is a flock where at least 1 sample gives a positive result for Salmonella Enteritidis, Typhimurium, Hadar, Infantis, Virchow or ST like .

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

A positive case is a flock where 2 rows of sampling give a positive result for Salmonella Enteritidis, Typhimurium, Hadar, Infantis, Virchow or ST like on at least one sample.

Diagnostic/analytical methods used

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

Bacteriological method: NF U 47 100 and NF U 47 101

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

Bacteriological method: NF U 47 100 and NF U 47 101

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

Bacteriological method: NF U 47 100 and NF U 47 101

Vaccination policy

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

Vaccination is forbidden for all breeders of the egg production line.

Vaccination is forbidden for grandparents and elite of the meat production line, but authorized for parents of this line (only inactivated vaccines).

Other preventive measures than vaccination in place

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

The respect of good hygiene practices covered by the "Charte Sanitaire" is mandatory to get a financial compensation in case of infection.

Control program/mechanisms

The control program/strategies in place

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

All positive flocks for SE, ST, SH, SI, SV are slaughtered, and their products destroyed or heat treated.

Carcasses are heat treated if Salmonella is identified within muscles.

Recent actions taken to control the zoonoses

Since 2009, french regulations now take into account Typhimurium-like serotype.

Suggestions to the Community for the actions to be taken

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Measures in case of the positive findings or single cases

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

--

Notification system in place

Notification to central competent authorities is mandatory

Results of the investigation

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National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

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B. Salmonella spp. in Gallus Gallus - broiler flocks

Monitoring system

Sampling strategy

Broiler flocks

The national control programme started on January 09.

Type of specimen taken

Broiler flocks: Before slaughter at farm

Other: Chiffonettes, bootswabs

Methods of sampling (description of sampling techniques)

Broiler flocks: Day-old chicks

--

Broiler flocks: Rearing period

--

Broiler flocks: Before slaughter at farm

2 pairs of boot swabs (in accordance with EC N°646/2007).

Broiler flocks: At slaughter (flock based approach)

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Case definition

Broiler flocks: Day-old chicks

--

Broiler flocks: Rearing period

--

Broiler flocks: Before slaughter at farm

If 1 sample is positive for ST or SE or ST like

Broiler flocks: At slaughter (flock based approach)

--

Vaccination policy

Broiler flocks

--

Other preventive measures than vaccination in place

Broiler flocks

Some basic good hygiene practises and biosecurity measures are mandatory.

Control program/mechanisms

The control program/strategies in place

Broiler flocks

Cleaning and disinfection are mandatory if one sample was positive for ST or SE or ST like. Heat treatment of carcasses is mandatory if salmonella is found in muscles.

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Recent actions taken to control the zoonoses

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Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

Broiler flocks: Day-old chicks

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Broiler flocks: Rearing period

--

Broiler flocks: Before slaughter at farm

--

Broiler flocks: At slaughter (flock based approach)

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

--

C. Salmonella spp. in Gallus Gallus - flocks of laying hens

Monitoring system

Sampling strategy

Laying hens flocks

sampling in accordance with regulations (EC) n°2160/2003 and 1168/2006 + extra samples commensurate with flock size

Frequency of the sampling

Laying hens: Day-old chicks

Every flock is sampled

Laying hens: Rearing period

At the age of 4 weeks and 2 weeks prior moving.

Laying hens: Production period

At the age of 24 weeks and every 15 weeks

Laying hens: Before slaughter at farm

6 or 10 weeks prior to slaughter (10 weeks for flocks in cage and 6 for the others)

Type of specimen taken

Laying hens: Day-old chicks

Internal linings of delivery boxes

Laying hens: Rearing period

Environmental sample: boot swabs and chiffonnettes

Laying hens: Production period

Environmental sample: boot swabs and chiffonnettes, and also feed for large flocks

Laying hens: Before slaughter at farm

Environmental sample: boot swabs and chiffonnettes, and also feed for large flocks

Methods of sampling (description of sampling techniques)

Laying hens: Day-old chicks

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Laying hens: Rearing period

--

Laying hens: Production period

--

Laying hens: Before slaughter at farm

--

Laying hens: At slaughter

--

Eggs at packing centre (flock based approach)

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Case definition

Laying hens: Day-old chicks

A positive case is a flock where 2 rows of sampling give a positive result for Salmonella Enteritidis or Typhimurium or ST like on at least one sample.

In France, we perform 2 rows of confirmation sampling, which means that if the first row is completely negative, we perform a second one.

Laying hens: Rearing period

A positive case is a flock where 2 rows of sampling give a positive result for Salmonella Enteritidis or Typhimurium or ST like on at least one sample.

In France, we perform 2 rows of confirmation sampling, which means that if the first row is completely negative, we perform a second one.

Laying hens: Production period

A positive case is a flock where 2 rows of sampling give a positive result for Salmonella Enteritidis or Typhimurium or ST like on at least one sample.

In France, we perform 2 rows of confirmation sampling, which means that if the first row is completely negative, we perform a second one.

Laying hens: Before slaughter at farm

A positive case is a flock where 2 rows of sampling give a positive result for Salmonella Enteritidis or Typhimurium or ST like on at least one sample.

In France, we perform 2 rows of confirmation sampling, which means that if the first row is completely negative, we perform a second one.

Laying hens: At slaughter

--

Eggs at packing centre (flock based approach)

--

Diagnostic/analytical methods used

Laying hens: Day-old chicks

Bacteriological method: NF U 47 100 and NF U 47 101

Laying hens: Rearing period

Bacteriological method: NF U 47 100 and NF U 47 101

Laying hens: Production period

Bacteriological method: NF U 47 100 and NF U 47 101

Laying hens: Before slaughter at farm

Bacteriological method: NF U 47 100 and NF U 47 101

Vaccination policy

Laying hens flocks

Vaccination is authorized with inactivated vaccines, and in few supervised cases with live vaccines.

Other preventive measures than vaccination in place

Laying hens flocks

The respect of good hygiene practices covered is mandatory to get a financial compensation in case of

infection.

Control program/mechanisms

The control program/strategies in place

Laying hens flocks

All the positive flocks of pullets are slaughtered; slaughter of positive flocks of laying hens is also mandatory to get a financial compensation. In all cases, products are destroyed or heat treated. Carcasses are heat treated if Salmonella is identified within muscles.

Recent actions taken to control the zoonoses

French regulations now take into account Typhimurium-like serotypes

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

Laying hens flocks

--

Notification system in place

Notification of SE, ST ST like to central competent authorities is mandatory.

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

Report on implementation of the Salmonella control plan in Gallus gallus flocks in 2009

The mandatory control programme for Salmonella in flocks of Gallus gallus species (chickens) implemented in France over the past 10 years is yielding results. In the reproductive phase, in which 5 serotypes are monitored and controlled, only 6 flocks have been found to be positive for Salmonella Enteritidis. The rate of infection with Salmonella Enteritidis and Salmonella Typhimurium of layers of eggs for consumption decreased by 19% between 2008 and 2009. Finally, in the first year of implementation of the programme in flocks of slaughter chickens, the number of flocks which tested positive (188) for Enteritidis and Typhimurium puts prevalence in France below target EU reduction levels, even though the total number of tested flocks was probably underestimated. The financial aid system mainly involves compensation for early slaughter of animals covered by the Health Charter. The reduction in the number of cases has thus led to a reduction in the overall budget allocated to the management programme. These results demonstrate the relevance of the strategies adopted to date, particularly concerning the number of samples and the criteria for accrediting producers as complying with the Health Charter

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

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Additional information

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D. Salmonella spp. in bovine animals

Monitoring system

Sampling strategy

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Methods of sampling (description of sampling techniques)

Animals at farm

--

Animals at slaughter (herd based approach)

--

Case definition

Animals at farm

--

Animals at slaughter (herd based approach)

--

Vaccination policy

--

Other preventive measures than vaccination in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

--

E. Salmonella spp. in ducks - breeding flocks and meat production flocks

Monitoring system

Sampling strategy

Breeding flocks

--

Meat production flocks

--

Methods of sampling (description of sampling techniques)

Breeding flocks: Day-old chicks

--

Breeding flocks: Rearing period

--

Breeding flocks: Production period

--

Meat production flocks: Day-old chicks

--

Meat production flocks: Rearing period

--

Meat production flocks: Before slaughter at farm

--

Meat production flocks: At slaughter (flock based approach)

--

Case definition

Breeding flocks: Day-old chicks

--

Breeding flocks: Rearing period

--

Breeding flocks: Production period

--

Meat production flocks: Day-old chicks

--

Meat production flocks: Rearing period

--

Meat production flocks: Before slaughter at farm

--

Meat production flocks: At slaughter (flock based approach)

--

Vaccination policy

Breeding flocks

--

Meat production flocks

--

Other preventive measures than vaccination in place

Breeding flocks

--

Meat production flocks

--

Control program/mechanisms

The control program/strategies in place

Breeding flocks

--

Meat production flocks

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

--

F. Salmonella spp. in geese - breeding flocks and meat production flocks

Monitoring system

Sampling strategy

Breeding flocks

--

Type of specimen taken

Imported feed material of animal origin

--

Methods of sampling (description of sampling techniques)

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

--

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

--

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

--

Meat production flocks: Day-old chicks

--

Meat production flocks: Rearing period

Meat production flocks: Before slaughter at farm

--

Meat production flocks: At slaughter (flock based approach)

--

Case definition

Breeding flocks: Day-old chicks

--

Breeding flocks: Rearing period

--

Breeding flocks: Production period

--

Meat production flocks: Day-old chicks

--

Meat production flocks: Rearing period

--

Meat production flocks: Before slaughter at farm

--

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Meat production flocks: At slaughter (flock based approach)

--

Vaccination policy

Breeding flocks

--

Meat production flocks

--

Other preventive measures than vaccination in place

Breeding flocks

--

Meat production flocks

--

Control program/mechanisms

The control program/strategies in place

Breeding flocks

--

Meat production flocks

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

Breeding flocks

--

Meat Production flocks

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

--

G. Salmonella spp. in pigs

Monitoring system

Sampling strategy

Breeding herds

--

Multiplying herds

--

Fattening herds

--

Methods of sampling (description of sampling techniques)

Breeding herds

--

Multiplying herds

--

Fattening herds at farm

--

Fattening herds at slaughterhouse (herd based approach)

--

Case definition

Breeding herds

--

Multiplying herds

--

Fattening herds at farm

--

Fattening herds at slaughterhouse (herd based approach)

--

Vaccination policy

Breeding herds

--

Multiplying herds

--

Fattening herds

--

Other preventive measures than vaccination in place

Breeding herds

--

Multiplying herds

--

Fattening herds

--

Control program/mechanisms

The control program/strategies in place

Breeding herds

--

Multiplying herds

--

Fattening herds

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

--

H. Salmonella spp. in turkey - breeding flocks and meat production flocks

Monitoring system

Sampling strategy

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

In accordance with regulations EC N°2160-2003 and 584-2008 all the flocks are sampled.

Meat production flocks

In accordance with regulations EC N°2160-2003 and 584-2008 all the flocks are sampled.

Frequency of the sampling

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

Every flock is sampled

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

At the age of 4 weeks and 2 weeks prior moving

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

Every 3 weeks

Meat production flocks: Before slaughter at farm

3 weeks prior to slaughter

Type of specimen taken

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

Internal linings of delivery boxes

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

Other: bootswabs, socks and chiffonettes

Meat production flocks: Day-old chicks

Internal linings of delivery boxes

Meat production flocks: Before slaughter at farm

Other: Other: bootswabs, socks and chiffonettes_

Methods of sampling (description of sampling techniques)

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Day-old chicks

In accordance with EU 584 2008

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

In accordance with EU 584 2008

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

In accordance with EU 584 2008

Meat production flocks: Day-old chicks

In accordance with EU 584 2008

Meat production flocks: Rearing period

In accordance with EU 584 2008

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Meat production flocks: Before slaughter at farm

In accordance with EU 584 2008

Meat production flocks: At slaughter (flock based approach)

In accordance with EU 584 2008

Case definition

A positive case is a flock where at least one sample was positive for SE or ST

Monitoring system

Case definition

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

A positive case is a flock where at least one sample was positive for SE or ST

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

A positive case is a flock where at least one sample was positive for SE or ST

Meat production flocks: Day-old chicks

A positive case is a flock where at least one sample was positive for SE or ST

Meat production flocks: Rearing period

A positive case is a flock where at least one sample was positive for SE or ST

Meat production flocks: Before slaughter at farm

A positive case is a flock where at least one sample was positive for SE or ST

Meat production flocks: At slaughter (flock based approach)

A positive case is a flock where at least one sample was positive for SE or ST

Diagnostic/analytical methods used

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Rearing period

Other: NFU 47 100 et 47101

Breeding flocks (separate elite, grand parent and parent flocks when necessary): Production period

Other: NFU 47 100 et 47101

Meat production flocks: Day-old chicks

Other: NFU 47 100 et 47101

Meat production flocks: Rearing period

Other: NFU 47 100 et 47101

Meat production flocks: Before slaughter at farm

Other: NFU 47 100 et 47101

Meat production flocks: At slaughter (flock based approach)

Other: NFU 47 100 et 47101

Vaccination policy

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

Elite vaccination is Forbidden, parents vaccination is authorised with inactivated vaccines only

Meat production flocks

--

Other preventive measures than vaccination in place

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

The respect of good hygiene practises and biosecurity covered by "charte hygiène" (incitative insurance) is mandatory to get financial compensation in case of infection.

Meat production flocks

Basic good hygiène practises are mandatory

Control program/mechanisms

The control program/strategies in place

Breeding flocks (separate elite, grand parent and parent flocks when necessary)

All the breeding flocks for SE or ST are slaughtered and their products are destroyed or heat-treated. Carcasses are heat-treated if salmonella is identified in the muscle.

Meat production flocks

Cleaning and disinfection is mandatory after any positive result. Heat treatment is mandatory if salmonella is found in muscles.

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

This program started on the 1st january 2010.

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

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Additional information

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Table Salmonella in breeding flocks of Gallus gallus

	Number of existing flocks	Source of information	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Hadar	S. Infantis	S. Typhimurium	S. Virchow	S. 1,4,[5],12:i:-
Gallus gallus (fowl) - parent breeding flocks for egg production line - during rearing period ¹⁾	77	CCA	Flock	77	0						
Gallus gallus (fowl) - parent breeding flocks for egg production line - adult ²⁾	130	CCA	Flock	130	1	1					
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - adult ³⁾											
Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period ⁴⁾	937	CCA	Flock	937	0						
Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult ⁵⁾	1313	CCA	Flock	1313	8	4			3	1	
Gallus gallus (fowl) - breeding flocks, unspecified - adult - at farm - Control and eradication programmes - official sampling ⁶⁾	1669	CCA	Flock	1669	27	5			3	1	
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - adult (including elite flocks) ⁷⁾	174	CCA	Flock	174	0						
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes - official sampling (including elite flocks) ⁸⁾	210	CCA	Flock	210	0						
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - adult (including elite flocks) ⁹⁾	52	CCA	Flock	52	0						

Table Salmonella in breeding flocks of Gallus gallus

	Number of existing flocks	Source of information	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Hadar	S. Infantis	S. Typhimurium	S. Virchow	S. 1,4,[5],12:i:-
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes - official sampling (including elite flocks)	38	CCA	Flock	38	0						

	Salmonella spp., unspecified
Gallus gallus (fowl) - parent breeding flocks for egg production line - during rearing period ¹⁾	
Gallus gallus (fowl) - parent breeding flocks for egg production line - adult ²⁾	
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - adult ³⁾	
Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period ⁴⁾	
Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult ⁵⁾	
Gallus gallus (fowl) - breeding flocks, unspecified - adult - at farm - Control and eradication programmes - official sampling ⁶⁾	18
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - adult (including elite flocks) ⁷⁾	

Table Salmonella in breeding flocks of Gallus gallus

	Salmonella spp., unspecified
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes - official sampling (including elite flocks) ⁸⁾	
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - adult (including elite flocks) ⁹⁾	
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes - official sampling (including elite flocks)	

Comments:

- 1) See foot note
- 2) See foot note
- 3)
- 4) See foot note
- 5) S virchow was identified in an empty herd. See foot note
- 6) Please note that this line is the sum of all breeding flocks created to specify the number of other serovars. For the detailed serotypes (18 unspecified serotypes) for breeding flocks (unspecified) see table (salmonella serovars in animals)
- 7) See foot note
- 8) See foot note

Table Salmonella in breeding flocks of Gallus gallus

Comments:

⁹⁾ See foot note

Footnote:

For grand-parent and parent flocks, only the official serotypes are reported. We have the detailed other serotypes (18) in breeding unspecified flocks. These 18 other serotypes are reported in details in "serovars table".

As indicated in the column "category", figures for grandparent breeding flocks includes figures for elite flocks and grand parent breeding flocks separated between rearing period and production (adult) period.

Only Salmonella Enteritidis and Salmonella Typhimurium are tested, except for the last row of sampling (either for pullets an adult breeders) where all the serotypes are tested.

All the existing flocks are tested.

Table Salmonella in other poultry

	Number of existing flocks	Source of information	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 1,4,5,12:i:-:1,2	S. 1,4,[5],12:i:-
Gallus gallus (fowl) - laying hens - during rearing period	2330	CCA	Flock	2330	4	1	2	1			
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - official and industry sampling ¹⁾	4013	CCA	Flock	4013	269	48	20	6	194	1	
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - sampling by industry	4013	CCA	Flock	4013	38	21	17				
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - official sampling - objective sampling ²⁾	4013	CCA	Flock	1770	22	17	5				
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - official sampling - suspect sampling ³⁾	4013	CCA	Flock	107	72	48	20	6		1	
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - official and industry sampling ⁴⁾	49024	CCA	Flock	49024	3498	61	149	21	3255	10	2
Turkeys - breeding flocks, unspecified - adult - at farm - Control and eradication programmes - official and industry sampling ⁵⁾	785	CCA	Flock	785	34			4	30		
Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - official and industry sampling ⁶⁾	9394	CCA	Flock	9394	726	14	42	3	665	2	
Turkeys - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling ⁷⁾	1019	CCA	Flock	1019	38	0	1	4	33		

Table Salmonella in other poultry

	Number of existing flocks	Source of information	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 1,4,5,12:-:1,2	S. 1,4,[5],12:-:-
Turkeys - grandparent breeding flocks - adult - at farm - Control and eradication programmes - official and industry sampling ⁸⁾	21	CCA	Flock	21	0						
Turkeys - grandparent breeding flocks - during rearing period - at farm - Control and eradication programmes - official and industry sampling ⁹⁾	26	CCA	Flock	26	0						
Turkeys - parent breeding flocks - adult - at farm - Control and eradication programmes - official and industry sampling ¹⁰⁾	764	CCA	Flock	764	4			4			
Turkeys - parent breeding flocks - during rearing period - at farm - Control and eradication programmes - official and industry sampling ¹¹⁾	429	CCA	Flock	429	1		1				

Comments:

- ¹⁾ 3 flocks infected by SE and ST. For the detailed results of S. unspecified see table salmonella serovars in animals.
- ²⁾ The official sampling objective targeted by EC regulation is reached. For total units tested and for positive units, our data collection system doesn't allow us to distinguish "suspect sampling" item b, point 2.1 of the annex of Reg. 1168/2006 and objective samplings item a.
- ³⁾ 3 flocks are positive both for SE and ST. All the suspect flocks are tested as mentioned in EC regulation. All detected as positive by the operators are considered as suspect flocks and confirmed (item "e" of point 2.1 of annex of Reg/1168.2006). The number of units tested is an evaluation, because we don't have the data collection system to distinguish precisely the five categories (a, b, c, d, e) of official control (Point 2.1 Annex of Reg (EC) N°1168/2006). The categories reported here are "c", "d" and "e". For information, c = tested.
- ⁴⁾ The number of existing flocks would be more between 75 000 and 100 000 flocks (estimation). 100% of flocks are tested. We still do not receive all the negative analyses. The national data collection system will be fully reliable and available in 2012. For the detailed results of S. unspecified see table salmonella serovars in animals
- ⁵⁾ The detailed figures for parents and grand parents are detailed only for SE, ST and ST like. For the detailed results of S. unspecified see table salmonella serovars in animals

Table Salmonella in other poultry

Comments:

- 6) For the detailed results of *S. unspecified* see table salmonella serovars in animals
- 7) This line is the sum of all turkey breeding flocks presented above. The detailed serotypes are in the specific table.
- 8) Includes pedigree flocks. The result reported here only for SE ST and ST like. For others serovars, the detail are reported in breeding unspecified flocks
- 9) Includes pedigree flocks. The result reported here only for SE ST and ST like. For others serovars, the detail are reported in breeding unspecified flocks.
- 10) The result reported here only for SE ST and ST like. For others serovars, the detail are reported in breeding unspecified flocks
- 11) The result reported here only for SE ST and ST like. For others serovars, the detail are reported in breeding unspecified flocks

Footnote:

All the "unspecified serotypes" have been reported in details in the table "salmonella serovars in animals".
The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Turkeys - parent breeding flocks - adult - at farm - Control and eradication programmes - official and industry sampling	Number of existing flocks	612	764
	Turkeys - parent breeding flocks - during rearing period - at farm - Control and eradication programmes - official and industry sampling	Number of existing flocks	368	429
	Turkeys - grandparent breeding flocks - during rearing period - at farm - Control and eradication programmes - official and industry sampling	Number of existing flocks	18	26
	Turkeys - breeding flocks, unspecified - adult - at farm - Control and eradication programmes - official and industry sampling	Number of existing flocks	633	785
	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - official and industry sampling	Number of existing flocks	2775	4013

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - official sampling - objective sampling	Number of existing flocks	1770	4013
	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - sampling by industry	Number of existing flocks	2775	4013
	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - official sampling - suspect sampling	Number of existing flocks	2775	4013

2.1.5 Salmonella in feedingstuffs

Table Salmonella in compound feedingstuffs

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Agona	S. Anatum	S. Derby
Compound feedingstuffs for cattle - final product - Surveillance - official controls	DGCCRF	Batch	25	2	0						
Compound feedingstuffs for cattle - final product - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	348	0						
Compound feedingstuffs for pigs - final product - at feed mill - Monitoring - official sampling	DGAL	Batch	25	71	0						
Compound feedingstuffs for pigs - final product - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	661	2		1				
Compound feedingstuffs for poultry (non specified) - final product - at feed mill - Monitoring - official sampling	DGAL	Batch	25	78	0						
Compound feedingstuffs for poultry (non specified) - final product - at feed mill - domestic production - Monitoring - industry sampling	¹⁾	Batch	25	1	0						
Compound feedingstuffs for poultry - breeders - final product - Monitoring - official sampling	DGAL	Batch	25	19	0						
Compound feedingstuffs for poultry - breeders - final product - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	717	0						
Compound feedingstuffs for poultry - broilers - final product - Monitoring - official sampling	DGCCRF	Batch	25	114	0						

Table Salmonella in compound feedingstuffs

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Agona	S. Anatum	S. Derby
Compound feedingstuffs for poultry - broilers - final product - at feed mill - domestic production - Monitoring - official sampling		Batch	25	32	0						
Compound feedingstuffs for poultry - laying hens - final product - Monitoring - official sampling	DGCCRF	Batch	25	84	0						
Compound feedingstuffs for poultry - laying hens - final product - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	1147	13				1	1	1
Compound feedingstuffs for sheep - final product - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	7	0						
Compound feedingstuffs for turkeys - final product - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	14	0						
Pet food - final product - canned products - at processing plant - Monitoring - official sampling	DGAL	Batch	25	15	0						

	S. Essen	S. Hadar	S. Infantis	S. Kottbus	S. Mbandaka	S. Montevideo	S. Senftenberg
Compound feedingstuffs for cattle - final product - Surveillance - official controls							
Compound feedingstuffs for cattle - final product - at feed mill - domestic production - Monitoring - industry sampling							

Table Salmonella in compound feedingstuffs

	S. Essen	S. Hadar	S. Infantis	S. Kottbus	S. Mbandaka	S. Montevideo	S. Senftenberg
Compound feedingstuffs for pigs - final product - at feed mill - Monitoring - official sampling							
Compound feedingstuffs for pigs - final product - at feed mill - domestic production - Monitoring - industry sampling					1		
Compound feedingstuffs for poultry (non specified) - final product - at feed mill - Monitoring - official sampling							
Compound feedingstuffs for poultry (non specified) - final product - at feed mill - domestic production - Monitoring - industry sampling ¹⁾							
Compound feedingstuffs for poultry - breeders - final product - Monitoring - official sampling							
Compound feedingstuffs for poultry - breeders - final product - at feed mill - domestic production - Monitoring - industry sampling							
Compound feedingstuffs for poultry - broilers - final product - Monitoring - official sampling							
Compound feedingstuffs for poultry - broilers - final product - at feed mill - domestic production - Monitoring - official sampling							
Compound feedingstuffs for poultry - laying hens - final product - Monitoring - official sampling							
Compound feedingstuffs for poultry - laying hens - final product - at feed mill - domestic production - Monitoring - industry sampling	1	1	1	1	1	2	3

Table Salmonella in compound feedingstuffs

	S. Essen	S. Hadar	S. Infantis	S. Kottbus	S. Mbandaka	S. Montevideo	S. Senftenberg
Compound feedingstuffs for sheep - final product - at feed mill - domestic production - Monitoring - industry sampling							
Compound feedingstuffs for turkeys - final product - at feed mill - domestic production - Monitoring - industry sampling							
Pet food - final product - canned products - at processing plant - Monitoring - official sampling							

Comments:

¹⁾ ducks

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 marine animal origin - fish meal	DGAL	Batch	25	51	0			

Table Salmonella in other feed matter

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Banana	S. Cerro	S. Coeln
Feed material of cereal grain origin - barley derived - Monitoring - official sampling	DGCCRF	Batch	25	2	0						
Feed material of cereal grain origin - maize - Monitoring - official sampling	DGCCRF	Batch	25	8	0						
Feed material of cereal grain origin - maize - at feed mill - Monitoring - industry sampling		Batch	25	40	0						
Feed material of cereal grain origin - maize - derived - Monitoring - official sampling	DGCCRF	Batch	25	1	0						
Feed material of cereal grain origin - wheat derived - Monitoring - official sampling	DGCCRF	Batch	25	25	0						
Feed material of cereal grain origin - wheat derived - at feed mill - Monitoring - industry sampling		Batch	25	227	1						1
Feed material of land animal origin - dairy products - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	30	0						
Feed material of oil seed or fruit origin - linseed derived - at feed mill - Monitoring - industry sampling		Batch	25	12	0						
Feed material of oil seed or fruit origin - linseed derived - at feed mill - Monitoring - official sampling		Batch	25	11	0						
Feed material of oil seed or fruit origin - palm kernel derived - at feed mill - Monitoring - official sampling	DGCCRF	Batch	25	1	0						

Table Salmonella in other feed matter

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Banana	S. Cerro	S. Coeln
Feed material of oil seed or fruit origin - rape seed derived - at feed mill - Monitoring - official sampling	DGCCRF/DGAL	Batch	25	52	1						
Feed material of oil seed or fruit origin - rape seed derived - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	160	0						
Feed material of oil seed or fruit origin - soya (bean) derived - at feed mill - Monitoring - official sampling	DGCCRF	Batch	25	79	1						
Feed material of oil seed or fruit origin - soya (bean) derived - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	450	5				1	1	
Feed material of oil seed or fruit origin - sunflower seed derived - at feed mill - Monitoring - official sampling	DGCCRF	Batch	25	20	1						
Feed material of oil seed or fruit origin - sunflower seed derived - at feed mill - domestic production - Monitoring - industry sampling		Batch	25	118	1		1				
Other feed material - Monitoring - official sampling	DGCCRF	Batch	25	8	0						
Other feed material - sugarcane and byproducts - at feed mill - Monitoring - industry sampling		Batch	25	14	0						

Table Salmonella in other feed matter

	S. Cubana	S. Livingstone	S. London	S. Montevideo	S. Senftenberg	S. Tennessee
Feed material of cereal grain origin - barley derived - Monitoring - official sampling						
Feed material of cereal grain origin - maize - Monitoring - official sampling						
Feed material of cereal grain origin - maize - at feed mill - Monitoring - industry sampling						
Feed material of cereal grain origin - maize - derived - Monitoring - official sampling						
Feed material of cereal grain origin - wheat derived - Monitoring - official sampling						
Feed material of cereal grain origin - wheat derived - at feed mill - Monitoring - industry sampling						
Feed material of land animal origin - dairy products - at feed mill - domestic production - Monitoring - industry sampling						
Feed material of oil seed or fruit origin - linseed derived - at feed mill - Monitoring - industry sampling						
Feed material of oil seed or fruit origin - linseed derived - at feed mill - Monitoring - official sampling						
Feed material of oil seed or fruit origin - palm kernel derived - at feed mill - Monitoring - official sampling						

Table Salmonella in other feed matter

	S. Cubana	S. Livingstone	S. London	S. Montevideo	S. Senftenberg	S. Tennessee
Feed material of oil seed or fruit origin - rape seed derived - at feed mill - Monitoring - official sampling			1			
Feed material of oil seed or fruit origin - rape seed derived - at feed mill - domestic production - Monitoring - industry sampling						
Feed material of oil seed or fruit origin - soya (bean) derived - at feed mill - Monitoring - official sampling	1					
Feed material of oil seed or fruit origin - soya (bean) derived - at feed mill - domestic production - Monitoring - industry sampling			1	1	1	
Feed material of oil seed or fruit origin - sunflower seed derived - at feed mill - Monitoring - official sampling						1
Feed material of oil seed or fruit origin - sunflower seed derived - at feed mill - domestic production - Monitoring - industry sampling						
Other feed material - Monitoring - official sampling						
Other feed material - sugarcane and byproducts - at feed mill - Monitoring - industry sampling						

2.1.6 Salmonella serovars and phagetype distribution

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.

Table Salmonella serovars in animals

Serovar	Cattle (bovine animals)				Pigs				Gallus gallus (fowl)				Other poultry
	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program
Sources of isolates													
Number of isolates in the laboratory													
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of isolates per serovar													
Other serovars													
S. 1,4,[5],12:-:-													
S. 1,4,[5],12:-:1,2													
S. 1,4,[5],12:i:-													
S. Agona													
S. Albany													

Table Salmonella serovars in animals

Serovar	Cattle (bovine animals)				Pigs				Gallus gallus (fowl)				Other poultry	
	Sources of isolates	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program
Number of isolates in the laboratory														
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of isolates per serovar														
S. Anatum														
S. Bareilly														
S. Blockley														
S. Braenderup														
S. Brandenburg														
S. Bredeney														
S. Cubana														
S. Derby														
S. Enteritidis														
S. Hadar														
S. Havana														

Table Salmonella serovars in animals

Serovar	Cattle (bovine animals)				Pigs				Gallus gallus (fowl)				Other poultry	
	Sources of isolates	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program
Number of isolates in the laboratory														
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of isolates per serovar														
S. Indiana														
S. Infantis														
S. Kedougou														
S. Kentucky														
S. Kottbus														
S. Lexington														
S. Lille														
S. Livingstone														
S. Mbandaka														
S. Meleagridis														
S. Montevideo														

Table Salmonella serovars in animals

Serovar	Cattle (bovine animals)				Pigs				Gallus gallus (fowl)				Other poultry
	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program
Sources of isolates													
Number of isolates in the laboratory													
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of isolates per serovar													
S. Muenchen													
S. Napoli													
S. Newport													
S. Ohio													
S. Orion													
S. Panama													
S. Paratyphi B var. Java													
S. Rissen													
S. Saintpaul													
S. Schwarzengrund													
S. Senftenberg													

Table Salmonella serovars in animals

Serovar	Cattle (bovine animals)				Pigs				Gallus gallus (fowl)				Other poultry	
	Sources of isolates	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program
Number of isolates in the laboratory														
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of isolates per serovar														
S. Stanleyville														
S. Tennessee														
S. Thompson														
S. Typhimurium														
S. Virchow														

Table Salmonella serovars in animals

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling	
	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring
Sources of isolates													
Number of isolates in the laboratory				26				3498				279	
Number of isolates serotyped	0	0	0	26	0	0	0	3498	0	0	0	279	0
Number of isolates per serovar													
Other serovars				1				310				54	
S. 1,4,[5],12:-:-								2					
S. 1,4,[5],12:-:1,2								10					
S. 1,4,[5],12:i:-								21					
S. Agona								78				3	
S. Albany								1				1	
S. Anatum								960				1	
S. Bareilly								6					
S. Blockley								7					
S. Braenderup								8				10	

Table Salmonella serovars in animals

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling	
	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring
Sources of isolates													
Number of isolates in the laboratory				26				3498				279	
Number of isolates serotyped	0	0	0	26	0	0	0	3498	0	0	0	279	0
Number of isolates per serovar													
S. Brandenburg								2				2	
S. Bredeney								4					
S. Cubana								1				1	
S. Derby								32					
S. Enteritidis				5				61				48	
S. Hadar								55					
S. Havana								2					
S. Indiana								138				1	
S. Infantis								32				10	
S. Kedougou								71					

Table Salmonella serovars in animals

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling	
	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring
Sources of isolates													
Number of isolates in the laboratory				26				3498				279	
Number of isolates serotyped	0	0	0	26	0	0	0	3498	0	0	0	279	0
Number of isolates per serovar													
S. Kentucky								1					
S. Kottbus								31					
S. Lexington								2				2	
S. Lille								22					
S. Livingstone								679				9	
S. Mbandaka				3				234				27	
S. Meleagridis								6					
S. Montevideo				1				114				5	
S. Muenchen								10					
S. Napoli				4				69				5	

Table Salmonella serovars in animals

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling	
	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring
Sources of isolates													
Number of isolates in the laboratory				26				3498				279	
Number of isolates serotyped	0	0	0	26	0	0	0	3498	0	0	0	279	0
Number of isolates per serovar													
S. Newport								39				2	
S. Ohio								18				2	
S. Orion								2				2	
S. Panama				1				8					
S. Paratyphi B var. Java								4					
S. Rissen								2				4	
S. Saintpaul								32					
S. Schwarzengrund								2				8	
S. Senftenberg				8				173				29	
S. Stanleyville								12					

Table Salmonella serovars in animals

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling			Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - official and industry sampling				Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling		
	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring
Sources of isolates													
Number of isolates in the laboratory				26				3498				279	
Number of isolates serotyped	0	0	0	26	0	0	0	3498	0	0	0	279	0
Number of isolates per serovar													
S. Tennessee								12				9	
S. Thompson								2				1	
S. Typhimurium				3				149				39	
S. Virchow								74				4	

Table Salmonella serovars in animals

Serovar	Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling		Turkeys - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - official and industry sampling			
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates										
Number of isolates in the laboratory			35				714			
Number of isolates serotyped	0	0	35	0	0	0	714	0	0	0
Number of isolates per serovar										
Other serovars							25			
S. 1,4,[5],12:-:-							3			
S. 1,4,[5],12:-:1,2							2			
S. 1,4,[5],12:i:-			4							
S. Agona			1				36			
S. Albany										
S. Anatum							10			
S. Bareilly										
S. Blockley										
S. Braenderup										

Table Salmonella serovars in animals

Serovar	Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling		Turkeys - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - official and industry sampling			
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates										
Number of isolates in the laboratory			35				714			
Number of isolates serotyped	0	0	35	0	0	0	714	0	0	0
Number of isolates per serovar										
S. Brandenburg							1			
S. Bredeney							51			
S. Cubana							3			
S. Derby			4				89			
S. Enteritidis							14			
S. Hadar										
S. Havana							54			
S. Indiana			1				84			
S. Infantis							5			
S. Kedougou							8			

Table Salmonella serovars in animals

Serovar	Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling		Turkeys - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - official and industry sampling			
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates										
Number of isolates in the laboratory			35				714			
Number of isolates serotyped	0	0	35	0	0	0	714	0	0	0
Number of isolates per serovar										
S. Kentucky										
S. Kottbus							24			
S. Lexington										
S. Lille										
S. Livingstone							9			
S. Mbandaka			3				19			
S. Meleagridis										
S. Montevideo			4				11			
S. Muenchen										
S. Napoli			8				18			

Table Salmonella serovars in animals

Serovar	Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling		Turkeys - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - official and industry sampling			
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates										
Number of isolates in the laboratory			35				714			
Number of isolates serotyped	0	0	35	0	0	0	714	0	0	0
Number of isolates per serovar										
S. Newport							12			
S. Ohio			2				1			
S. Orion										
S. Panama										
S. Paratyphi B var. Java										
S. Rissen							1			
S. Saintpaul							31			
S. Schwarzengrund							1			
S. Senftenberg			6				159			
S. Stanleyville										

Table Salmonella serovars in animals

Serovar	Gallus gallus (fowl) - laying hens - at farm - Control and eradication programmes - official and industry sampling		Turkeys - breeding flocks, unspecified - at farm - Control and eradication programmes - official and industry sampling				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - official and industry sampling			
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates										
Number of isolates in the laboratory			35				714			
Number of isolates serotyped	0	0	35	0	0	0	714	0	0	0
Number of isolates per serovar										
S. Tennessee										
S. Thompson										
S. Typhimurium			2				42			
S. Virchow							1			

Table Salmonella serovars in food

Serovar	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin		Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Monitoring - official sampling		Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	
Sources of isolates														
Number of isolates in the laboratory											7	0	1	
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	7	0	1	
Number of isolates per serovar														
Other serovars														
S. 1,4,[5],12:i:-			0											
S. Agona														
S. Anatum			0											
S. Brandenburg														
S. Bredeney														
S. Derby			0											

Table Salmonella serovars in food

Serovar	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin		Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Monitoring - official sampling		Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	
Sources of isolates														
Number of isolates in the laboratory												7	0	1
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Number of isolates per serovar														
S. Enteritidis												1		
S. Ferruch														
S. Hadar														
S. Indiana												4		
S. Infantis			0											
S. Lille														
S. Livingstone													0	1
S. Muenchen												1		

Table Salmonella serovars in food

Serovar	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin		Meat from broilers (Gallus gallus) - carcass - at slaughterhouse - Monitoring - official sampling		Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	
Sources of isolates														
Number of isolates in the laboratory												7	0	1
Number of isolates serotyped	0	0	0	0	0	0	0	0	0	0	0	7	0	1
Number of isolates per serovar														
S. Paratyphi B														
S. Saintpaul												1		
S. Typhimurium			0											

Table Salmonella serovars in food

Serovar	Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	Meat from broilers (Gallus gallus) - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalope)		Meat from broilers (Gallus gallus) - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)		Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - at retail - domestic production - Monitoring - official sampling		Meat from pig - fresh - chilled - at retail - domestic production - Monitoring - official sampling		Meat from turkey - carcass - at slaughterhouse - Monitoring - official sampling		Meat from turkey - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
		Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring
Sources of isolates													
Number of isolates in the laboratory	0	1	0	2	0	5	0	7		6	0	1	0
Number of isolates serotyped	0	1	0	2	0	5	0	7	0	6	0	1	0
Number of isolates per serovar													
Other serovars					0	1							
S. 1,4,[5],12:i:-							0	1		1			
S. Agona													
S. Anatum					0	1	0	1		1			
S. Brandenburg													
S. Bredeney													
S. Derby							0	3		1			0
S. Enteritidis							0			1			

Table Salmonella serovars in food

Serovar	Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	Meat from broilers (Gallus gallus) - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalope)		Meat from broilers (Gallus gallus) - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)		Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - at retail - domestic production - Monitoring - official sampling		Meat from pig - fresh - chilled - at retail - domestic production - Monitoring - official sampling		Meat from turkey - carcass - at slaughterhouse - Monitoring - official sampling		Meat from turkey - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
		Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring
Sources of isolates													
Number of isolates in the laboratory	0	1	0	2	0	5	0	7		6	0	1	0
Number of isolates serotyped	0	1	0	2	0	5	0	7	0	6	0	1	0
Number of isolates per serovar													
S. Ferruch													
S. Hadar													
S. Indiana			0	1	0	2	0			2	0	1	
S. Infantis								1					
S. Lille	0	1											
S. Livingstone			0	1									
S. Muenchen													
S. Paratyphi B					0	1							

Table Salmonella serovars in food

Serovar	Meat from broilers (Gallus gallus) - carcass - chilled - at retail - domestic production - Monitoring - official sampling	Meat from broilers (Gallus gallus) - fresh - skinned - at retail - domestic production - Monitoring - official sampling (escalope)		Meat from broilers (Gallus gallus) - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)		Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - at retail - domestic production - Monitoring - official sampling		Meat from pig - fresh - chilled - at retail - domestic production - Monitoring - official sampling		Meat from turkey - carcass - at slaughterhouse - Monitoring - official sampling		Meat from turkey - carcass - chilled - at retail - domestic production - Monitoring - official sampling	
		Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring
Sources of isolates													
Number of isolates in the laboratory	0	1	0	2	0	5	0	7		6	0	1	0
Number of isolates serotyped	0	1	0	2	0	5	0	7	0	6	0	1	0
Number of isolates per serovar													
S. Saintpaul													
S. Typhimurium								1					

Table Salmonella serovars in food

Serovar	Meat from turkey - fresh - skinned - at retail - domestic production - Monitoring - official sampling		Meat from turkey - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)		Meat from turkey - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling (roast)		Meat from turkey - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance
Sources of isolates								
Number of isolates in the laboratory	1	0	19	3	3	0	16	
Number of isolates serotyped	1	0	19	0	3	5	16	0
Number of isolates per serovar								
Other serovars						5	5	
S. 1,4,[5],12:i:-								
S. Agona				0	1			
S. Anatum		0	2					
S. Brandenburg		0	1			0	1	
S. Bredeney						0	4	
S. Derby	1	0	2					
S. Enteritidis								
S. Ferruch		0	1					

Table Salmonella serovars in food

Serovar	Meat from turkey - fresh - skinned - at retail - domestic production - Monitoring - official sampling		Meat from turkey - fresh - with skin - at retail - domestic production - Monitoring - official sampling (legs)		Meat from turkey - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling (roast)		Meat from turkey - mechanically separated meat (MSM) - hard-type - at processing plant - domestic production - Monitoring - official sampling	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance
Sources of isolates								
Number of isolates in the laboratory	1	0	19	3	3	0	16	
Number of isolates serotyped	1	0	19	0	3	5	16	0
Number of isolates per serovar								
S. Hadar		0	2			0	1	
S. Indiana		0	9	0	1	0	4	
S. Infantis								
S. Lille								
S. Livingstone								
S. Muenchen								
S. Paratyphi B								
S. Saintpaul		0	1	0	1			
S. Typhimurium		0	1			0	1	

Table Salmonella serovars in food

Footnote:

Monitoring plan described in table "salmonella in red meat and poultry meat"
The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates in the laboratory	Meat from pig - fresh - chilled - Monitoring		7
	Number of isolates serotyped	Meat from pig - Monitoring	7	0
	Salmonella - S. Derby	Meat from pig - Monitoring	3	0
	Salmonella - S. 1,4,[5],12:i:-	Meat from pig - fresh - chilled - Monitoring		1
	Salmonella - S. Derby	Meat from pig - fresh - chilled - Monitoring		3
	Salmonella - S. 1,4,[5],12:i:-	Meat from pig - Monitoring	1	0
	Salmonella - S. Anatum	Meat from pig - Monitoring	1	0
	Number of isolates serotyped	Meat from pig - fresh - chilled - Monitoring	0	7
	Salmonella - S. Anatum	Meat from pig - fresh - chilled - Monitoring		1
	Salmonella - S. Typhimurium	Meat from pig - fresh - chilled - Monitoring		1
	Salmonella - S. Infantis	Meat from pig - Monitoring	1	0
	Salmonella - S. Typhimurium	Meat from pig - Monitoring	1	0
	Salmonella - S. Infantis	Meat from pig - fresh - chilled - Monitoring		1

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates serotyped	Meat from pig - Monitoring	6	7
	Salmonella - S. Infantis	Meat from pig - Monitoring		1
	Salmonella - S. 1,4,[5],12:i:-	Meat from pig - Monitoring		1
	Salmonella - S. Anatum	Meat from pig - Monitoring		1
	Number of isolates serotyped	Meat from pig - Monitoring	0	6
	Salmonella - S. Typhimurium	Meat from pig - Monitoring		1
	Salmonella - S. Derby	Meat from pig - Monitoring		3
	Number of isolates serotyped	Meat from pig - fresh - chilled - Surveillance		0
	Number of isolates serotyped	Meat from pig - fresh - chilled - Monitoring		0
	Number of isolates serotyped	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring	0	16
	Number of isolates serotyped	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	16	5
	Number of isolates in the laboratory	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		0
	Number of isolates in the laboratory	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		16
	Salmonella - S. Brandenburg	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		1

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Salmonella - S. Hadar	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		1
	Salmonella - S. Bredeney	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	4	0
	Salmonella - Other serovars	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		5
	Salmonella - S. Typhimurium	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	1	0
	Salmonella - S. Indiana	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	4	0
	Salmonella - S. Indiana	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		4
	Salmonella - S. Typhimurium	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		1
	Salmonella - S. Bredeney	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		4
	Salmonella - S. Hadar	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	1	0
	Salmonella - S. Brandenburg	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	1	0
	Salmonella - S. Bredeney	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		4
	Number of isolates serotyped	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	12	16

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Salmonella - S. Typhimurium	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		1
	Number of isolates serotyped	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance	0	12
	Salmonella - S. Brandenburg	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		1
	Salmonella - S. Indiana	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		4
	Salmonella - S. Hadar	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		1
	Salmonella - Other serovars	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		5
	Number of isolates serotyped	Meat from turkey - mechanically separated meat (MSM) - hard-type - Surveillance		0
	Number of isolates serotyped	Meat from turkey - mechanically separated meat (MSM) - hard-type - Monitoring		0
	Salmonella - S. Agona	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Monitoring		1
	Number of isolates in the laboratory	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Monitoring		3
	Number of isolates serotyped	Meat from turkey - fresh - with skin - Surveillance	3	0
	Salmonella - S. Agona	Meat from turkey - fresh - with skin - Surveillance	1	0
	Salmonella - S. Saintpaul	Meat from turkey - fresh - with skin - Surveillance	1	0

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates serotyped	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Monitoring	0	3
	Salmonella - S. Saintpaul	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Monitoring		1
	Salmonella - S. Indiana	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Monitoring		1
	Salmonella - S. Indiana	Meat from turkey - fresh - with skin - Surveillance	1	0
	Number of isolates serotyped	Meat from turkey - fresh - with skin - Surveillance	0	3
	Number of isolates in the laboratory	Meat from turkey - fresh - with skin - Surveillance		3
	Salmonella - S. Saintpaul	Meat from turkey - fresh - with skin - Surveillance		1
	Salmonella - S. Agona	Meat from turkey - fresh - with skin - Surveillance		1
	Salmonella - S. Indiana	Meat from turkey - fresh - with skin - Surveillance		1
	Number of isolates serotyped	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Monitoring		0
	Number of isolates serotyped	Meat from turkey - meat preparation - intended to be eaten cooked - chilled - Surveillance		0
	Number of isolates serotyped	Meat from turkey - fresh - with skin - Monitoring	0	19
	Salmonella - S. Indiana	Meat from turkey - fresh - with skin - Monitoring		9
	Number of isolates in the laboratory	Meat from turkey - fresh - skinned - Surveillance	19	0

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Salmonella - S. Brandenburg	Meat from turkey - fresh - with skin - Monitoring		1
	Salmonella - S. Brandenburg	Meat from turkey - fresh - skinned - Surveillance	1	0
	Number of isolates serotyped	Meat from turkey - fresh - skinned - Surveillance	19	0
	Salmonella - S. Ferruch	Meat from turkey - fresh - skinned - Surveillance	1	0
	Salmonella - S. Derby	Meat from turkey - fresh - skinned - Surveillance	2	0
	Salmonella - S. Indiana	Meat from turkey - fresh - skinned - Surveillance	9	0
	Salmonella - S. Hadar	Meat from turkey - fresh - with skin - Monitoring		2
	Salmonella - S. Typhimurium	Meat from turkey - fresh - with skin - Monitoring		1
	Number of isolates in the laboratory	Meat from turkey - fresh - with skin - Monitoring		19
	Salmonella - S. Anatum	Meat from turkey - fresh - skinned - Surveillance	2	0
	Salmonella - S. Derby	Meat from turkey - fresh - with skin - Monitoring		2
	Salmonella - S. Anatum	Meat from turkey - fresh - with skin - Monitoring		2
	Salmonella - S. Hadar	Meat from turkey - fresh - skinned - Surveillance	2	0
	Salmonella - S. Saintpaul	Meat from turkey - fresh - with skin - Monitoring		1
	Salmonella - S. Saintpaul	Meat from turkey - fresh - skinned - Surveillance	1	0
	Salmonella - S. Ferruch	Meat from turkey - fresh - with skin - Monitoring		1

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Salmonella - S. Typhimurium	Meat from turkey - fresh - skinned - Surveillance	1	0
	Number of isolates serotyped	Meat from turkey - fresh - skinned - Surveillance	4	19
	Salmonella - S. Ferruch	Meat from turkey - fresh - skinned - Surveillance		1
	Salmonella - S. Hadar	Meat from turkey - fresh - skinned - Surveillance		2
	Salmonella - S. Derby	Meat from turkey - fresh - skinned - Surveillance		2
	Salmonella - S. Brandenburg	Meat from turkey - fresh - skinned - Surveillance		1
	Salmonella - S. Indiana	Meat from turkey - fresh - skinned - Surveillance		9
	Salmonella - S. Typhimurium	Meat from turkey - fresh - skinned - Surveillance		1
	Salmonella - S. Saintpaul	Meat from turkey - fresh - skinned - Surveillance		1
	Salmonella - S. Anatum	Meat from turkey - fresh - skinned - Surveillance		2
	Number of isolates serotyped	Meat from turkey - fresh - skinned - Surveillance	0	4
	Number of isolates in the laboratory	Meat from turkey - fresh - skinned - Surveillance	3	19
	Number of isolates in the laboratory	Meat from turkey - fresh - skinned - Surveillance		3
	Number of isolates serotyped	Meat from turkey - fresh - with skin - Monitoring		0
	Number of isolates serotyped	Meat from turkey - fresh - with skin - Surveillance		0
Number of isolates serotyped	Meat from turkey - carcass - chilled - Surveillance	1	0	

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates in the laboratory	Meat from turkey - fresh - skinned - Monitoring		1
	Number of isolates in the laboratory	Meat from turkey - carcass - Monitoring	30	6
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	111	1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring	49	5
	Number of isolates serotyped	Meat from turkey - fresh - skinned - Monitoring	0	1
	Salmonella - S. Derby	Meat from turkey - carcass - chilled - Surveillance	1	0
	Number of isolates in the laboratory	Meat from turkey - carcass - chilled - Monitoring	17	1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - skinned - Monitoring	110	1
	Number of isolates in the laboratory	Meat from turkey - carcass - chilled - Surveillance	94	0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - Monitoring	67	7
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - with skin - Monitoring	109	2
	Salmonella - S. Derby	Meat from turkey - fresh - skinned - Monitoring		1
	Number of isolates serotyped	Meat from turkey - carcass - chilled - Surveillance	0	1
	Number of isolates in the laboratory	Meat from turkey - carcass - chilled - Surveillance		94
	Salmonella - S. Derby	Meat from turkey - carcass - chilled - Surveillance		1

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates serotyped	Meat from turkey - fresh - skinned - Monitoring		0
	Number of isolates serotyped	Meat from turkey - fresh - skinned - Surveillance		0
	Salmonella - S. Indiana	Meat from turkey - carcass - Surveillance	1	0
	Number of isolates in the laboratory	Meat from turkey - carcass - chilled - Monitoring		17
	Number of isolates in the laboratory	Meat from turkey - carcass - Surveillance	17	0
	Number of isolates serotyped	Meat from turkey - carcass - chilled - Monitoring	0	1
	Number of isolates serotyped	Meat from turkey - carcass - Surveillance	1	0
	Salmonella - S. Indiana	Meat from turkey - carcass - chilled - Monitoring		1
	Number of isolates in the laboratory	Meat from turkey - carcass - Surveillance		17
	Salmonella - S. Indiana	Meat from turkey - carcass - Surveillance		1
	Number of isolates serotyped	Meat from turkey - carcass - Surveillance	0	1
	Number of isolates serotyped	Meat from turkey - carcass - chilled - Monitoring		0
	Number of isolates serotyped	Meat from turkey - carcass - chilled - Surveillance		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	5	0
	Salmonella - S. Derby	Meat from turkey - carcass - Monitoring		1

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates serotyped	Meat from turkey - carcass - Monitoring	0	6
	Salmonella - S. Enteritidis	Meat from turkey - carcass - Monitoring		1
	Salmonella - S. Enteritidis	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance		0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	30	0
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	2	0
	Salmonella - S. Anatum	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	1	0
	Salmonella - S. Derby	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	1	0
	Salmonella - S. Anatum	Meat from turkey - carcass - Monitoring		1
	Number of isolates in the laboratory	Meat from turkey - carcass - Monitoring		30
	Salmonella - S. 1,4,[5],12:i:-	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	1	0
	Salmonella - S. 1,4,[5],12:i:-	Meat from turkey - carcass - Monitoring		1
	Salmonella - S. Indiana	Meat from turkey - carcass - Monitoring		2
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	3	5
	Salmonella - S. 1,4,[5],12:i:-	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance		1

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Salmonella - S. Derby	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance		1
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance		2
	Salmonella - S. Anatum	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance		1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance		30
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance	0	3
	Number of isolates serotyped	Meat from turkey - carcass - Monitoring		0
	Number of isolates serotyped	Meat from turkey - carcass - Surveillance		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring	0	5
	Salmonella - Other serovars	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring		1
	Salmonella - S. Paratyphi B	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring		1
	Salmonella - Other serovars	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance	1	0
	Salmonella - S. Anatum	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring		1
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance	2	0

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring		2
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance	5	0
	Salmonella - S. Paratyphi B	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance	1	0
	Salmonella - S. Anatum	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance	1	0
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance		2
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance	0	5
	Salmonella - S. Paratyphi B	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance		1
	Salmonella - S. Anatum	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance		1
	Salmonella - Other serovars	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance		1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance	49	0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring		49
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance		49
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Monitoring		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - hard-type - Surveillance		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance	2	0

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance	1	0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance	109	0
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance	1	0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - with skin - Monitoring		109
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - fresh - with skin - Monitoring		1
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - fresh - with skin - Monitoring		1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - with skin - Monitoring	0	2
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance		1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance	0	2
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance		109
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance		1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - with skin - Surveillance		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - with skin - Monitoring		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - chilled - Surveillance	1	0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - chilled - Surveillance	110	0
Salmonella - S. Lille	Meat from broilers (Gallus gallus) - carcass - chilled - Surveillance	1	0	

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - skinned - Monitoring	0	1
	Salmonella - S. Lille	Meat from broilers (Gallus gallus) - fresh - skinned - Monitoring		1
	Salmonella - S. Lille	Meat from broilers (Gallus gallus) - carcass - chilled - Surveillance		1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - chilled - Surveillance		110
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - chilled - Surveillance	0	1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Surveillance	1	0
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - carcass - Surveillance	1	0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	0	1
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	0	1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - Surveillance	111	0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - fresh - skinned - Monitoring		110
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	0	111
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - Surveillance	0	111
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - carcass - Surveillance	0	1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Surveillance	0	1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	1	0

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	111	0
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	1	0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - skinned - Surveillance		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - fresh - skinned - Monitoring		0
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - Surveillance	111	0
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring		1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring	0	1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring		111
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - carcass - Surveillance	1	0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Surveillance	1	0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Surveillance	0	1
	Salmonella - S. Livingstone	Meat from broilers (Gallus gallus) - carcass - Surveillance		1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - Monitoring	7	67
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - Surveillance		111
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - chilled - Monitoring		0
Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - chilled - Surveillance		0	

Date of Modification	Row name	Column name	Old value	New value
2011-12-19	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Monitoring	6	7
	Salmonella - S. Saintpaul	Meat from broilers (Gallus gallus) - carcass - Monitoring		1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Monitoring	1	6
	Salmonella - S. Muenchen	Meat from broilers (Gallus gallus) - carcass - Monitoring		1
	Salmonella - S. Indiana	Meat from broilers (Gallus gallus) - carcass - Monitoring		4
	Salmonella - S. Enteritidis	Meat from broilers (Gallus gallus) - carcass - Monitoring		1
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Monitoring	0	1
	Number of isolates in the laboratory	Meat from broilers (Gallus gallus) - carcass - Monitoring		7
	Number of isolates serotyped	Meat from other poultry species - Monitoring		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Monitoring		0
	Number of isolates serotyped	Meat from broilers (Gallus gallus) - carcass - Surveillance		0
	Number of isolates serotyped	Meat from other poultry species - Surveillance		0
		Footnote	Monitoring plan described in table "salmonella in red meta and poultry meat"	Monitoring plan described in table "salmonella in red meat and poultry meat"
		Footnote		Monitoring plan described in table "salmonella in red meta and poultry meat"

2.1.7 Antimicrobial resistance in Salmonella isolates

A. Antimicrobial resistance in Salmonella in cattle

Sampling strategy used in monitoring

Frequency of the sampling

--

Type of specimen taken

--

Methods of sampling (description of sampling techniques)

--

Procedures for the selection of isolates for antimicrobial testing

--

Methods used for collecting data

--

Laboratory methodology used for identification of the microbial isolates

--

Laboratory used for detection for resistance

Antimicrobials included in monitoring

--

Cut-off values used in testing

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

B. Antimicrobial resistance in Salmonella in foodstuff derived from cattle

Sampling strategy used in monitoring

Frequency of the sampling

see Antimicrobial resistance in Salmonella in poultry

Type of specimen taken

--

Methods of sampling (description of sampling techniques)

--

Procedures for the selection of isolates for antimicrobial testing

--

Methods used for collecting data

--

Laboratory methodology used for identification of the microbial isolates

--

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Cut-off values used in testing

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

--

C. Antimicrobial resistance in Salmonella in foodstuff derived from pigs

Sampling strategy used in monitoring

Frequency of the sampling

--

Type of specimen taken

--

Methods of sampling (description of sampling techniques)

--

Procedures for the selection of isolates for antimicrobial testing

--

Methods used for collecting data

--

Laboratory methodology used for identification of the microbial isolates

--

Laboratory used for detection for resistance

Antimicrobials included in monitoring

--

Cut-off values used in testing

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

--

D. Antimicrobial resistance in Salmonella in foodstuff derived from poultry

Sampling strategy used in monitoring

Frequency of the sampling

--

Type of specimen taken

Salmonella taken during the monitoring plan salmonella and campylobacter 2009, on chicken at retail level (see specific tables for details).

Methods of sampling (description of sampling techniques)

--

Procedures for the selection of isolates for antimicrobial testing

--

Methods used for collecting data

--

Laboratory methodology used for identification of the microbial isolates

Salmonella isolates are serotyped by slide agglutination with antisera.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Susceptibility to Ampicillin, Cefotaxime, Ceftazidime, Chloramphenicol, Ciprofloxacin, Colistin, Florfenicol, Gentamicin, Kanamycin, Nalidixic Acid, Streptomycin, Sulphamethoxazole, Tetracycline, Trimethoprim.

Cut-off values used in testing

The breakpoints are those recommended by the EURL-AR

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

Monitoring of antimicrobial national consumption:

<http://www.anmv.afssa.fr/antibioresistance/>

Thematic folders: Antibiotics resistance

<http://www.afssa.fr/index.htm>

The salmonella network: <http://www.afssapro.fr/reseausalmonella/index.htm>

E. Antimicrobial resistance in Salmonella in pigs

Sampling strategy used in monitoring

Frequency of the sampling

see Antimicrobial resistance in Salmonella in poultry

Type of specimen taken

--

Methods of sampling (description of sampling techniques)

--

Procedures for the selection of isolates for antimicrobial testing

--

Methods used for collecting data

--

Laboratory methodology used for identification of the microbial isolates

--

Laboratory used for detection for resistance

Antimicrobials included in monitoring

--

Cut-off values used in testing

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

F. Antimicrobial resistance in Salmonella in poultry

Sampling strategy used in monitoring

Frequency of the sampling

--

Methods of sampling (description of sampling techniques)

--

Procedures for the selection of isolates for antimicrobial testing

--

Methods used for collecting data

Strains come from EU baseline studies, and national control programmes in place for Gallus breeders and laying hens.

- monitoring program 2009, salmonella in laying hens
- Official controls in broilers

The collection of strains is made in accordance decision 2007/407/EC

Laboratory methodology used for identification of the microbial isolates

Salmonella isolates are serotyped by slide agglutination with antisera.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Susceptibility to beta-lactams, aminoglycosides, quinolones, chloramphenicol, tetracyclines, and sulphamethoxazole-trimethoprim is studied using a standard disk diffusion method on Mueller-Hinton agar plates.

Cut-off values used in testing

The breakpoints are those recommended by the EURL-AR.

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

NRL for AMR in salmonella:

AFSSA Ierqap

Unité de caractérisation Epidémiologie bactérienne

23 av. du Général de Gaulle

97406 Maisons-Alfort

Specific study of AMR for salmonella of animal origins:

<http://www.academie-veterinaire-defrance.org/bulletin/pdf/2008/03.pdf>

For information:

A passive monitoring programme of antimicrobial resistance in *Salmonella enterica*, named "Salmonella network" is organised. The Salmonella network is a monocentric one designed for general monitoring of strains which are collected with relative epidemiological data from veterinary laboratories. Serotyping and antimicrobial resistance are commonly performed on isolates collected.

The data collected and presented in this report ARE NOT the ones from this specific net. To know more about this net consult

The Salmonella network on:

<http://www.afssa.fr/index.htm>

and specific website:

<http://www.afssapro.fr/reseausalmonella/index.htm>

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

Table Antimicrobial susceptibility testing of S. Dublin in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Dublin	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																	1							
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0	1																							
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																					1			
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0													1											
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Dublin	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Dublin in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Dublin	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of S. Agona in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Agona	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Agona	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Agona	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Jerusalem in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Jerusalem	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Jerusalem	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Jerusalem* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Jerusalem	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of S. Kottbus in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Kottbus	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	4	0																			4				
Tetracyclines - Tetracycline	8	4	0															2		2						
Fluoroquinolones - Ciprofloxacin	0.06	4	0			3		1																		
Quinolones - Nalidixic acid	16	4	0																			4				
Trimethoprim	2	4	0													4										
Aminoglycosides - Streptomycin	8	4	1																						3	
Aminoglycosides - Gentamicin	2	4	0											3				1								
Penicillins - Ampicillin	4	4	0															4								
Cephalosporins - Cefotaxim	0.5	4	0							4																
Sulphonamides - Sulfamethoxazol	256	4	0																							2

S. Kottbus	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Kottbus* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Kottbus	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2																8	1024

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Montevideo in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of *S. Tennessee* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Tennessee	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																						2		
Tetracyclines - Tetracycline	8	2	0																	2							
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	1																						1		
Aminoglycosides - Gentamicin	2	2	0											2													
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0									2															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Tennessee	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Tennessee* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Tennessee	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1		1										8	1024

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																						3		
Tetracyclines - Tetracycline	8	3	0															1		2							
Fluoroquinolones - Ciprofloxacin	0.06	3	0			2		1																			
Quinolones - Nalidixic acid	16	3	0																			2		1			
Trimethoprim	2	3	0													3											
Aminoglycosides - Streptomycin	8	3	1																			1		1		1	
Aminoglycosides - Gentamicin	2	3	0											3													
Penicillins - Ampicillin	4	3	0															2		1							
Cephalosporins - Cefotaxim	0.5	3	0									3															
Sulphonamides - Sulfamethoxazol	256	3	0																								

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				3														8	1024

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Agona	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																						2		1
Tetracyclines - Tetracycline	8	3	0																	2		1					
Fluoroquinolones - Ciprofloxacin	0.06	3	0					2		1																	
Quinolones - Nalidixic acid	16	3	0																			1		2			
Trimethoprim	2	3	0													3											
Aminoglycosides - Streptomycin	8	3	0																						3		
Aminoglycosides - Gentamicin	2	3	0											2		1											
Penicillins - Ampicillin	4	3	0															2				1					
Cephalosporins - Cefotaxim	0.5	3	0									2		1													
Sulphonamides - Sulfamethoxazol	256	3	0																								

S. Agona	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Agona	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						3												8	1024

Table Antimicrobial susceptibility testing of S. Agona in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Agona	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Agona	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Agona	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of *S. Anatum* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Anatum	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	4	0																						3		1
Tetracyclines - Tetracycline	8	4	0																	3		1					
Fluoroquinolones - Ciprofloxacin	0.06	4	0					4																			
Quinolones - Nalidixic acid	16	4	0																			3		1			
Trimethoprim	2	4	0													4											
Aminoglycosides - Streptomycin	8	4	2																						2		1
Aminoglycosides - Gentamicin	2	4	0											2		2											
Penicillins - Ampicillin	4	4	0															3		1							
Cephalosporins - Cefotaxim	0.5	4	0									4															
Sulphonamides - Sulfamethoxazol	256	4	0																								

S. Anatum	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Anatum* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Anatum	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2		2												8	1024

Table Antimicrobial susceptibility testing of *S. Montevideo* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Montevideo	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0															1									
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Montevideo	Turkeys - fattening flocks - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of S. Montevideo in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Montevideo	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of *S. Virchow* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Virchow	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	4	0																			2		2			
Tetracyclines - Tetracycline	8	4	0															1		3							
Fluoroquinolones - Ciprofloxacin	0.06	4	1					3				1															
Quinolones - Nalidixic acid	16	4	1																			2		1			
Trimethoprim	2	4	0													4											
Aminoglycosides - Streptomycin	8	4	0																					4			
Aminoglycosides - Gentamicin	2	4	0											2		2											
Penicillins - Ampicillin	4	4	0															4									
Cephalosporins - Cefotaxim	0.5	4	0							3		1															
Sulphonamides - Sulfamethoxazol	256	4	0																								

S. Virchow	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Virchow* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Virchow	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					1													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		2														8	1024

Table Antimicrobial susceptibility testing of S. Hadar in Turkeys - fattening flocks - at farm - environmental sample - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Hadar Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample																										
	Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	1													1											
Quinolones - Nalidixic acid	16	1	1																								
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Hadar Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample																		
	Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline				1														1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Hadar in Turkeys - fattening flocks - at farm - environmental sample - quantitative data [Dilution method]

S. Hadar Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample																		
	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					1													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin				1														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Enteritidis in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Enteritidis	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	8	0																			1		7			
Tetracyclines - Tetracycline	8	8	0															5		3							
Fluoroquinolones - Ciprofloxacin	0.06	8	0			1		7																			
Quinolones - Nalidixic acid	16	8	0																			8					
Trimethoprim	2	8	1													7											
Aminoglycosides - Streptomycin	8	8	0																	3		5					
Aminoglycosides - Gentamicin	2	8	0											7		1											
Penicillins - Ampicillin	4	8	2															5		1							
Cephalosporins - Cefotaxim	0.5	8	0							4		4															
Sulphonamides - Sulfamethoxazol	256	8	1																								

S. Enteritidis	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Enteritidis in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Enteritidis	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			2															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				7									1					8	1024

Table Antimicrobial susceptibility testing of *S. Indiana* in Turkeys - fattening flocks - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Indiana	Turkeys - fattening flocks - at farm - animal sample - faeces																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	1	0																						1			
Tetracyclines - Tetracycline	8	1	0																	1								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																						
Quinolones - Nalidixic acid	16	1	0																			1						
Trimethoprim	2	1	0													1												
Aminoglycosides - Streptomycin	8	1	0																					1				
Aminoglycosides - Gentamicin	2	1	0													1												
Penicillins - Ampicillin	4	1	0															1										
Cephalosporins - Cefotaxim	0.5	1	0							1																		
Sulphonamides - Sulfamethoxazol	256	1	0																									

S. Indiana	Turkeys - fattening flocks - at farm - animal sample - faeces																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Indiana* in Turkeys - fattening flocks - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Indiana	Turkeys - fattening flocks - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Indiana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																				2				
Tetracyclines - Tetracycline	8	2	0															2									
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																			
Quinolones - Nalidixic acid	16	2	0																				2				
Trimethoprim	2	2	0														2										
Aminoglycosides - Streptomycin	8	2	0																						2		
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	0																2								
Cephalosporins - Cefotaxim	0.5	2	0							2																	
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Indiana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Indiana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		1														8	1024

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	7	0																						7	
Tetracyclines - Tetracycline	8	7	0															1		6						
Fluoroquinolones - Ciprofloxacin	0.06	7	0			3		4																		
Quinolones - Nalidixic acid	16	7	0																			7				
Trimethoprim	2	7	0													7										
Aminoglycosides - Streptomycin	8	7	0																			5		2		
Aminoglycosides - Gentamicin	2	7	0											4		3										
Penicillins - Ampicillin	4	7	0															7								
Cephalosporins - Cefotaxim	0.5	7	0							6		1														
Sulphonamides - Sulfamethoxazol	256	7	0																							

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				4		3												8	1024

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Typhimurium	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	14	9																				3		2		
Tetracyclines - Tetracycline	8	14	9															2		3							
Fluoroquinolones - Ciprofloxacin	0.06	14	0			2		12																			
Quinolones - Nalidixic acid	16	14	0																				13		1		
Trimethoprim	2	14	0														14										
Aminoglycosides - Streptomycin	8	14	11																	1					2	2	
Aminoglycosides - Gentamicin	2	14	0											10		4											
Penicillins - Ampicillin	4	14	9															3		2							
Cephalosporins - Cefotaxim	0.5	14	0							9		4		1													
Sulphonamides - Sulfamethoxazol	256	14	9																						2		

S. Typhimurium	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					9													2	64
Tetracyclines - Tetracycline		2		4	3													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Typhimurium	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin				9														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			9															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1		2							9					8	1024

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Typhimurium	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	9	3																			1			5		
Tetracyclines - Tetracycline	8	9	4															1		4							
Fluoroquinolones - Ciprofloxacin	0.06	9	2			1		6						1		1											
Quinolones - Nalidixic acid	16	9	1																			6			2		
Trimethoprim	2	9	0													9											
Aminoglycosides - Streptomycin	8	9	5																			1		3		1	
Aminoglycosides - Gentamicin	2	9	0											6		3											
Penicillins - Ampicillin	4	9	4															2		3							
Cephalosporins - Cefotaxim	0.5	9	0							5		4															
Sulphonamides - Sulfamethoxazol	256	9	4																								

S. Typhimurium	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					3													2	64
Tetracyclines - Tetracycline		2		2														1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Typhimurium	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					1													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1		3														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			4															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		2		1							4					8	1024

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of *S. Rissen* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Rissen	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Rissen	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Rissen* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Rissen	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Sandiego in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Sandiego	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Sandiego	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline					1													1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Sandiego* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Sandiego	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin							1											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of *S. Banana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Banana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																					1			
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Banana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Banana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Banana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Montevideo in Gallus gallus (fowl) - broilers - at slaughterhouse - animal sample - neck skin - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Montevideo	Gallus gallus (fowl) - broilers - at slaughterhouse - animal sample - neck skin																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Montevideo	Gallus gallus (fowl) - broilers - at slaughterhouse - animal sample - neck skin																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - broilers - at slaughterhouse - animal sample - neck skin - quantitative data [Dilution method]

S. Montevideo	Gallus gallus (fowl) - broilers - at slaughterhouse - animal sample - neck skin																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Mbandaka in Gallus gallus (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Mbandaka	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Mbandaka	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of S. Mbandaka in Gallus gallus (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Mbandaka	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin				1														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Llandoff in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Llandoff	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																							1	
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Llandoff	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Llandoff* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Llandoff	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Kedougou in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Kedougou	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																						3		
Tetracyclines - Tetracycline	8	3	0																	3							
Fluoroquinolones - Ciprofloxacin	0.06	3	0					3																			
Quinolones - Nalidixic acid	16	3	0																			3					
Trimethoprim	2	3	0													3											
Aminoglycosides - Streptomycin	8	3	1																					2		1	
Aminoglycosides - Gentamicin	2	3	0											3													
Penicillins - Ampicillin	4	3	0															3									
Cephalosporins - Cefotaxim	0.5	3	0							1		2															
Sulphonamides - Sulfamethoxazol	256	3	3																								

S. Kedougou	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Kedougou in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Kedougou	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													3					8	1024

Table Antimicrobial susceptibility testing of S. IV 1,40:z4,z23:- in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. IV 1,40:z4,z23:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																		1						
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																				1				
Trimethoprim	2	1	0														1										
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0														1										
Penicillins - Ampicillin	4	1	0																1								
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. IV 1,40:z4,z23:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																			2	64
Tetracyclines - Tetracycline																			1	64
Fluoroquinolones - Ciprofloxacin																			0.008	8

Table Antimicrobial susceptibility testing of S. IV 1,40:z4,z23:- in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. IV 1,40:z4,z23:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol								1										8	1024

Table Antimicrobial susceptibility testing of *S. Coeln* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Coeln	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																					1			
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0																	1							
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Coeln	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Coeln* in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Coeln	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of *S. Agona* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Agona	Turkeys - fattening flocks - at farm - environmental sample - dust																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	2	0																							2		
Tetracyclines - Tetracycline	8	2	0																			2						
Fluoroquinolones - Ciprofloxacin	0.06	2	0							2																		
Quinolones - Nalidixic acid	16	2	0																					2				
Trimethoprim	2	2	0													2												
Aminoglycosides - Streptomycin	8	2	0																					2				
Aminoglycosides - Gentamicin	2	2	0											2														
Penicillins - Ampicillin	4	2	0																	2								
Cephalosporins - Cefotaxim	0.5	2	0											2														
Sulphonamides - Sulfamethoxazol	256	2	0																									

S. Agona	Turkeys - fattening flocks - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Agona* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Agona	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1				1										8	1024

Table Antimicrobial susceptibility testing of S. Anatum in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Anatum	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	37	0																			1			36		
Tetracyclines - Tetracycline	8	37	1																	36							
Fluoroquinolones - Ciprofloxacin	0.06	37	0			5		32																			
Quinolones - Nalidixic acid	16	37	0																			33			4		
Trimethoprim	2	37	0														37										
Aminoglycosides - Streptomycin	8	37	11																						26	9	
Aminoglycosides - Gentamicin	2	37	0											23		13		1									
Penicillins - Ampicillin	4	37	1															31		3		2					
Cephalosporins - Cefotaxim	0.5	37	0							1		33		2		1											
Sulphonamides - Sulfamethoxazol	256	37	2																								

S. Anatum	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Anatum* in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Anatum	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1		1														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		16		15		3					2					8	1024

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. 1,4,[5],12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																											
	Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																							2		
Tetracyclines - Tetracycline	8	2	2																									
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																				
Quinolones - Nalidixic acid	16	2	0																				2					
Trimethoprim	2	2	0														2											
Aminoglycosides - Streptomycin	8	2	2																									
Aminoglycosides - Gentamicin	2	2	0											1		1												
Penicillins - Ampicillin	4	2	2																									
Cephalosporins - Cefotaxim	0.5	2	0									2																
Sulphonamides - Sulfamethoxazol	256	2	2																									

S. 1,4,[5],12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																			2	64
Tetracyclines - Tetracycline					2														1	64
Fluoroquinolones - Ciprofloxacin																			0.008	8

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. 1,4,[5],12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin							2											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			2															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													2					8	1024

Table Antimicrobial susceptibility testing of *S. Corvallis* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Corvallis	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																			1					
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																			1					
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Corvallis	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Corvallis* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Corvallis Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of *S. Indiana* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Indiana	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	13	0																	1		9		3			
Tetracyclines - Tetracycline	8	13	11																	2							
Fluoroquinolones - Ciprofloxacin	0.06	13	0			4		9																			
Quinolones - Nalidixic acid	16	13	0																			12		1			
Trimethoprim	2	13	11													2											
Aminoglycosides - Streptomycin	8	13	12																					1		3	
Aminoglycosides - Gentamicin	2	13	0											5		6		2									
Penicillins - Ampicillin	4	13	10															2		1							
Cephalosporins - Cefotaxim	0.5	13	0							8		4		1													
Sulphonamides - Sulfamethoxazol	256	13	11																								

S. Indiana	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					11													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Indiana* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Indiana	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			11															0.5	32
Aminoglycosides - Streptomycin						1	8											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			10															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2									11					8	1024

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Indiana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																				1				
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Indiana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Indiana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin							1											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of S. Llandoff in Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Llandoff	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																						1		
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Llandoff	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of S. Llandoff in Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Llandoff	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Montevideo in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	5	0																			2		3			
Tetracyclines - Tetracycline	8	5	1															1		3							
Fluoroquinolones - Ciprofloxacin	0.06	5	0			1		4																			
Quinolones - Nalidixic acid	16	5	0																			4		1			
Trimethoprim	2	5	0													5											
Aminoglycosides - Streptomycin	8	5	1																					4			
Aminoglycosides - Gentamicin	2	5	0											1		3				1							
Penicillins - Ampicillin	4	5	0															5									
Cephalosporins - Cefotaxim	0.5	5	0							4		1															
Sulphonamides - Sulfamethoxazol	256	5	0																								

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Montevideo	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		3		2														8	1024

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Schwarzengrund	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	1																								
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Schwarzengrund	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					1													2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Schwarzengrund	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin						1												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	8	0																						8		
Tetracyclines - Tetracycline	8	8	0															2		6							
Fluoroquinolones - Ciprofloxacin	0.06	8	0			3		5																			
Quinolones - Nalidixic acid	16	8	0																			7		1			
Trimethoprim	2	8	0													8											
Aminoglycosides - Streptomycin	8	8	1																			3		4		1	
Aminoglycosides - Gentamicin	2	8	0											3		5											
Penicillins - Ampicillin	4	8	0															4		4							
Cephalosporins - Cefotaxim	0.5	8	0							2		5		1													
Sulphonamides - Sulfamethoxazol	256	8	0																							1	

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		4		2												8	1024

Table Antimicrobial susceptibility testing of S. Newport in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Newport	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	1																						1		
Tetracyclines - Tetracycline	8	2	1																	1							
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1				1																	
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	1													1											
Aminoglycosides - Streptomycin	8	2	1																						1		
Aminoglycosides - Gentamicin	2	2	0											2													
Penicillins - Ampicillin	4	2	1															1									
Cephalosporins - Cefotaxim	0.5	2	0							1		1															
Sulphonamides - Sulfamethoxazol	256	2	1																								

S. Newport	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					1													2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Newport* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Newport	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin							1											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol								1					1					8	1024

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - organ/tissue - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - animal sample - organ/tissue																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0																	1							
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - animal sample - organ/tissue																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - organ/tissue - quantitative data [Dilution method]

S. Senftenberg	Gallus gallus (fowl) - laying hens - at farm - animal sample - organ/tissue																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Saintpaul in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Saintpaul	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	≤0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	5	1																						4		
Tetracyclines - Tetracycline	8	5	4																	1							
Fluoroquinolones - Ciprofloxacin	0.06	5	0					5																			
Quinolones - Nalidixic acid	16	5	0																			5					
Trimethoprim	2	5	3													2											
Aminoglycosides - Streptomycin	8	5	2																						3		
Aminoglycosides - Gentamicin	2	5	0											5													
Penicillins - Ampicillin	4	5	3															2									
Cephalosporins - Cefotaxim	0.5	5	0							4		1															
Sulphonamides - Sulfamethoxazol	256	5	3																								

S. Saintpaul	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					1													2	64
Tetracyclines - Tetracycline					4													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Saintpaul in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Saintpaul	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			3															0.5	32
Aminoglycosides - Streptomycin						2												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			3															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						2							3					8	1024

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Agona	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	6	0																						4		2
Tetracyclines - Tetracycline	8	6	0																	4		2					
Fluoroquinolones - Ciprofloxacin	0.06	6	0					5		1																	
Quinolones - Nalidixic acid	16	6	0																			4			2		
Trimethoprim	2	6	0													6											
Aminoglycosides - Streptomycin	8	6	0																						6		
Aminoglycosides - Gentamicin	2	6	0											4		2											
Penicillins - Ampicillin	4	6	1															2		2		1					
Cephalosporins - Cefotaxim	0.5	6	0									3		3													
Sulphonamides - Sulfamethoxazol	256	6	0																								

S. Agona	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Agona	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				4		2												8	1024

Table Antimicrobial susceptibility testing of S. Blockley in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Blockley	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0																			1					
Cephalosporins - Cefotaxim	0.5	1	0											1													
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Blockley	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Blockley in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Blockley Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

S. Senftenberg	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	≤ 0.008	> 0.008	0.015	> 0.016	0.03	> 0.03	0.06	> 0.06	0.12	> 0.12	0.25	> 0.25	0.5	> 0.5	1	> 1	2	> 2	4	> 4	8	> 8	16
Amphenicols - Chloramphenicol	16	22	0																			8		14		
Tetracyclines - Tetracycline	8	22	0															2		20						
Fluoroquinolones - Ciprofloxacin	0.06	22	20					2				1		16		3										
Quinolones - Nalidixic acid	16	22	20																			2				
Trimethoprim	2	22	0													22										
Aminoglycosides - Streptomycin	8	22	1																			11		10		1
Aminoglycosides - Gentamicin	2	22	0											20		2										
Penicillins - Ampicillin	4	22	0															21		1						
Cephalosporins - Cefotaxim	0.5	22	0							4		18														
Sulphonamides - Sulfamethoxazol	256	22	1																							

S. Senftenberg	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	> 16	32	> 32	64	> 64	128	> 128	256	> 256	512	> 512	1024	> 1024	2048	> 2048	4096	> 4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Senftenberg	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					20													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		16		4							1					8	1024

Table Antimicrobial susceptibility testing of *S. Napoli* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Napoli	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																						3		
Tetracyclines - Tetracycline	8	3	0																	3							
Fluoroquinolones - Ciprofloxacin	0.06	3	0					3																			
Quinolones - Nalidixic acid	16	3	0																			2		1			
Trimethoprim	2	3	0													3											
Aminoglycosides - Streptomycin	8	3	0																			2		1			
Aminoglycosides - Gentamicin	2	3	0											2		1											
Penicillins - Ampicillin	4	3	0															1		2							
Cephalosporins - Cefotaxim	0.5	3	0									3															
Sulphonamides - Sulfamethoxazol	256	3	0																								

S. Napoli	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Napoli* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Napoli	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				3														8	1024

Table Antimicrobial susceptibility testing of *S. Kottbus* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Kottbus	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																			3					
Tetracyclines - Tetracycline	8	3	3																								
Fluoroquinolones - Ciprofloxacin	0.06	3	3											2		1											
Quinolones - Nalidixic acid	16	3	3																								
Trimethoprim	2	3	3																								
Aminoglycosides - Streptomycin	8	3	1																					2		1	
Aminoglycosides - Gentamicin	2	3	0											1		2											
Penicillins - Ampicillin	4	3	3																								
Cephalosporins - Cefotaxim	0.5	3	0							1				2													
Sulphonamides - Sulfamethoxazol	256	3	3																								

S. Kottbus	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline				3														1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Kottbus* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Kottbus	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					3													4	64
Trimethoprim			3															0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			3															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													3					8	1024

Table Antimicrobial susceptibility testing of S. Bovismorbificans in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Bovismorbificans	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0							1																	
Quinolones - Nalidixic acid	16	1	0																						1		
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Bovismorbificans	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Bovismorbificans* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Bovismorbificans	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Antimicrobials:	Number of isolates available in the laboratory																		
	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of S. Tennessee in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Tennessee	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																			1					
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	1													1											
Quinolones - Nalidixic acid	16	1	1																								
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0																	1							
Cephalosporins - Cefotaxim	0.5	1	0											1													
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Tennessee	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Tennessee in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Tennessee	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					1													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Mbandaka in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Mbandaka	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	10	0																			2		8		
Tetracyclines - Tetracycline	8	10	1															3		6						
Fluoroquinolones - Ciprofloxacin	0.06	10	0	1		5		3		1																
Quinolones - Nalidixic acid	16	10	0																			9		1		
Trimethoprim	2	10	1													9										
Aminoglycosides - Streptomycin	8	10	3																					7		3
Aminoglycosides - Gentamicin	2	10	0											3		7										
Penicillins - Ampicillin	4	10	1															7		2						
Cephalosporins - Cefotaxim	0.5	10	0							1		8		1												
Sulphonamides - Sulfamethoxazol	256	10	1																					1		

S. Mbandaka	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Mbandaka in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Mbandaka	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				3		5							1					8	1024

Table Antimicrobial susceptibility testing of S. Enteritidis in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	14	0																			1		13			
Tetracyclines - Tetracycline	8	14	0															6		8							
Fluoroquinolones - Ciprofloxacin	0.06	14	0			4		10																			
Quinolones - Nalidixic acid	16	14	0																			14					
Trimethoprim	2	14	0													14											
Aminoglycosides - Streptomycin	8	14	0																	9		3		2			
Aminoglycosides - Gentamicin	2	14	0											11		2		1									
Penicillins - Ampicillin	4	14	0															9		5							
Cephalosporins - Cefotaxim	0.5	14	0							8		6															
Sulphonamides - Sulfamethoxazol	256	14	0																							1	

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		10		1												8	1024

Table Antimicrobial susceptibility testing of *S. Derby* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Derby	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																							1	
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																							1	
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Derby	Turkeys - fattening flocks - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline					1													1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of S. Derby in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Derby Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample - dust																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin						1												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Indiana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	7	0																			4			3		
Tetracyclines - Tetracycline	8	7	2															3		2							
Fluoroquinolones - Ciprofloxacin	0.06	7	0			5		2																			
Quinolones - Nalidixic acid	16	7	0																			7					
Trimethoprim	2	7	2													4		1									
Aminoglycosides - Streptomycin	8	7	3																						4	1	
Aminoglycosides - Gentamicin	2	7	0											3		4											
Penicillins - Ampicillin	4	7	2													1		3		1							
Cephalosporins - Cefotaxim	0.5	7	0							7																	
Sulphonamides - Sulfamethoxazol	256	7	2																								

S. Indiana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					2													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Indiana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			2															0.5	32
Aminoglycosides - Streptomycin							2											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			2															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		3									2					8	1024

Table Antimicrobial susceptibility testing of *S. Kottbus* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Kottbus	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																			2					
Tetracyclines - Tetracycline	8	2	1															1									
Fluoroquinolones - Ciprofloxacin	0.06	2	1			1								1													
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	1													1											
Aminoglycosides - Streptomycin	8	2	2																							2	
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	1															1									
Cephalosporins - Cefotaxim	0.5	2	0							2																	
Sulphonamides - Sulfamethoxazol	256	2	1																							1	

S. Kottbus	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Kottbus* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Kottbus	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of S. Mbandaka in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Mbandaka	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Mbandaka	Turkeys - fattening flocks - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Mbandaka* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Mbandaka	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Mbandaka in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Mbandaka	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	4	0																						4		
Tetracyclines - Tetracycline	8	4	2															1		1							
Fluoroquinolones - Ciprofloxacin	0.06	4	0			3		1																			
Quinolones - Nalidixic acid	16	4	0																			4					
Trimethoprim	2	4	2													2											
Aminoglycosides - Streptomycin	8	4	2																						2	2	
Aminoglycosides - Gentamicin	2	4	0											1		2		1									
Penicillins - Ampicillin	4	4	2															2									
Cephalosporins - Cefotaxim	0.5	4	0									4															
Sulphonamides - Sulfamethoxazol	256	4	2																								

S. Mbandaka	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					2													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Mbandaka in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Mbandaka	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			2															0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			2															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1		1							2					8	1024

Table Antimicrobial susceptibility testing of *S. Paratyphi B* var. Java in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Paratyphi B var. Java	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Paratyphi B var. Java	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Paratyphi B* var. Java in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Paratyphi B var. Java	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Newport	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	1																							1	
Tetracyclines - Tetracycline	8	2	1																	1							
Fluoroquinolones - Ciprofloxacin	0.06	2	0					2																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	1													1											
Aminoglycosides - Streptomycin	8	2	1																						1		
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	1																	1							
Cephalosporins - Cefotaxim	0.5	2	0							1				1													
Sulphonamides - Sulfamethoxazol	256	2	1																								

S. Newport	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					1													2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Newport	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin						1												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1									1					8	1024

Table Antimicrobial susceptibility testing of *S. Anatum* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Anatum	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	1	0																						1			
Tetracyclines - Tetracycline	8	1	0																	1								
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																				
Quinolones - Nalidixic acid	16	1	0																			1						
Trimethoprim	2	1	0													1												
Aminoglycosides - Streptomycin	8	1	0																						1			
Aminoglycosides - Gentamicin	2	1	0											1														
Penicillins - Ampicillin	4	1	0															1										
Cephalosporins - Cefotaxim	0.5	1	0									1																
Sulphonamides - Sulfamethoxazol	256	1	0																									

S. Anatum	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Anatum* in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Anatum	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Banana in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Banana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																			1					
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0																	1							
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Banana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Banana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Banana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of *S. Infantis* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Infantis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	4	0																						4			
Tetracyclines - Tetracycline	8	4	0																	4								
Fluoroquinolones - Ciprofloxacin	0.06	4	0					4																				
Quinolones - Nalidixic acid	16	4	0																			4						
Trimethoprim	2	4	0													4												
Aminoglycosides - Streptomycin	8	4	0																						4			
Aminoglycosides - Gentamicin	2	4	0											4														
Penicillins - Ampicillin	4	4	0															3		1								
Cephalosporins - Cefotaxim	0.5	4	0									4																
Sulphonamides - Sulfamethoxazol	256	4	0																									

S. Infantis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Infantis* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Infantis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		1		2												8	1024

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0	1																							
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																			1					
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Derby in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Derby	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	22	0																			1		21			
Tetracyclines - Tetracycline	8	22	21																			1					
Fluoroquinolones - Ciprofloxacin	0.06	22	0			19		3																			
Quinolones - Nalidixic acid	16	22	0																				22				
Trimethoprim	2	22	2													20											
Aminoglycosides - Streptomycin	8	22	21																						1		
Aminoglycosides - Gentamicin	2	22	0											1		21											
Penicillins - Ampicillin	4	22	4															15		3							
Cephalosporins - Cefotaxim	0.5	22	1									17		4									1				
Sulphonamides - Sulfamethoxazol	256	22	21																								

S. Derby	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline				21														1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Derby* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Derby	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			2															0.5	32
Aminoglycosides - Streptomycin						12	9											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			4															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1											21					8	1024

Table Antimicrobial susceptibility testing of *S. Mbandaka* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Mbandaka	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	6	0																			3		3			
Tetracyclines - Tetracycline	8	6	0															4		2							
Fluoroquinolones - Ciprofloxacin	0.06	6	0			6																					
Quinolones - Nalidixic acid	16	6	0																			6					
Trimethoprim	2	6	0													6											
Aminoglycosides - Streptomycin	8	6	1																					5		1	
Aminoglycosides - Gentamicin	2	6	0											1		5											
Penicillins - Ampicillin	4	6	0																6								
Cephalosporins - Cefotaxim	0.5	6	0							4		2															
Sulphonamides - Sulfamethoxazol	256	6	0																								

S. Mbandaka	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Mbandaka* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Mbandaka	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		4		1												8	1024

Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Newport	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																			1					
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Newport	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Newport	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of *S. Tennessee* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Tennessee	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																						2		
Tetracyclines - Tetracycline	8	2	0															1		1							
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	1																					1		1	
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0									2															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Tennessee	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Tennessee* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Tennessee Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1				1										8	1024

Table Antimicrobial susceptibility testing of S. Senftenberg in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Senftenberg	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	8	0																			1		5		2	
Tetracyclines - Tetracycline	8	8	0															1		5		1		1			
Fluoroquinolones - Ciprofloxacin	0.06	8	1			2		5						1													
Quinolones - Nalidixic acid	16	8	1																			5		2			
Trimethoprim	2	8	0													8											
Aminoglycosides - Streptomycin	8	8	1																			1		6		1	
Aminoglycosides - Gentamicin	2	8	0											6		2											
Penicillins - Ampicillin	4	8	0													1		4		1		2					
Cephalosporins - Cefotaxim	0.5	8	0							1		4		3													
Sulphonamides - Sulfamethoxazol	256	8	0																							4	

S. Senftenberg	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Senftenberg	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					1													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		3														8	1024

Table Antimicrobial susceptibility testing of *S. Oranienburg* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	1	0																						1			
Tetracyclines - Tetracycline	8	1	0																	1								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																						
Quinolones - Nalidixic acid	16	1	0																			1						
Trimethoprim	2	1	0													1												
Aminoglycosides - Streptomycin	8	1	0																						1			
Aminoglycosides - Gentamicin	2	1	0													1												
Penicillins - Ampicillin	4	1	0															1										
Cephalosporins - Cefotaxim	0.5	1	0									1																
Sulphonamides - Sulfamethoxazol	256	1	0																									

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Oranienburg* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - quantitative data [Dilution method]

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Tennessee in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Tennessee	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0											1													
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Tennessee	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Tennessee in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Tennessee Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Anatum in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Anatum	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	6	0																						6		
Tetracyclines - Tetracycline	8	6	2																	4							
Fluoroquinolones - Ciprofloxacin	0.06	6	0					6																			
Quinolones - Nalidixic acid	16	6	0																			6					
Trimethoprim	2	6	0													5		1									
Aminoglycosides - Streptomycin	8	6	3																						3	3	
Aminoglycosides - Gentamicin	2	6	0											6													
Penicillins - Ampicillin	4	6	4															2									
Cephalosporins - Cefotaxim	0.5	6	0									5				1											
Sulphonamides - Sulfamethoxazol	256	6	1																								

S. Anatum	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					2													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Anatum* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Anatum	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin		1	3															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						4		1					1					8	1024

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																			1		2			
Tetracyclines - Tetracycline	8	3	2																	1							
Fluoroquinolones - Ciprofloxacin	0.06	3	0					3																			
Quinolones - Nalidixic acid	16	3	0																			3					
Trimethoprim	2	3	0													3											
Aminoglycosides - Streptomycin	8	3	0																			2		1			
Aminoglycosides - Gentamicin	2	3	0											2		1											
Penicillins - Ampicillin	4	3	0															3									
Cephalosporins - Cefotaxim	0.5	3	0							3																	
Sulphonamides - Sulfamethoxazol	256	3	0																								

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline				2														1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2		1												8	1024

Table Antimicrobial susceptibility testing of S. Napoli in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Napoli	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																			1		1			
Tetracyclines - Tetracycline	8	2	0															1		1							
Fluoroquinolones - Ciprofloxacin	0.06	2	0					2																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	0																			1		1			
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	0																		2						
Cephalosporins - Cefotaxim	0.5	2	0									2															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Napoli	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Napoli* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Napoli	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		1														8	1024

Table Antimicrobial susceptibility testing of S. Livingstone in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Livingstone	Turkeys - fattening flocks - at farm - environmental sample - dust																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	1	0																						1	
Tetracyclines - Tetracycline	8	1	0																	1						
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																		
Quinolones - Nalidixic acid	16	1	0																						1	
Trimethoprim	2	1	0													1										
Aminoglycosides - Streptomycin	8	1	0																						1	
Aminoglycosides - Gentamicin	2	1	0											1												
Penicillins - Ampicillin	4	1	0																	1						
Cephalosporins - Cefotaxim	0.5	1	0									1														
Sulphonamides - Sulfamethoxazol	256	1	0																							

S. Livingstone	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Livingstone* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Livingstone	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Livingstone	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	1	1																								
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																				1				
Trimethoprim	2	1	0														1										
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																			
	Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					1														2	64
Tetracyclines - Tetracycline				1															1	64
Fluoroquinolones - Ciprofloxacin																			0.008	8

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin				1														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of S. Hadar in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Hadar	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	1													1											
Quinolones - Nalidixic acid	16	1	1																								
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0											1													
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Hadar	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline				1														1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Hadar in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Hadar	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					1													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin				1														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	8	0																			6		2			
Tetracyclines - Tetracycline	8	8	0															6		2							
Fluoroquinolones - Ciprofloxacin	0.06	8	0	1		4		3																			
Quinolones - Nalidixic acid	16	8	0																			8					
Trimethoprim	2	8	0													8											
Aminoglycosides - Streptomycin	8	8	0																			1		7			
Aminoglycosides - Gentamicin	2	8	0											6		2											
Penicillins - Ampicillin	4	8	0															8									
Cephalosporins - Cefotaxim	0.5	8	0							8																	
Sulphonamides - Sulfamethoxazol	256	8	0																								

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				8														8	1024

Table Antimicrobial susceptibility testing of S. Agona in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Agona	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	7	0																			1		4		2	
Tetracyclines - Tetracycline	8	7	1															1		3		2					
Fluoroquinolones - Ciprofloxacin	0.06	7	0			1		3		3																	
Quinolones - Nalidixic acid	16	7	0																			5		2			
Trimethoprim	2	7	0													7											
Aminoglycosides - Streptomycin	8	7	1																			2		4			
Aminoglycosides - Gentamicin	2	7	0											6		1											
Penicillins - Ampicillin	4	7	0															4		3							
Cephalosporins - Cefotaxim	0.5	7	0							1		5		1													
Sulphonamides - Sulfamethoxazol	256	7	1																					1			

S. Agona	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Agona* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Agona	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2		3							1					8	1024

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - eggs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - animal sample - eggs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																						2		
Tetracyclines - Tetracycline	8	2	0															2									
Fluoroquinolones - Ciprofloxacin	0.06	2	0		2																						
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	0																	1		1					
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0							2																	
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - animal sample - eggs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - eggs - quantitative data [Dilution method]

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - animal sample - eggs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2														8	1024

Table Antimicrobial susceptibility testing of *S. Jerusalem* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Jerusalem	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0																1								
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																						1		

S. Jerusalem	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Jerusalem* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data
 [Dilution method]

S. Jerusalem	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol																		8	1024

Table Antimicrobial susceptibility testing of S. Veneziana in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Veneziana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																			1		1			
Tetracyclines - Tetracycline	8	2	0															2									
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	0																			1		1			
Aminoglycosides - Gentamicin	2	2	0											2													
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0							2																	
Sulphonamides - Sulfamethoxazol	256	2	0																						1		

S. Veneziana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Veneziana* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Veneziana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of S. Llandoff in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Llandoff	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																						2		
Tetracyclines - Tetracycline	8	2	0																	2							
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	0																			1		1			
Aminoglycosides - Gentamicin	2	2	0											2													
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0									2															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Llandoff	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Llandoff* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Llandoff	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1		1												8	1024

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Livingstone	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	32	0																						32		
Tetracyclines - Tetracycline	8	32	0																	31		1					
Fluoroquinolones - Ciprofloxacin	0.06	32	0			1		30		1																	
Quinolones - Nalidixic acid	16	32	0																			20		12			
Trimethoprim	2	32	0													31		1									
Aminoglycosides - Streptomycin	8	32	12																			4		16		10	
Aminoglycosides - Gentamicin	2	32	0											21		10		1									
Penicillins - Ampicillin	4	32	0															15		17							
Cephalosporins - Cefotaxim	0.5	32	0									29		3													
Sulphonamides - Sulfamethoxazol	256	32	0																								

S. Livingstone	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Livingstone	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		2																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		12		18		1		1										8	1024

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Montevideo	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	8	0																	1		2		5			
Tetracyclines - Tetracycline	8	8	0															3		5							
Fluoroquinolones - Ciprofloxacin	0.06	8	0			4		4																			
Quinolones - Nalidixic acid	16	8	0																			7		1			
Trimethoprim	2	8	0													8											
Aminoglycosides - Streptomycin	8	8	3																					5		2	
Aminoglycosides - Gentamicin	2	8	0											2		6											
Penicillins - Ampicillin	4	8	0															7		1							
Cephalosporins - Cefotaxim	0.5	8	0							5		3															
Sulphonamides - Sulfamethoxazol	256	8	0																					1		1	

S. Montevideo	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Montevideo	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin				1														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		4														8	1024

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Typhimurium	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	7	2																						5		
Tetracyclines - Tetracycline	8	7	3																	4							
Fluoroquinolones - Ciprofloxacin	0.06	7	0			2		5																			
Quinolones - Nalidixic acid	16	7	0																			7					
Trimethoprim	2	7	0													7											
Aminoglycosides - Streptomycin	8	7	5																			1		1			
Aminoglycosides - Gentamicin	2	7	0											4		3											
Penicillins - Ampicillin	4	7	2															5									
Cephalosporins - Cefotaxim	0.5	7	0							7																	
Sulphonamides - Sulfamethoxazol	256	7	5																								

S. Typhimurium	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					2													2	64
Tetracyclines - Tetracycline				3														1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Typhimurium	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin				5														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			2															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2									5					8	1024

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	4	0																						4		
Tetracyclines - Tetracycline	8	4	0															1		3							
Fluoroquinolones - Ciprofloxacin	0.06	4	0			4																					
Quinolones - Nalidixic acid	16	4	0																			4					
Trimethoprim	2	4	0													4											
Aminoglycosides - Streptomycin	8	4	0																			1		3			
Aminoglycosides - Gentamicin	2	4	0													3		1									
Penicillins - Ampicillin	4	4	0															4									
Cephalosporins - Cefotaxim	0.5	4	0							2		2															
Sulphonamides - Sulfamethoxazol	256	4	0																								

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Schwarzengrund* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Schwarzengrund	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				4														8	1024

Table Antimicrobial susceptibility testing of S. Oranienburg in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																						2		
Tetracyclines - Tetracycline	8	2	0																	2							
Fluoroquinolones - Ciprofloxacin	0.06	2	0			2																					
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	0																						2		
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0									2															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Oranienburg* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						2												8	1024

Table Antimicrobial susceptibility testing of S. Ohio in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Ohio Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0																		1						
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																				1				
Trimethoprim	2	1	0														1										
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0																1								
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Ohio Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																			2	64
Tetracyclines - Tetracycline																			1	64
Fluoroquinolones - Ciprofloxacin																			0.008	8

Table Antimicrobial susceptibility testing of S. Ohio in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Ohio Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Senftenberg in Gallus gallus (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Senftenberg	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																						3		
Tetracyclines - Tetracycline	8	3	0																	3							
Fluoroquinolones - Ciprofloxacin	0.06	3	0					3																			
Quinolones - Nalidixic acid	16	3	0																			2		1			
Trimethoprim	2	3	0													3											
Aminoglycosides - Streptomycin	8	3	0																			1		2			
Aminoglycosides - Gentamicin	2	3	0											1		2											
Penicillins - Ampicillin	4	3	0															3									
Cephalosporins - Cefotaxim	0.5	3	0									3															
Sulphonamides - Sulfamethoxazol	256	3	0																							1	

S. Senftenberg	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Gallus gallus (fowl) - broilers - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Senftenberg	Gallus gallus (fowl) - broilers - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1		1														8	1024

Table Antimicrobial susceptibility testing of S. Banana in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Banana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Banana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Banana* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Banana	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Hadar in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Hadar	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	16	0																			5		11		
Tetracyclines - Tetracycline	8	16	11															1		4						
Fluoroquinolones - Ciprofloxacin	0.06	16	7					9						4		3										
Quinolones - Nalidixic acid	16	16	7																			9				
Trimethoprim	2	16	0													16										
Aminoglycosides - Streptomycin	8	16	10																					6		2
Aminoglycosides - Gentamicin	2	16	0											7		9										
Penicillins - Ampicillin	4	16	9															4		3						
Cephalosporins - Cefotaxim	0.5	16	0							8		7		1												
Sulphonamides - Sulfamethoxazol	256	16	0																							

S. Hadar	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline				6	5													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Hadar in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Hadar	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid				1	6													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1		6		1												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			9															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		4		9		3												8	1024

Table Antimicrobial susceptibility testing of *S. Veneziana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Veneziana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	1	0																							1		
Tetracyclines - Tetracycline	8	1	0															1										
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																				
Quinolones - Nalidixic acid	16	1	0																			1						
Trimethoprim	2	1	0													1												
Aminoglycosides - Streptomycin	8	1	0																			1						
Aminoglycosides - Gentamicin	2	1	0											1														
Penicillins - Ampicillin	4	1	0															1										
Cephalosporins - Cefotaxim	0.5	1	0							1																		
Sulphonamides - Sulfamethoxazol	256	1	0																									

S. Veneziana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Veneziana* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Veneziana	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Hadar in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Hadar	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	1													1											
Quinolones - Nalidixic acid	16	1	0																				1				
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0																1								
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Hadar	Turkeys - fattening flocks - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline				1														1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of S. Hadar in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Hadar	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	17	0																			3		14			
Tetracyclines - Tetracycline	8	17	0															6		11							
Fluoroquinolones - Ciprofloxacin	0.06	17	0			4		13																			
Quinolones - Nalidixic acid	16	17	0																			17					
Trimethoprim	2	17	0													17											
Aminoglycosides - Streptomycin	8	17	0																	8		9					
Aminoglycosides - Gentamicin	2	17	0											17													
Penicillins - Ampicillin	4	17	0															11		6							
Cephalosporins - Cefotaxim	0.5	17	0							14		3															
Sulphonamides - Sulfamethoxazol	256	17	0																							3	

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Enteritidis	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		4		10														8	1024

Table Antimicrobial susceptibility testing of S. Bredeney in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Bredeney	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	1																								
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Bredeney	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol					1													2	64	
Tetracyclines - Tetracycline					1													1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Bredeney* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Bredeney	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin						1												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of *S. Jerusalem* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Jerusalem	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Jerusalem	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Jerusalem* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Jerusalem	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of *S. Mbandaka* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Mbandaka	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																	1					1		
Tetracyclines - Tetracycline	8	2	1															1									
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	1													1											
Aminoglycosides - Streptomycin	8	2	1																			1					
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	1													1											
Cephalosporins - Cefotaxim	0.5	2	0							1		1															
Sulphonamides - Sulfamethoxazol	256	2	1																								

S. Mbandaka	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Mbandaka in Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Mbandaka	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin				1														2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1									1					8	1024

Table Antimicrobial susceptibility testing of S. Saintpaul in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Saintpaul	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Saintpaul	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline				1														1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Saintpaul* in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Saintpaul	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin							1											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of *S. Oranienburg* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Oranienburg* in *Gallus gallus* (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of *S. Saintpaul* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Saintpaul	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	1																								
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	1																								
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Saintpaul	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					1													2	64
Tetracyclines - Tetracycline					1													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Saintpaul in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Saintpaul	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin						1												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of S. Senftenberg in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Senftenberg	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	5	0																			1		4			
Tetracyclines - Tetracycline	8	5	0																	5							
Fluoroquinolones - Ciprofloxacin	0.06	5	4					1						3		1											
Quinolones - Nalidixic acid	16	5	4																			1					
Trimethoprim	2	5	0													4		1									
Aminoglycosides - Streptomycin	8	5	0																			2		3			
Aminoglycosides - Gentamicin	2	5	0											5													
Penicillins - Ampicillin	4	5	0															4		1							
Cephalosporins - Cefotaxim	0.5	5	0							1		4															
Sulphonamides - Sulfamethoxazol	256	5	0																								

S. Senftenberg	Turkeys - fattening flocks - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Senftenberg in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Senftenberg Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample - dust																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					4													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				4		1												8	1024

Table Antimicrobial susceptibility testing of *S. Infantis* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Infantis	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																						2		
Tetracyclines - Tetracycline	8	2	0																	2							
Fluoroquinolones - Ciprofloxacin	0.06	2	0					2																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	0																						2		
Aminoglycosides - Gentamicin	2	2	0											2													
Penicillins - Ampicillin	4	2	0															1		1							
Cephalosporins - Cefotaxim	0.5	2	0									2															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Infantis	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Infantis* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Infantis	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2														8	1024

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	1																								
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	1																								
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	1																								
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	1																								

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline					1													1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Braenderup	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			1															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													1					8	1024

Table Antimicrobial susceptibility testing of *S. Concord* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Concord	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																			1					
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																			1					
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Concord	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Concord* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Concord	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Coeln in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data
[Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Coeln	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																					1			
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Coeln	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Coeln* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data
 [Dilution method]

S. Coeln	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of *S. Cerro* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Cerro	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																				1		1		
Tetracyclines - Tetracycline	8	2	0															2									
Fluoroquinolones - Ciprofloxacin	0.06	2	0					2																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	0																			1		1			
Aminoglycosides - Gentamicin	2	2	0													2											
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0							1		1															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Cerro	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Cerro* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - dust - quantitative data
 [Dilution method]

S. Cerro	Gallus gallus (fowl) - laying hens - at farm - environmental sample - dust																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2														8	1024

Table Antimicrobial susceptibility testing of S. Virchow in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Virchow	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																			1				1	
Tetracyclines - Tetracycline	8	2	0																	2							
Fluoroquinolones - Ciprofloxacin	0.06	2	2									1		1													
Quinolones - Nalidixic acid	16	2	2																								
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	1																					1		1	
Aminoglycosides - Gentamicin	2	2	0											1		1											
Penicillins - Ampicillin	4	2	0																2								
Cephalosporins - Cefotaxim	0.5	2	0							1		1															
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Virchow	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Virchow* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Virchow	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					2													4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2																8	1024

Table Antimicrobial susceptibility testing of Other serovars in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

Other serovars	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																			1					
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																							1	

Other serovars	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of Other serovars in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Other serovars	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol																		8	1024

Table Antimicrobial susceptibility testing of Other serovars in Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

Other serovars	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	1	0																						1			
Tetracyclines - Tetracycline	8	1	0															1										
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																						
Quinolones - Nalidixic acid	16	1	0																			1						
Trimethoprim	2	1	0													1												
Aminoglycosides - Streptomycin	8	1	0																			1						
Aminoglycosides - Gentamicin	2	1	0											1														
Penicillins - Ampicillin	4	1	0															1										
Cephalosporins - Cefotaxim	0.5	1	0							1																		
Sulphonamides - Sulfamethoxazol	256	1	0																									

Other serovars	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of Other serovars in Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces - quantitative data [Dilution method]

Other serovars	Gallus gallus (fowl) - laying hens - at farm - animal sample - faeces																		
	Isolates out of a monitoring program (yes/no)																		
Antimicrobials:	Number of isolates available in the laboratory																		
	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of S. Derby in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Derby	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	1																						2		
Tetracyclines - Tetracycline	8	3	3																								
Fluoroquinolones - Ciprofloxacin	0.06	3	0			2		1																			
Quinolones - Nalidixic acid	16	3	0																			3					
Trimethoprim	2	3	1													2											
Aminoglycosides - Streptomycin	8	3	3																								
Aminoglycosides - Gentamicin	2	3	0													3											
Penicillins - Ampicillin	4	3	0															3									
Cephalosporins - Cefotaxim	0.5	3	0									3															
Sulphonamides - Sulfamethoxazol	256	3	3																								

S. Derby	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol					1													2	64	
Tetracyclines - Tetracycline				3														1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Derby* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Derby	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim			1															0.5	32
Aminoglycosides - Streptomycin						3												2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													3					8	1024

Table Antimicrobial susceptibility testing of *S. Bredeney* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Bredeney	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	12	3											1								2		5		1	
Tetracyclines - Tetracycline	8	12	9																	3							
Fluoroquinolones - Ciprofloxacin	0.06	12	1			5		6						1													
Quinolones - Nalidixic acid	16	12	1																			8		3			
Trimethoprim	2	12	7													5											
Aminoglycosides - Streptomycin	8	12	9																			1		2		1	
Aminoglycosides - Gentamicin	2	12	0											8		4											
Penicillins - Ampicillin	4	12	9																	3							
Cephalosporins - Cefotaxim	0.5	12	0							8		4															
Sulphonamides - Sulfamethoxazol	256	12	8																								

S. Bredeney	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol					3													2	64
Tetracyclines - Tetracycline				1	8													1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Bredeney* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Bredeney	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid		1																4	64
Trimethoprim			7															0.5	32
Aminoglycosides - Streptomycin				1		3	4											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			9															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		2									8					8	1024

Table Antimicrobial susceptibility testing of *S. Indiana* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Indiana	Turkeys - fattening flocks - at farm - environmental sample - dust																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																			1					
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0													1											
Cephalosporins - Cefotaxim	0.5	1	0							1																	
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Indiana	Turkeys - fattening flocks - at farm - environmental sample - dust																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Indiana* in Turkeys - fattening flocks - at farm - environmental sample - dust - quantitative data [Dilution method]

S. Indiana Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample - dust																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of *S. Lille* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Lille	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Lille	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Lille in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Lille	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of *S. Kedougou* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Kedougou	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	5	0																						5		
Tetracyclines - Tetracycline	8	5	0																	5							
Fluoroquinolones - Ciprofloxacin	0.06	5	0			1		4																			
Quinolones - Nalidixic acid	16	5	0																			5					
Trimethoprim	2	5	0													5											
Aminoglycosides - Streptomycin	8	5	3																						2	2	
Aminoglycosides - Gentamicin	2	5	0											3		2											
Penicillins - Ampicillin	4	5	0															5									
Cephalosporins - Cefotaxim	0.5	5	0							3		2															
Sulphonamides - Sulfamethoxazol	256	5	3																								

S. Kedougou	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Kedougou* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Kedougou	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin		1																2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				2									3					8	1024

Table Antimicrobial susceptibility testing of *S. Molade* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Molade	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																				1				
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																						1		
Aminoglycosides - Gentamicin	2	1	0													1											
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Molade	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Molade* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Molade	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Montevideo in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Montevideo	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	2	0																			1		1			
Tetracyclines - Tetracycline	8	2	0															2									
Fluoroquinolones - Ciprofloxacin	0.06	2	0			1		1																			
Quinolones - Nalidixic acid	16	2	0																			2					
Trimethoprim	2	2	0													2											
Aminoglycosides - Streptomycin	8	2	2																							2	
Aminoglycosides - Gentamicin	2	2	0													2											
Penicillins - Ampicillin	4	2	0															2									
Cephalosporins - Cefotaxim	0.5	2	0							2																	
Sulphonamides - Sulfamethoxazol	256	2	0																								

S. Montevideo	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Montevideo in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Montevideo	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1						1										8	1024

Table Antimicrobial susceptibility testing of S. Napoli in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Napoli	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	4	0																			1		3			
Tetracyclines - Tetracycline	8	4	0															1		3							
Fluoroquinolones - Ciprofloxacin	0.06	4	0			1		3																			
Quinolones - Nalidixic acid	16	4	0																			3		1			
Trimethoprim	2	4	0													4											
Aminoglycosides - Streptomycin	8	4	0																			3		1			
Aminoglycosides - Gentamicin	2	4	0											3		1											
Penicillins - Ampicillin	4	4	0															1		3							
Cephalosporins - Cefotaxim	0.5	4	0							1		3															
Sulphonamides - Sulfamethoxazol	256	4	0																								

S. Napoli	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Napoli in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Napoli Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		2														8	1024

Table Antimicrobial susceptibility testing of S. Typhimurium in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Typhimurium		Turkeys - fattening flocks - at farm - environmental sample - boot swabs																									
		Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory																									
Antimicrobials:		Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol		16	10	5																						5	
Tetracyclines - Tetracycline		8	10	9																	1						
Fluoroquinolones - Ciprofloxacin		0.06	10	1			4		5						1												
Quinolones - Nalidixic acid		16	10	1																			9				
Trimethoprim		2	10	2													8										
Aminoglycosides - Streptomycin		8	10	10																							
Aminoglycosides - Gentamicin		2	10	0											6		4										
Penicillins - Ampicillin		4	10	9																1							
Cephalosporins - Cefotaxim		0.5	10	0							8		2														
Sulphonamides - Sulfamethoxazol		256	10	10																							

S. Typhimurium		Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
		Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory																		
Antimicrobials:		>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol						5													2	64
Tetracyclines - Tetracycline			3		1	5													1	64
Fluoroquinolones - Ciprofloxacin																			0.008	8

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Typhimurium	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid					1													4	64
Trimethoprim			2															0.5	32
Aminoglycosides - Streptomycin		1		3		1	5											2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin			9															0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol													10					8	1024

Table Antimicrobial susceptibility testing of S. Ohio in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data
[Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Ohio	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16
Amphenicols - Chloramphenicol	16	1	0																				1			
Tetracyclines - Tetracycline	8	1	0															1								
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																				
Quinolones - Nalidixic acid	16	1	0																				1			
Trimethoprim	2	1	0													1										
Aminoglycosides - Streptomycin	8	1	0																				1			
Aminoglycosides - Gentamicin	2	1	0											1												
Penicillins - Ampicillin	4	1	0																	1						
Cephalosporins - Cefotaxim	0.5	1	0							1																
Sulphonamides - Sulfamethoxazol	256	1	0																							

S. Ohio	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Ohio in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data
 [Dilution method]

S. Ohio	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		1																8	1024

Table Antimicrobial susceptibility testing of S. Oranienburg in Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0																	1							
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	1																							1	
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of *S. Oranienburg* in *Gallus gallus* (fowl) - laying hens - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Oranienburg	Gallus gallus (fowl) - laying hens - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Antimicrobial susceptibility testing of S. Livingstone in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Livingstone	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16		
Amphenicols - Chloramphenicol	16	4	0																						4			
Tetracyclines - Tetracycline	8	4	0																	4								
Fluoroquinolones - Ciprofloxacin	0.06	4	0					4																				
Quinolones - Nalidixic acid	16	4	0																			2		2				
Trimethoprim	2	4	0													4												
Aminoglycosides - Streptomycin	8	4	2																					2		2		
Aminoglycosides - Gentamicin	2	4	0											1		3												
Penicillins - Ampicillin	4	4	0															2		2								
Cephalosporins - Cefotaxim	0.5	4	0									4																
Sulphonamides - Sulfamethoxazol	256	4	0																									

S. Livingstone	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of S. Livingstone in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Livingstone	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		2														8	1024

Table Antimicrobial susceptibility testing of S. Enteritidis in Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Enteritidis	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	3	0																						3		
Tetracyclines - Tetracycline	8	3	0																	3							
Fluoroquinolones - Ciprofloxacin	0.06	3	0					3																			
Quinolones - Nalidixic acid	16	3	0																			3					
Trimethoprim	2	3	0													3											
Aminoglycosides - Streptomycin	8	3	0																	1		2					
Aminoglycosides - Gentamicin	2	3	0											2		1											
Penicillins - Ampicillin	4	3	0															2		1							
Cephalosporins - Cefotaxim	0.5	3	0							1		2															
Sulphonamides - Sulfamethoxazol	256	3	0																								

S. Enteritidis	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - broilers - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Enteritidis	Gallus gallus (fowl) - broilers - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol		2		1														8	1024

Table Antimicrobial susceptibility testing of S. Eboko in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Eboko	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																						1		
Tetracyclines - Tetracycline	8	1	0															1									
Fluoroquinolones - Ciprofloxacin	0.06	1	0					1																			
Quinolones - Nalidixic acid	16	1	0																			1					
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																					1			
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0															1									
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Eboko	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
	Number of isolates available in the laboratory																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Amphenicols - Chloramphenicol																		2	64
Tetracyclines - Tetracycline																		1	64
Fluoroquinolones - Ciprofloxacin																		0.008	8

Table Antimicrobial susceptibility testing of S. Eboko in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Eboko	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
	Isolates out of a monitoring program (yes/no)																		
Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol				1														8	1024

Table Antimicrobial susceptibility testing of S. Goldcoast in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

S. Goldcoast	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.008	>0.008	0.015	>0.016	0.03	>0.03	0.06	>0.06	0.12	>0.12	0.25	>0.25	0.5	>0.5	1	>1	2	>2	4	>4	8	>8	16	
Amphenicols - Chloramphenicol	16	1	0																							1	
Tetracyclines - Tetracycline	8	1	0																			1					
Fluoroquinolones - Ciprofloxacin	0.06	1	0							1																	
Quinolones - Nalidixic acid	16	1	0																					1			
Trimethoprim	2	1	0													1											
Aminoglycosides - Streptomycin	8	1	0																					1			
Aminoglycosides - Gentamicin	2	1	0											1													
Penicillins - Ampicillin	4	1	0																			1					
Cephalosporins - Cefotaxim	0.5	1	0									1															
Sulphonamides - Sulfamethoxazol	256	1	0																								

S. Goldcoast	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																			
	Isolates out of a monitoring program (yes/no)																			
	Number of isolates available in the laboratory																			
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest	
Amphenicols - Chloramphenicol																		2	64	
Tetracyclines - Tetracycline																		1	64	
Fluoroquinolones - Ciprofloxacin																		0.008	8	

Table Antimicrobial susceptibility testing of S. Goldcoast in Turkeys - fattening flocks - at farm - environmental sample - boot swabs - quantitative data [Dilution method]

S. Goldcoast Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - at farm - environmental sample - boot swabs																		
Antimicrobials:	>16	32	>32	64	>64	128	>128	256	>256	512	>512	1024	>1024	2048	>2048	4096	>4096	lowest	highest
Quinolones - Nalidixic acid																		4	64
Trimethoprim																		0.5	32
Aminoglycosides - Streptomycin																		2	128
Aminoglycosides - Gentamicin																		0.25	32
Penicillins - Ampicillin																		0.5	32
Cephalosporins - Cefotaxim																		0.06	4
Sulphonamides - Sulfamethoxazol						1												8	1024

Table Cut-off values for antibiotic resistance testing of Salmonella in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Amphenicols	Chloramphenicol		16	
Tetracyclines	Tetracycline		8	
Fluoroquinolones	Ciprofloxacin		0.06	
Quinolones	Nalidixic acid		16	
Trimethoprim	Trimethoprim		2	
Sulphonamides	Sulphonamides		256	
Aminoglycosides	Streptomycin		32	
	Gentamicin		2	
Cephalosporins	Cefotaxim		0.5	
Penicillins	Ampicillin		4	

Table Cut-off values for antibiotic resistance testing of Salmonella in Feed

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Amphenicols	Chloramphenicol		16	
Tetracyclines	Tetracycline		8	
Fluoroquinolones	Ciprofloxacin		0.06	
Quinolones	Nalidixic acid		16	
Trimethoprim	Trimethoprim		2	
Sulphonamides	Sulphonamides		256	
Aminoglycosides	Streptomycin		32	
	Gentamicin		2	
Cephalosporins	Cefotaxim		0.5	
Penicillins	Ampicillin		4	

Table Cut-off values for antibiotic resistance testing of Salmonella in Food

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Amphenicols	Chloramphenicol		16	
Tetracyclines	Tetracycline		8	
Fluoroquinolones	Ciprofloxacin		0.06	
Quinolones	Nalidixic acid		16	
Trimethoprim	Trimethoprim		2	
Sulphonamides	Sulphonamides		256	
Aminoglycosides	Streptomycin		32	
	Gentamicin		2	
Cephalosporins	Cefotaxim		0.5	
Penicillins	Ampicillin		4	

2.2 CAMPYLOBACTERIOSIS

2.2.1 General evaluation of the national situation

A. Thermophilic Campylobacter general evaluation

History of the disease and/or infection in the country

See invs and specific CNR websites ("additional information")

National evaluation of the recent situation, the trends and sources of infection

See invs and cnr websites

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

http://www.infectiologie.com/site/medias/_documents/officiels/afssa/Campylo090207.pdf

<http://www.afssa.fr/Documents/MIC-Ra-campylobacter.pdf>

Recent actions taken to control the zoonoses

–

Suggestions to the Community for the actions to be taken

–

Additional information

For informations about campylobacter in animals, see specific table on afssa website

For humans figures

<http://www.invs.sante.fr/surveillance/campylobacter/default.htm>

<http://www.cnrch.u-bordeaux2.fr/>

For antimicrobial resistance issues:

Monitoring of antibiotics sales

<http://www.anmv.afssa.fr/antibioresistance>

Thematic folders: Antibiotics resistance

<http://www.afssa.fr/index.htm>

Resapath net

<http://www.afssa.fr/Documents/LABO-Ra-Resapath2008.pdf>

NRL website:

<http://www.ploufragan.afssa.fr/>

2.2.2 Campylobacteriosis in humans

A. Thermophilic Campylobacter in humans

Reporting system in place for the human cases

See "additional information"

Case definition

–

Diagnostic/analytical methods used

–

Notification system in place

–

History of the disease and/or infection in the country

–

Results of the investigation

–

National evaluation of the recent situation, the trends and sources of infection

–

Relevance as zoonotic disease

–

Additional information

Useful informations can be obtained at:

<http://www.invs.sante.fr/surveillance/campylobacter/default.htm>

and

<http://www.cnrch.u-bordeaux2.fr/>

Recommandations for consumers:

2.2.3 Campylobacter in foodstuffs

A. Thermophilic Campylobacter in Broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

–

At meat processing plant

–

At retail

Monitoring plan at retail stage, in 3 categories of broiler products

Frequency of the sampling

At retail

Sampling distributed evenly throughout the year

Type of specimen taken

At retail

Other: carcasses, escalopes, legs

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

–

At meat processing plant

–

At retail

–

Definition of positive finding

At slaughterhouse and cutting plant

–

At meat processing plant

–

At retail

–

Diagnostic/analytical methods used

At retail

Other: ISO 10272:1 and 2

Preventive measures in place

–

Control program/mechanisms

The control program/strategies in place

Monitoring plan on campylobacter and salmonella in the frame of on Directive EC n°2003-99.

The organisation of monitoring plan is done in close cooperation with DGCCRF (directorate for competition policy consumer affairs and fraud control, ministry of economy), DGS (Directorate for health, ministry of health) AFSSA and InVS (institute of sanitary surveillance).

Recent actions taken to control the zoonoses

–

Suggestions to the Community for the actions to be taken

–

Measures in case of the positive findings or single cases

–

Notification system in place

–

Results of the investigation

–

National evaluation of the recent situation, the trends and sources of infection

A monitoring plan has been leaded this year at retail stage to complete the EFSA's baseline study of 2008.

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

–

Additional information

Analyses done by the NRL for campylobacter and salmonella

<http://www.ploufragan.afssa.fr/>

2.2.4 Campylobacter in animals

A. Thermophilic Campylobacter in Gallus gallus

Monitoring system

Sampling strategy

In 2009, the campylobacter spp isolates from poultry were obtained from the national monitoring plan for AMR in 10 slaughterhouses representing the national poultry production. Strains were isolated and identified as campylobacter spp. by local vet. laboratories. The total units positive were estimated by local vet lab. The strains were sent to NRL for identification (PCR) and determination of MICs.

Frequency of the sampling

At slaughter

Sampling distributed evenly throughout the year

Type of specimen taken

At slaughter

Organs:caecum

Methods of sampling (description of sampling techniques)

Rearing period

–

Before slaughter at farm

–

At slaughter

Just after slaughter, method described in the EU baseline study (2008)

Case definition

Rearing period

–

Before slaughter at farm

–

At slaughter

–

Diagnostic/analytical methods used

At slaughter

Other: NF EN ISO 10272:2006 part 1 and 2

Vaccination policy

–

Other preventive measures than vaccination in place

–

Control program/mechanisms

The control program/strategies in place

–

Recent actions taken to control the zoonoses

–

Suggestions to the Community for the actions to be taken

–

Measures in case of the positive findings or single cases

–

Notification system in place

–

Results of the investigation

Cf. EU baseline study for 2008

National evaluation of the recent situation, the trends and sources of infection

–

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

–

Additional information

Monitoring plan for antimicrobial resistance in 2009 allow us to have results on campylobacter prevalence in poultry

Table Campylobacter in animals

	Source of information	Sampling unit	Units tested	Total units positive for Campylobacter	C. coli	C. jejuni	C. lari	C. upsaliensis	Thermophilic Campylobacter spp., unspecified
Gallus gallus (fowl) - broilers - at slaughterhouse - animal sample - caecum - Monitoring - official sampling	CCA	Animal	196	153	61	52			40

Footnote:

These strains were collected in the frame of AMR monitoring plan datas

2.2.5 Antimicrobial resistance in Campylobacter isolates

A. Antimicrobial resistance in Campylobacter jejuni and coli in cattle

Sampling strategy used in monitoring

Frequency of the sampling

--

Type of specimen taken

--

Methods of sampling (description of sampling techniques)

--

Procedures for the selection of isolates for antimicrobial testing

--

Methods used for collecting data

--

Laboratory methodology used for identification of the microbial isolates

--

Laboratory used for detection for resistance

Antimicrobials included in monitoring

--

Cut-off values used in testing

--

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

B. Antimicrobial resistance in Campylobacter jejuni and coli in foodstuff derived from cattle

Sampling strategy used in monitoring

Frequency of the sampling

—

Type of specimen taken

—

Methods of sampling (description of sampling techniques)

—

Procedures for the selection of isolates for antimicrobial testing

—

Methods used for collecting data

—

Laboratory methodology used for identification of the microbial isolates

—

Laboratory used for detection for resistance

Antimicrobials included in monitoring

—

Cut-off values used in testing

—

Preventive measures in place

—

Control program/mechanisms

The control program/strategies in place

—

Recent actions taken to control the zoonoses

—

Suggestions to the Community for the actions to be taken

—

Measures in case of the positive findings or single cases

—

Notification system in place

—

Results of the investigation

—

National evaluation of the recent situation, the trends and sources of infection

—

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

–

Additional information

–

C. Antimicrobial resistance in *Campylobacter jejuni* and *coli* in foodstuff derived from pigs

Sampling strategy used in monitoring

Frequency of the sampling

–

Type of specimen taken

–

Methods of sampling (description of sampling techniques)

–

Procedures for the selection of isolates for antimicrobial testing

–

Methods used for collecting data

–

Laboratory methodology used for identification of the microbial isolates

–

Laboratory used for detection for resistance

Antimicrobials included in monitoring

–

Cut-off values used in testing

–

Preventive measures in place

–

Control program/mechanisms

The control program/strategies in place

–

Recent actions taken to control the zoonoses

–

Suggestions to the Community for the actions to be taken

–

Measures in case of the positive findings or single cases

–

Notification system in place

–

Results of the investigation

–

National evaluation of the recent situation, the trends and sources of infection

–

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

–

Additional information

–

D. Antimicrobial resistance in *Campylobacter jejuni* and *coli* in foodstuff derived from poultry

Sampling strategy used in monitoring

Frequency of the sampling

–

Type of specimen taken

–

Methods of sampling (description of sampling techniques)

–

Procedures for the selection of isolates for antimicrobial testing

—

Methods used for collecting data

–

Laboratory methodology used for identification of the microbial isolates

–

Laboratory used for detection for resistance

Antimicrobials included in monitoring

–

Cut-off values used in testing

–

Preventive measures in place

–

Control program/mechanisms

The control program/strategies in place

–

Recent actions taken to control the zoonoses

–

Suggestions to the Community for the actions to be taken

–

Measures in case of the positive findings or single cases

–

Notification system in place

–

Results of the investigation

–

National evaluation of the recent situation, the trends and sources of infection

–

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

–

Additional information

<http://www.ploufragan.afssa.fr/>

E. Antimicrobial resistance in Campylobacter jejuni and coli in pigs

Sampling strategy used in monitoring

Frequency of the sampling

–

Type of specimen taken

Faeces samples were collected just after slaughter directly in the intestine of pigs. Pigs came from 10 slaughterhouses.

Methods of sampling (description of sampling techniques)

–

Procedures for the selection of isolates for antimicrobial testing

Strains were isolated and identified as campylobacter spp. by local vet. laboratories. The total units positive were estimated upon the results of local vet lab. The strains were sent to NRL for identification (PCR) and determination of MICs. However after thawings 40 and 64 isolates from poultry or pigs could not be revive thus identification and MICs were determined on the remaining cultural isolates.

Methods used for collecting data

The strains campylobacter were collected during the monitoring plan for AMR surveillance 2009

Laboratory methodology used for identification of the microbial isolates

Iso 10272

Laboratory used for detection for resistance

Antimicrobials included in monitoring

see table

Cut-off values used in testing

see table

Preventive measures in place

–

Control program/mechanisms

The control program/strategies in place

–

Recent actions taken to control the zoonoses

–

Suggestions to the Community for the actions to be taken

–

Measures in case of the positive findings or single cases

–

Notification system in place

–

Results of the investigation

–

National evaluation of the recent situation, the trends and sources of infection

–

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

–

Additional information

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

F. Antimicrobial resistance in Campylobacter jejuni and coli in poultry

Sampling strategy used in monitoring

Frequency of the sampling

Monitoring plan for AMR in campylobacter.

Type of specimen taken

Caeca contents

Methods of sampling (description of sampling techniques)

Like in the EU baseline study 2008

Procedures for the selection of isolates for antimicrobial testing

Strains were isolated and identified as campylobacter spp. by local vet. laboratories. The total units positive were estimated upon the results of local vet lab. The strains were sent to NRL for identification (PCR) and determination of MICs. However after thawings , 40 isolates from poultry could not be revived thus identification and MICs were determined on the remaining cultural isolates.

Methods used for collecting data

--

Laboratory methodology used for identification of the microbial isolates

--

Laboratory used for detection for resistance

Antimicrobials included in monitoring

See table

Cut-off values used in testing

See table

Preventive measures in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

NRL for campylobacter and salmonella

<http://www.ploufragan.afssa.fr/>

Table Antimicrobial susceptibility testing of Campylobacter in Gallus gallus (fowl)

Campylobacter	Campylobacter spp., unspecified		C. coli		C. jejuni	
	Isolates out of a monitoring program (yes/no)			yes		yes
Number of isolates available in the laboratory			61		52	
Antimicrobials:	N	n	N	n	N	n
Fully sensitive			59	2	49	12
Resistant to 1 antimicrobial			59	20	49	18
Resistant to 2 antimicrobials			59	25	49	18
Resistant to 3 antimicrobials			59	11	49	1
Resistant to 4 antimicrobials			59	1		

Table Antimicrobial susceptibility testing of *C. coli* in *Gallus gallus* (fowl) - broilers - at slaughterhouse - Monitoring - official sampling - objective sampling - quantitative data [Dilution method]

Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

C. coli	Gallus gallus (fowl) - broilers - at slaughterhouse - Monitoring - official sampling - objective sampling																											
	yes																											
	61																											
Antimicrobials:	Cut-off value	N	n	≤ 0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest			
Tetracyclines - Tetracycline	2	59	54						5						1	53									0.25	16		
Fluoroquinolones - Ciprofloxacin	1	59	39				3	12	4	1				39											0.06	4		
Quinolones - Nalidixic acid	32	59	38										19	1		1	27	11							2	64		
Aminoglycosides - Streptomycin	4	59	8								4	45	2			8									1	16		
Aminoglycosides - Gentamicin	2	59	0					2	6	50	1														0.125	16		
Macrolides - Erythromycin	16	59	6							40	12	1					6								0.5	32		

Table Antimicrobial susceptibility testing of *C. jejuni* in *Gallus gallus* (fowl) - broilers - at slaughterhouse - Monitoring - official sampling - objective sampling - quantitative data [Dilution method]

Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

C. jejuni	Gallus gallus (fowl) - broilers - at slaughterhouse - Monitoring - official sampling - objective sampling																										
	Isolates out of a monitoring program (yes/no)																										
	yes																										
Number of isolates available in the laboratory																											
52																											
Antimicrobials:	Cut-off value	N	n	≤ 0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest		
Tetracyclines - Tetracycline	2	49	31						17	1			2		3	26									0.25	16	
Fluoroquinolones - Ciprofloxacin	1	49	25				8	10	3	2	1		1	24											0.06	4	
Quinolones - Nalidixic acid	16	49	24									2	17	3	3	1	12	11							2	64	
Aminoglycosides - Streptomycin	2	49	1								38	10	1												1	16	
Aminoglycosides - Gentamicin	1	49	0					8	29	12															0.125	16	
Macrolides - Erythromycin	4	49	0							47	2														0.5	32	

Table Cut-off values used for antimicrobial susceptibility testing of *C. coli* in Animals

Test Method Used	Standard methods used for testing
Broth dilution	NCCLS/CLSI

		Concentration (microg/ml)		Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	
Fluoroquinolones	Ciprofloxacin		1	
Quinolones	Nalidixic acid		32	
Aminoglycosides	Gentamicin		2	
	Streptomycin		4	
Macrolides	Erythromycin		16	

Table Cut-off values used for antimicrobial susceptibility testing of C. coli in Feed

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	
Fluoroquinolones	Ciprofloxacin		1	
Aminoglycosides	Gentamicin		2	
	Streptomycin		4	
Macrolides	Erythromycin		16	

Table Cut-off values used for antimicrobial susceptibility testing of *C. coli* in Food

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	
Fluoroquinolones	Ciprofloxacin		1	
Aminoglycosides	Gentamicin		2	
	Streptomycin		4	
Macrolides	Erythromycin		16	

Table Cut-off values used for antimicrobial susceptibility testing of *C. jejuni* in Animals

Test Method Used	Standard methods used for testing
Broth dilution	NCCLS/CLSI

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	
Fluoroquinolones	Ciprofloxacin		1	
Quinolones	Nalidixic acid		16	
Aminoglycosides	Gentamicin		1	
	Streptomycin		2	
Macrolides	Erythromycin		4	

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Feed

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	
Fluoroquinolones	Ciprofloxacin		1	
Aminoglycosides	Gentamicin		1	
	Streptomycin		2	
Macrolides	Erythromycin		4	

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Food

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	
Fluoroquinolones	Ciprofloxacin		1	
Aminoglycosides	Gentamicin		1	
	Streptomycin		2	
Macrolides	Erythromycin		4	

2.3 LISTERIOSIS

2.3.1 General evaluation of the national situation

A. Listeriosis general evaluation

History of the disease and/or infection in the country

See invs website: www.invs.sante.fr

National evaluation of the recent situation, the trends and sources of infection

Consult AFSSA opinion about the link between increasing of humans cases and evolution of consumption.

Avis de l'AFSSA sur l'augmentation des cas de listériose et le lien éventuel avec l'évolution des modes de production, de préparation et de consommation des aliments

<http://www.afssa.fr/Documents/MIC-Ra-ListerioseAliments.pdf>

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

Collected datas in the frame of annual monitoring plans do not show any link between the increase of contamination of ready-to-eat food and increasing number of human cases in France (and in the other MS).

Specific study about listeria in fish products: <http://www.academie-veterinaire-defrance.org/bulletin/pdf/2009/03.pdf>

Recent actions taken to control the zoonoses

The organisation of monitoring plan is done in close cooperation with DGCCRF (directorate for competition policy consumer affairs and fraud control, ministry of economy), DGS (Directorate for health, ministry of health) AFSSA and InVS (institute of sanitary surveillance).

Suggestions to the Community for the actions to be taken

amendment of microbiological criteria defined for category 1.2 of Reg. EC n°2073/2005. The limit 100 UFC/g along shelf life should be applied on when food business operators are able to demonstrate by accurate shelf life studies, that this limit is respected until the end of life period of the product. Discussion still ongoing in specific working group.

Additional information

See website referenced in "listeriosis in humans"

NRL: See Afssa Website: <http://www.afssa.fr/index.htm>

Laboratoire d'études et de recherches sur la qualité des aliments et sur les procédés agroalimentaires
23, avenue du Général de Gaulle
94706 MAISONS-ALFORT Cedex

specific information:

2.3.2 Listeriosis in humans

A. Listeriosis in humans

Reporting system in place for the human cases

See reference in "additional information"

Case definition

-

Diagnostic/analytical methods used

Consult CNR website (see below)

Notification system in place

-

History of the disease and/or infection in the country

Consult Invs website and the specific CNR website

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

<http://www.invs.sante.fr/surveillance/listeriose/default.htm>

To get informations about the surveillance system in France and the prevalence:

http://www.invs.sante.fr/surveillance/listeriose/nb_annuel_cas_listeriose_1999_2008.pdf

To get information about the National reference center of listeria (CNR)

<http://www.pasteur.fr/ip/easysite/go/03b-00003t-0dn/actualites-rapports>

2.3.3 Listeria in foodstuffs

Table Listeria monocytogenes in milk and dairy products

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L. monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but ≤ 100 cfu/g	L. monocytogenes > 100 cfu/g
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - domestic production - Monitoring - official sampling ¹⁾	DGCCRF	Single	25	1453	6	1453	6	1453	0	0
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at retail - domestic production - Monitoring - official sampling	DGCCRF	Single	25	178	0	178	0			

Comments:

¹⁾ In compliance with Reg (EC) 2073-2005

Footnote:

DGCCRF stands for General Directorate for Competition Policy, Consumer Affairs and Fraud Control

The enumeration analysis is carried out only if the samples have been found positive by the detection method.

The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-20	Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - domestic production - Monitoring - official sampling	Units tested with enumeration method	6	1453

Table *Listeria monocytogenes* in other foods

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>L. monocytogenes</i>	Units tested with detection method	<i>Listeria monocytogenes</i> presence in x g	Units tested with enumeration method	> detection limit but ≤ 100 cfu/g	<i>L. monocytogenes</i> > 100 cfu/g
Fish - smoked - at retail - Monitoring - official sampling	DGCCRF	Single	25	297	21	297	21	297	21	0
Fishery products, unspecified - raw - chilled - at retail - domestic production - Monitoring - official sampling ¹⁾	DGCCRF	Single	25	145	3	145	3	145	3	0
Fishery products, unspecified - ready-to-eat - chilled - at retail - Monitoring - official sampling	DGCCRF	Single	25	213	6	213	6	213	6	0
Meat from bovine animals - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling	DGCCRF	Single	25	227	17	227	17	227	7	2
Meat from broilers (<i>Gallus gallus</i>) - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling	DGCCRF	Single	25	38	5	38	5	38	1	2
Meat from pig - meat products - cooked, ready-to-eat - chilled - at retail - Monitoring - official sampling	DGCCRF	Single	25	5827	36	5827	36	5827	7	3
Meat from pig - meat products - raw and intended to be eaten raw - at retail - domestic production - Monitoring - official sampling (delicatessen) ²⁾		Single	25	474	0	474	0			

Comments:

¹⁾ Intended to be eaten raw (sushis)

²⁾ this line should be erased (only salmonella has been tested, see specific table)

Table *Listeria monocytogenes* in other foods

Footnote:

The enumeration analysis is carried out only if the samples have been found positive by the detection method.
The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-20	Fishery products, unspecified - raw - chilled - at retail - domestic production - Monitoring - official sampling	Units tested with enumeration method	3	145
	Fishery products, unspecified - ready-to-eat - chilled - at retail - Monitoring - official sampling	Units tested with enumeration method	6	213
	Meat from bovine animals - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling	Units tested with enumeration method	17	227
	Fish - smoked - at retail - Monitoring - official sampling	Units tested with enumeration method	21	297
	Meat from broilers (<i>Gallus gallus</i>) - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling	Units tested with enumeration method	5	38
	Meat from pig - meat products - cooked, ready-to-eat - chilled - at retail - Monitoring - official sampling	Units tested with enumeration method	36	5827
2011-12-19	Fishery products, unspecified - ready-to-eat - chilled - at retail - Monitoring - official sampling	<i>L. monocytogenes</i> > 100 cfu/g		0
	Fish - smoked - at retail - Monitoring - official sampling	<i>L. monocytogenes</i> > 100 cfu/g		0
	Meat from pig - meat products - raw and intended to be eaten raw - at retail - domestic production - Monitoring - official sampling - delicatessen	Comment	raw ham, dry cooked sausages smoked or not	this line should be erased (only salmonella has been tested, see specific table)
	Fishery products, unspecified - raw - chilled - at retail - domestic production - Monitoring - official sampling	<i>L. monocytogenes</i> > 100 cfu/g		0

2.4 E. COLI INFECTIONS

2.4.1 General evaluation of the national situation

A. Verotoxigenic Escherichia coli infections general evaluation

History of the disease and/or infection in the country

For any information, check website of CNR and INVS (see part "additional information in Humans)

National evaluation of the recent situation, the trends and sources of infection

In accordance with Directive (EC) N°2003-99, monitoring plans on minced beef meat (possibly eaten raw or low cooked) sampled at production or retail stage are conducted yearly since 2006. In 2009, the annual monitoring plan includes also raw milk cheese sampled at production stage.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

No link has been demonstrated between contamination in foodstuff by STEC serotype considered as pathogen (other than O157:H7) and human cases.

Recent actions taken to control the zoonoses

Revision of definitions of pathogen STEC

Avis AFSSA n°2008-SA-0031 and 2010-SA-0031 available on AFSSA's website

Creation of a national net of official laboratories for VTEC (17 labs) directed by the NRL: diffusion of the official method (LCR method) ISO 13 136 .

Suggestions to the Community for the actions to be taken

Harmonisation of possible management options to apply when strains other than O157:H7 are identified.

Urgent need of harmonization of pathogenic STEC strains definition of at European Union level.

Urgent need of harmonization and standardization of detection methods at international level (ISO method).

Additional information

See websites referenced in TF "general evaluation" :

Institut national de Veille sanitaire (InVS)

National laboratory center (human): CNR

The NRL for E.coli is:

VET AGRO SUP Campus vétérinaire de Lyon

LNR Escherichia coli STEC

Laboratoire d'Etudes des microorganismes
alimentaires pathogènes (LMAP)

1 avenue Bourgelat

69280 Marcy l'Etoile

laboratoire.umap@vet-lyon.fr

Specific information about VTEC

2.4.2 E. coli infections in humans

A. Verotoxigenic Escherichia coli infections in humans

Reporting system in place for the human cases

See additional information

Case definition

-

Diagnostic/analytical methods used

-

Notification system in place

-

History of the disease and/or infection in the country

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

Useful information about human surveillance and cases on CNR and INVS websites:

<http://www.pasteur.fr/ip/easysite/go/03b-00003I-018/actualites-rapports>

and

<http://www.invs.sante.fr/surveillance/shu/default.htm>

2.4.3 Escherichia coli, pathogenic in foodstuffs

Table VT E. coli in food

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Verotoxigenic E. coli (VTEC)	Verotoxigenic E. coli (VTEC) - VTEC O157	Verotoxigenic E. coli (VTEC) - VTEC non-O157	Verotoxigenic E. coli (VTEC) - VTEC, unspecified	Verotoxigenic E. coli (VTEC) - VTEC O145:H28 - eae positive vtx1 positive	Verotoxigenic E. coli (VTEC) - VTEC O157:H7 - eae positive vtx2 positive	Verotoxigenic E. coli (VTEC) - VTEC O26:H11 - eae positive vtx1 positive
Meat from bovine animals - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Monitoring - official sampling	CCA	Single	25g	2476	6	1	5	0	1	1	4

Footnote:

The method is described in technical specification technique ISO/WD TS 13136 « Food Microbiology ». Horizontal method for detection of E. coli shigatoxin producers: O157, O26, O103, O111 et O145 » recommended by the LCR.

O91 is not included according a national evaluation.

2.4.4 Escherichia coli, pathogenic in animals

A. Verotoxigenic Escherichia coli in cattle (bovine animals)

Monitoring system

Sampling strategy

-

Methods of sampling (description of sampling techniques)

Animals at farm

-

Animals at slaughter (herd based approach)

-

Case definition

Animals at farm

-

Animals at slaughter (herd based approach)

-

Vaccination policy

-

Other preventive measures than vaccination in place

-

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Notification system in place

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

No monitoring plan in 2009. See "general evaluation". Monitoring plans foreseen in 2010 and 2011.

2.5 TUBERCULOSIS, MYCOBACTERIAL DISEASES

2.5.1 General evaluation of the national situation

A. Tuberculosis general evaluation

History of the disease and/or infection in the country

See invs and CNR website

CNR: <http://www.pasteur.mg/spip.php?rubrique47>

Invs: www.invs.gouv.fr

National evaluation of the recent situation, the trends and sources of infection

Risk exposure in specific departement with high density of wild fauna.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

Recent actions taken to control the zoonoses

Surveillance of specific at risk zone and decreasing policy in area with high density of wild fauna.

Suggestions to the Community for the actions to be taken

--

Additional information

For specific information on animal side consult the specific page about tuberculosis on <http://www.afssa.fr/index.htm>

2.5.2 Tuberculosis, mycobacterial diseases in humans

A. Tuberculosis due to Mycobacterium bovis in humans

Reporting system in place for the human cases

See additional information

Case definition

-

Diagnostic/analytical methods used

-

Notification system in place

-

History of the disease and/or infection in the country

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

For epidemiological information about tuberculosis in France

<http://www.invs.sante.fr/surveillance/tuberculose/default.htm>

CNR mycobacterium:

<http://cnrmyctb.free.fr/>

2.5.3 Mycobacterium in animals

A. Mycobacterium bovis in bovine animals

Status as officially free of bovine tuberculosis during the reporting year

The entire country free

France is recognised officially tuberculosis free (OTF) since December 2000 in accordance with the Community legislation (decision CE/2003/467).

Free regions

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Additional information

--

Monitoring system

Sampling strategy

Infection with *M. bovis* or *M. tuberculosis* is notifiable under the veterinary public health legislation in all animal mammal species. The TB testing programme applied in France follows the principles of Council Directive 64/432/EEC. All animals slaughtered for human consumption are officially inspected post-mortem by a veterinarian. Suspicious lesions are sampled for histological and bacteriological examination.

Frequency of the sampling

The frequency of the skin-testing depends on the geographical location of herds and area history excepted for herds considered at risk and for moving animals.

Compulsory tuberculin testing of cattle herds takes place every one to five years according to the proportion of herds in a specific area (département) sustaining a confirmed TB breakdown over the previous years. At the end of 2009, regular skin testing has been stopped in 60 "départements". The testing frequency is every four years in 5 "département", every three years in 13 "départements", every two years in 8 "départements", annual in 6 "départements" and stopped with limited areas with annual testing in 6 "départements". TB testing intervals are reviewed nationally once a year, for compliance with 64/432/EEC. For the detailed départements contact the reporting officer of the CCA.

Furthermore, herds are subjected to annual testing if they represent a high public or animal health risk (e.g. herds infected less than 10 years ago). Animals moving from a herd to another are also individually skin tested whenever the herd of origine is considered at risk.

The programme of regular tuberculin herd testing is supplemented by veterinary inspection of cattle during routine meat production at slaughterhouses. Animals with suspect tuberculous lesions (granulomas) are traced back to the herd of origin, which is then subjected to tuberculin check testing.

Type of specimen taken

Blood

Methods of sampling (description of sampling techniques)

--

Case definition

A case is an animal:

- from which *M. bovis* or *M. tuberculosis* has been isolated,
- with a positive result to a comparative skin test and with tuberculosis evoking histopathological lesions,
- with a positive result to a comparative skin test and with isolation of mycobacterias from tuberculosis group,
- with a positive PCR results and tuberculosis evoking histopathological lesions
- with a positive result to any test and belonging to an infected herd.

Diagnostic/analytical methods used

- Single intra-dermal skin test used for routine testing,
- Comparative intra-dermal skin test,
- Inspection of carcasses at slaughterhouses,
- Histological examination,
- Bacteriological examination,
- Gamma interferon test.
- PCR

Vaccination policy

--

Other preventive measures than vaccination in place

--

Control program/mechanisms

The control program/strategies in place

In 1963, at the time of the implementation of the national control programme, the aim was the fight against tuberculosis, and consequently testing herds. Since 2003, the priority is given to the protection of the free herds, which corresponds better to the situation currently met in France, a situation of end of prophylaxis and very low prevalence.

The epidemiological unit of the programme is the herd. The program takes into account the diversity of the epidemiological cycles by the inclusion of the Bovinae (*Bos taurus*, *Bos indicus*, *Bison bison*, *Bison bonasus* and *Bubalus bubalus*) and of the Capra.

The testing of tuberculous animals in herds is founded on the clinical or allergic diagnosis of the disease. The diagnosis of certainty is based on the bacteriological isolation of *M. bovis* and *M. tuberculosis*. The frequency of herd testings can be reduced in certain départements if the annual prevalence rate of cattle herds infected is particularly low. The monitoring system is centred on the herds at risk. The bovine herds tested negative are qualified "officially tuberculosis free".

The reduction of the frequency of tuberculin-test is combined with the control of the risks of infection of herds. Whenever a new herd is created, the tests of tuberculosis qualification are carried out. The free status is also subject to the respect of the preventive measures against the risks related to the introduction of an animal.

Recent actions taken to control the zoonoses

Studies in wild fauna

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

In case of isolation of *M. bovis* or *M. tuberculosis* from cattle, the herd of origin is considered as infected. Total depopulation of this herd is compulsory.

Notification system in place

Notification is mandatory

Results of the investigation

In 2008, more than 240 000 herds, housing nearly 20 million bovines were covered by the French In 2009, more than 230 000 herds, housing nearly 14.2 million bovines were covered by the French programme of prophylaxis against bovine tuberculosis (Cf. Table) Out of these, 768,000 animals were skin tested from 17,800 herds.

The geographical distribution of the outbreaks of bovine tuberculosis on the last years shows that the residual outbreaks are located mainly in the south of the country, and in 2008 another area of concern has been identified in Côte-d'Or département (Burgundy)

Specific study:

For 50 years now, tuberculosis due to *Mycobacterium bovis* (TB) has been described in wildlife species of several countries throughout the world. Depending on the context, wild animals can be considered as sentinel or reservoirs for cattle and/or humans. In France, TB was discovered in 2001 in wild ungulates in the Brotonne Forest, Normandy. Despite the implementation of adapted control measures, the infection was still present in 2006 in 20% of red deer and 30% of wild boars. Thus, total depopulation of wild reddeer, considered as the main reservoir of TB, was exceptionally decided, implemented and seems to be effective. In Burgundy, where TB in cattle has re-emerged since 2002, grouped cases have been identified in wild boars since 2007 and in badgers since 2009. As a preventive measure, a strong reduction of these species' populations was decided to reduce the risk of spillback to cattle. Elsewhere in France, sporadic detection of TB-cases in wild boars seems to reveal the persistence of the infection either in cattle and/or in the environment. In each of these situations, the same genotypes of *M. bovis* strains isolated from wildlife and cattle were disclosed, showing that TB evolves in a multi-host system, hampering the sanitary management of this notifiable disease, which has nevertheless nearly been eradicated from cattle. See http://www.invs.sante.fr/beh/2010/hs/index.htm#12_en

National evaluation of the recent situation, the trends and sources of infection

The annual herd prevalence rate, which was 0.9% in 1984, decreased to 0.05% in 2008. . Although the downward trend of the annual herd rates of prevalence and incidence indicates an increase during the last years, the situation is still favorable in France.

Abstract

Report on bovine tuberculosis surveillance in 2009: overall low prevalence but reinforced control in certain areas

In 2009, the prevalence of bovine tuberculosis in France was 0.04 % and the country has been officially recognized as free of bovine tuberculosis for several years. The aim of the surveillance is the early detection of any outbreak, in order to continue the eradication of the disease and to maintain the disease free status within herds and for the whole territory.

Due to the detection of a few zones where the disease still

persists, surveillance is enhanced in these same areas.

See <http://www.afssa.fr/bulletin-epidemiologique/Documents/BEP-mg-BE40.pdf>

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

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Additional information

NRL laboratory: ANSES Lerpaz, Unité Zoonoses Bactériennes, 94706 Maisons-Alfort Cedex, France

<http://www.afssa.fr/Documents/SANT-Fi-TUB.pdf>

http://www.invs.sante.fr/beh/2010/hs/index.htm#12_en

<http://www.afssa.fr/bulletin-epidemiologique/Documents/BEP-mg-BE40.pdf>

For wild fauna:

<http://www.academie-veterinaire-defrance.org/bulletin/pdf/2006/Numero05/393.pdf>

Net of hunters and wild faune national association with passive or active surveillance study:

ONCFS: <http://www.oncfs.gouv.fr/>

Fédération nationale des chasseurs: <http://www.chasseurdefrance.com/>

Specific study about wild fauna surveillance:

<http://www.academie-veterinaire-defrance.org/bulletin/pdf/2009/03.pdf>

B. Mycobacterium bovis in farmed deer

Monitoring system

Sampling strategy

Farmed deer and goats : examination of lesions in slaughterhouse (no routine tuberculin tests)

Frequency of the sampling

--

Type of specimen taken

Methods of sampling (description of sampling techniques)

--

Case definition

--

Diagnostic/analytical methods used

--

Vaccination policy

--

Other preventive measures than vaccination in place

--

Control program/mechanisms

The control program/strategies in place

--

Recent actions taken to control the zoonoses

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

--

Notification system in place

--

Results of the investigation

--

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

--

Additional information

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Table Tuberculosis in other animals

	Source of information	Sampling unit	Units tested	Total units positive for Mycobacterium	M. bovis	M. tuberculosis	Mycobacterium spp., unspecified	M. avium complex - M. avium subsp. avium	M. avium complex - M. avium subsp. paratuberculosis	M. caprae	M. microti
Antelopes - zoo animal - at zoo - Clinical investigations	Zoo vet. practitioners	Animal	1	1	0	0	1	0	0	0	0
Badgers - wild - from hunting - Surveillance ¹⁾	ONCFS	Animal	78	65	26		31	8			
Badgers - wild - from hunting - Survey (5 districts) ²⁾	CCA	Animal	921	45	45						
Cats - pet animals - Clinical investigations	Private vet	Animal	8	5			2				3
Cattle (bovine animals) - at slaughterhouse - Surveillance - official controls ³⁾	CCA	Herd	162	145	111	0	27	6	1		
Coypu - from hunting - Survey ⁴⁾	CCA	Animal	91	0							
Crocodile - zoo animals - at zoo - Clinical investigations	Zoo vet. practitioners	Animal	1	1	0	0	1	0	0	0	0
Deer - farmed - at slaughterhouse - animal sample - Surveillance - official controls ⁵⁾	Local vet services	Animal	2824	1	1						
Deer - wild - from hunting - Survey ⁶⁾	CCA	Animal	322	13	3		8	2			
Deer - wild - red deer - from hunting - Surveillance ⁷⁾	NRL	Animal	14	13	3		8	2			
Deer - wild - roe deer - from hunting - Surveillance	NRL	Animal	1	1	1						
Deer - zoo animals - at zoo - Clinical investigations	Zoo vet. practitioners	Animal	11	1	0	0	1	0	0	0	0
Dogs - pet animals - Clinical investigations	Private vet	Animal	5	2		1	1				
Fish - aquarium fish - at zoo - Clinical investigations	Zoo vet. practitioners	Animal	21	14	0	0	14	0	0	0	0

Table Tuberculosis in other animals

	Source of information	Sampling unit	Units tested	Total units positive for Mycobacterium	M. bovis	M. tuberculosis	Mycobacterium spp., unspecified	M. avium complex - M. avium subsp. avium	M. avium complex - M. avium subsp. paratuberculosis	M. caprae	M. microti
Foxes - wild - from hunting - Surveillance ⁸⁾	ONCFS	Animal	119	5	2	0	0	3	0	0	0
Kangaroos - wild - Tree-kangaroo - at zoo - Clinical investigations	Zoo vet. practitioners	Animal	3	0	0	0	0	0	0	0	0
Pigs - fattening pigs - at slaughterhouse - animal sample - Surveillance - official controls	CCA	Animal	44	24	1		5	18			
Salamander - wild - at hospital or care home - Clinical investigations	private vet. practitioners	Animal	1	0	0	0	0	0	0	0	0
Sea lion - zoo animals - at zoo - Clinical investigations	Zoo vet. practitioners	Animal	8	2	0	0	2	0	0	0	0
Wild boars - wild - from hunting - Surveillance	Local veterinary services	Animal	1031	116	28	0	88	16	0	0	0

	M. pinnipedii
Antelopes - zoo animal - at zoo - Clinical investigations	0
Badgers - wild - from hunting - Surveillance ¹⁾	
Badgers - wild - from hunting - Survey (5 districts) ²⁾	
Cats - pet animals - Clinical investigations	
Cattle (bovine animals) - at slaughterhouse - Surveillance - official controls ³⁾	

Table Tuberculosis in other animals

	M. pinnipedii
Coypu - from hunting - Survey ⁴⁾	
Crocodile - zoo animals - at zoo - Clinical investigations	0
Deer - farmed - at slaughterhouse - animal sample - Surveillance - official controls ⁵⁾	
Deer - wild - from hunting - Survey ⁶⁾	
Deer - wild - red deer - from hunting - Surveillance ⁷⁾	
Deer - wild - roe deer - from hunting - Surveillance	
Deer - zoo animals - at zoo - Clinical investigations	0
Dogs - pet animals - Clinical investigations	
Fish - aquarium fish - at zoo - Clinical investigations	0
Foxes - wild - from hunting - Surveillance ⁸⁾	0
Kangaroos - wild - Tree-kangaroo - at zoo - Clinical investigations	0
Pigs - fattening pigs - at slaughterhouse - animal sample - Surveillance - official controls	
Salamander - wild - at hospital or care home - Clinical investigations	0
Sea lion - zoo animals - at zoo - Clinical investigations	0

Table Tuberculosis in other animals

	M. pinnipedii
Wild boars - wild - from hunting - Surveillance	0

Comments:

- 1) Suspect sampling
- 2) Survey in 5 districts: Côte d'Or, Dordogne, Brotonne, Ariège, Pyrénées-Atlantique, Landes
- 3) This result is an incidence data (prevalence in 2010 for cattle: 0.07%, number of herds officially free: >99.9%)
- 4) 2 districts: Cote d'Or and Dordogne
- 5) suspect sampling after meat inspection. 2824 units tested correponds to meat inspection.
- 6) Survey in 3 districts: Côte d'Or, Dordogne, Ariège
- 7) ERASE
- 8) 2 districts Cote d'Or, Dordogne

Footnote:

- Results are from NRL activity of confirmation.
- ONCFS stands for National Office for Hunting and Wildlife. It is a public institution of the State of an administrative nature under the supervision of the ministers in charge of ecology and agriculture.

The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-20	Coypu - from hunting - Survey	Source of information		CCA
	Coypu - from hunting - Survey	Sampling unit		Animal
	Coypu - from hunting - Survey	Comment		2 districts: Cote d'Or and Dordogne
	Coypu - from hunting - Survey	Total units positive for Mycobacterium		0
	Coypu - from hunting - Survey	Units tested		91
	Foxes - wild - from hunting - Surveillance	Units tested	6	119
	Foxes - wild - from hunting - Surveillance	Comment		2 districts Cote d'Or, Dordogne
	Wild boars - wild - from hunting - Surveillance	Mycobacterium spp., unspecified	77	88
	Wild boars - wild - from hunting - Surveillance	M. bovis	23	28
	Wild boars - wild - from hunting - Surveillance	Units tested	161	1031
	Deer - wild - from hunting - Survey	Units tested	14	322
	Deer - farmed - at slaughterhouse - animal sample - Surveillance - official controls	Comment	suspect sampling after meat inspection. 1000 units tested correponds to meat inspection.	suspect sampling after meat inspection. 2824 units tested correponds to meat inspection.
	Deer - farmed - at slaughterhouse - animal sample - Surveillance - official controls	Units tested	1000	2824
Deer - farmed - at slaughterhouse - animal sample - Surveillance - official controls	Comment		suspect sampling after meat inspection. 1000 units tested correponds to meat inspection.	

Date of Modification	Row name	Column name	Old value	New value
2011-12-20	Deer - farmed - at slaughterhouse - animal sample - Surveillance - official controls	Units tested	1	1000
	Deer - wild - red deer - from hunting - Surveillance	Comment		ERASE
	Deer - wild - from hunting - Survey	Comment		Survey in 3 districts: Côte d'Or, Dordogne, Ariège
	Badgers - wild - from hunting - Survey - 5 districts	Source of information		CCA
	Deer - wild - from hunting - Survey	Total units positive for Mycobacterium		13
	Deer - wild - from hunting - Survey	Source of information		CCA
	Deer - wild - from hunting - Survey	M. bovis		3
	Deer - wild - from hunting - Survey	Units tested		14
	Deer - wild - from hunting - Survey	M. avium complex - M. avium subsp. avium		2
	Deer - wild - from hunting - Survey	Sampling unit		Animal
	Deer - wild - from hunting - Survey	Mycobacterium spp., unspecified		8
	Badgers - wild - from hunting - Surveillance	Comment		Suspect sampling
	Badgers - wild - from hunting - Survey - 5 districts	M. bovis		45
	Badgers - wild - from hunting - Survey - 5 districts	Total units positive for Mycobacterium		45
	Badgers - wild - from hunting - Survey - 5 districts	Units tested		921
	Badgers - wild - from hunting - Survey - 5 districts	Sampling unit		Animal

Date of Modification	Row name	Column name	Old value	New value
2011-12-20	Badgers - wild - from hunting - Survey - 5 districts	Comment		Survey in 5 districts: Côte d'Or, Dordogne, Brotonne, Ariège, Pyrénées-Atlantique, Landes

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

If present, the row "Total -1" refers to analogous data of the previous year.

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	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			
France ¹⁾	225241	19421945	225015	99.9	166	.07	See footnote and comment	700842	151080	402	151
Total : ²⁾	225241	19421945	225015	99.9	166	.07	N.A.	700842	151080	402	151

Comments:

¹⁾ No routine tests (60 districts) , test once a year: 4 districts, teste every two years : 6 districts, f teste every 4 years, others 11 districts

²⁾ N.A.

Footnote:

The interval between two tuberculinations test varies according the departement and so, the situation: annually, every 2 years, every 3 years, every 3 years for bovine > 24 month, every 4 years or no test but only in certain town if a risk zone appears. See details in text form.

Each bovine slaughtered has a post mortem examination.

2.6 BRUCELLOSIS

2.6.1 General evaluation of the national situation

A. Brucellosis general evaluation

History of the disease and/or infection in the country

Bovine brucellosis: last outbreak reported in 2003.

Ovine and Caprine brucellosis: last outbreak reported in 2003.

Porcine brucellosis: sporadic outbreaks in free-ranged farms due to *Brucella suis* biovar 2. The source is the wild boar and hares population where *B. suis* biovar 2 is enzootic. This biovar is classically considered as non-pathogenic to humans, but two human cases were reported in France in 2004 and 2005 in patients with comorbidity and due to regular and important exposure to wild boars and/or hares.

National evaluation of the recent situation, the trends and sources of infection

-no change

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Additional information

<http://www.afssa.fr/index.htm>

see specific web page "brucellose"

<http://www.afssa.fr/Documents/SANT-Fi-BRU.pdf>

<http://www.afssa.fr/Documents/MIC-Fi-Brucella.pdf>

Specific study for wild fauna:

<http://www.academie-veterinaire-defrance.org/bulletin/pdf/2009/03.pdf>

2.6.2 Brucellosis in humans

A. Brucellosis in humans

Reporting system in place for the human cases

Informations are available on INVS website

NRL for animal brucellosis and NRC for brucella are the same.

Case definition

-

Diagnostic/analytical methods used

--

Notification system in place

http://www.invs.sante.fr/surveillance/brucellose/envoi_souche.pdf

History of the disease and/or infection in the country

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

<http://www.invs.sante.fr/surveillance/brucellose/default.htm>

2.6.3 Brucella in animals

A. Brucella abortus in bovine animals

Status as officially free of bovine brucellosis during the reporting year

The entire country free

France is officially brucellosis free (OBF) since September 2005 in accordance with the Community legislation (decision CE/2003/467).

Free regions

-

Additional information

-

Monitoring system

Sampling strategy

Bovine brucellosis is a notifiable disease under the domestic animal health legislation. All abortions are required to be notified. Aborting animals and abortion material are sampled and tested both serologically and bacteriologically.

The epidemiological unit of the monitoring system is the herd. Before September 2005, herds were monitored either by an annual serological testing of animals more than 12 months old, or by bulk milk testing (Ring-Test or ELISA test) four times per year. Since September 2005, herds are monitored either by an annual serological testing of 20 % animals more than 24 months old, or by bulk milk testing (Ring-Test or ELISA test, and ELISA test since april 2008) once a year.

Frequency of the sampling

-

Methods of sampling (description of sampling techniques)

Blood, milk and organ/tissues are sampled as appropriate (see sampling strategy).

Case definition

A case is an animal:

- from which Brucella sp has been isolated,
- With a positive result to serological tests when originating from an infected herd,
- with a positive result to a PCR test.

Diagnostic/analytical methods used

The diagnostic methods are serology (serum testing by: RBT, CF, ELISA and bulk milk testing by ELISA), bacteriology, PCR, and brucellin skin-test.

Vaccination policy

Vaccination of animals against brucellosis is expressly forbidden by animal health legislation.

Other preventive measures than vaccination in place

-

Control program/mechanisms

The control program/strategies in place

Bovine brucellosis control is based on technical collaboration between the veterinary services, the sanitary veterinarians, the veterinary or the dairy interprofessional laboratories and the Animal Health Groups (AHG). In each department, an AHG brings together the stockbreeders, the veterinary services, the agricultural organisations, the veterinary practitioners and veterinary laboratories.

The regulation stipulates that any cattle herd shall acquire and preserve the "officially bovine brucellosis free" status. The regulation lays down that vaccination is forbidden. Herd testing and introduction tests for movements considered at risk are mandatory. Abortions, which are mandatory notifiable, have to be officially investigated. Slaughtering of infected animals is mandatory. The total depopulation of an infected herd is mandatory.

The AHG created for more than 40 years inform the stockbreeders and share out the costs of the surveillance/eradication program among the stockbreeders (members of AHG). Under the supervision of the DDPP (local veterinary services, formerly known as DDSV), the sanitary veterinarians take the official blood samples, which are analysed by the departmental (public) veterinary laboratories.

The interprofessional dairy laboratories perform the routine test on bulk milk. These laboratories are approved for testing brucellosis and are regularly involved in interlaboratory ring-tests organised by the National Reference Laboratory for brucellosis (Afssa). The local vet service receives the results of the analyses, ensures the follow-up of the herd status, performs the procedures for differential diagnosis of the disease as well as supervises the cleaning and disinfection of herds infected.

The CCA (General directorate for food - Unit animal health) works out the regulation and collects the epidemiological data. Afssa (bacterial zoonoses Unit - national and EU reference laboratory and OIE/FAO of reference for animal brucellosis), brings a scientific and technical support to CCA, identifies the strains of *Brucella* isolated in France and controls all the reagents/batches.

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

In case of isolation of *Brucella* from cattle, the herd of origin is considered as infected and total depopulation is implemented.

Notification system in place

Bovine brucellosis is a notifiable disease under animal health legislation. Notification of abortion is compulsory. Aborting animals and abortion material are sampled for serological and bacteriological examinations.

Results of the investigation

In 2009, more than 230,000 herds, housing nearly 14.2 million bovines were included in the surveillance program of bovine brucellosis. In 2009, 136,000 herds were submitted to serological tests and 68,000 herds were submitted to tests on bulk milk for brucellosis; nearly 35,000 herds reported abortions.

National evaluation of the recent situation, the trends and sources of infection

The annual herd prevalence rate, which was 1.65% in 1984, decreased to 0% in 2004 and remained as such up to now. The annual herd incidence rate, which was 0.5% in 1985, decreased to 0% in 2004 and

France - 2010 Report on trends and sources of zoonoses

remained as such up to now.

The last abortion case caused by *Brucella* in cattle occurred in June 2002. Therefore, bovine brucellosis is considered eradicated and France achieved Officially Brucellosis Free status in September 2005.

Report on bovine brucellosis surveillance in 2009:

surveillance requirements in a stabilised context

France has been recognized as officially free of bovine brucellosis by the European Commission since 2005 and no outbreak of this disease has been reported since 2003. The national surveillance programme is devoted to detecting any reintroduction so as to maintain this disease free status. It consists of annual serological surveillance within cattle herds as well as abortion notification. The implementation of this surveillance programme is satisfactory. Nevertheless, positive serological reactions are regularly observed, although none are confirmed after specific investigations. Cross-reactions, well known in brucellosis serology, explain these false positive results which need appropriate management.

See

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

The risk of humans contracting brucellosis from bovine animals is assumed to be extremely low.

Additional information

Additional information can be obtained in the report sent to EC (Health and consumer directorate), dealing with the informations about the diseases targeted in annex E of directive 64/432 of the council.

B. Brucella melitensis in goats

Status as officially free of caprine brucellosis during the reporting year

The entire country free

-

Free regions

Sixty-four "départements" of France are recognised officially free for ovine and caprine brucellosis (*B. melitensis*) since 2001 (decision CE/93/52) and no case has been reported in France since 2003.

Additional information

-

Monitoring system

Sampling strategy

On serum (Rose Bengal Test, Complement fixation Test)

Notification and investigation of cases of abortion by Bacteriological examination

Frequency of the sampling

-

Methods of sampling (description of sampling techniques)

-

Case definition

An infected animal is an animal :

From which *Brucella* sp has been isolated (except *B. ovis*): *B. abortus*, *B. melitensis*, or with a positive serological result when belonging to an infected flock.

Diagnostic/analytical methods used

-

Vaccination policy

Vaccination of bovines, sheep and goats against brucellosis is forbidden.

Other preventive measures than vaccination in place

-

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

In case of isolation of *Brucella* from goats, the herd of origin is considered as infected and total depopulation is implemented.

Notification system in place

France - 2010 Report on trends and sources of zoonoses

Caprine brucellosis is a notifiable disease under animal health legislation. Notification of abortion is compulsory. Aborting animals and abortion material are sampled for serological and bacteriological examinations.

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

The annual herd prevalence rate, which was 0.4% in 1993, it has been 0% since 2003. The annual herd incidence rate, which was 0.24% in 1991, it has been 0% since 2003.

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

Additional information can be obtained in the report sent to EC (Health and consumer directorate), dealing with the informations about the diseases targeted in annex E of directive 64/432 of the council and in the report about french surveillance of ovine and caprine brucellosis in officially free french departements

C. Brucella melitensis in sheep

Status as officially free of ovine brucellosis during the reporting year

The entire country free

-

Free regions

Sixty-four "départements" of France are recognised officially free for ovine and caprine brucellosis (*B. melitensis*) since 2001 (decision CE/93/52) and no case has been detected since 2003.

See "Brucella melitensis in goats" for other sections.

Additional information

-

Monitoring system

Sampling strategy

-

Frequency of the sampling

-

Methods of sampling (description of sampling techniques)

-

Case definition

See goats

Diagnostic/analytical methods used

-

Vaccination policy

-

Other preventive measures than vaccination in place

-

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-In case of isolation of *Brucella* from sheep, the herd of origin is considered as infected and total depopulation is implemented.

Notification system in place

-Ovine brucellosis is a notifiable disease under animal health legislation. Notification of abortion is compulsory. Aborting animals and abortion material are sampled for serological and bacteriological

examinations.

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

The annual herd prevalence rate, which was 2.8% in 1994, it has been 0% since 2003. The annual herd incidence rate, which was 0.98% in 1991, it has been 0% since 2003.

Report on ovine and caprine brucellosis surveillance in 2009: favourable epidemiological context but surveillance improvements needed

No outbreak of ovine and caprine brucellosis has been reported in France since the end of 2003. Vaccination in the whole country was suspended in early 2008. In 2010, 64 départements were officially recognized as disease free by the European Commission. The national surveillance programme is devoted to detecting any reintroduction and to extending this status throughout the whole country. It consists of annual serological surveillance within flocks as well as abortion notification. The implementation of this surveillance is satisfactory as regards serology but insufficient for abortion notification. Positive serological reactions are regularly notified, although none are confirmed after specific investigations. Cross-reactions, well known in brucellosis serology, explain these false positive results which need appropriate management. A programme aiming at improving abortion reporting is still under discussion.

See <http://www.afssa.fr/bulletin-epidemiologique/Documents/BEP-mg-BE40.pdf>

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

Additional information can be obtained in the report sent to EC (Health and consumer directorate), dealing with the informations about the diseases targeted in annex E of directive 64/432 of the council and in the report about french surveillance of ovine and caprine brucellosis in officially free french départements. year 2009.

D. B. suis in animal - Pigs - at farm - Clinical investigations

Monitoring system

Sampling strategy

Sampling is done in case of suspicion (abortions)

Frequency of the sampling

-

Methods of sampling (description of sampling techniques)

-

Case definition

-A herd is declared infected when : Brucella is isolated in the herd or serological reactions concern more than 10% of breeding animals.

Diagnostic/analytical methods used

-bacteriology/serology

Vaccination policy

-forbidden

Other preventive measures than vaccination in place

- fences to prevent contact with wild boars and hares.

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

In case of positive sample, all the pigs of the holding are slaughtered with special hygiene measures. If the biovar is "Brucella suis biovar 2", then the meat is not heat treated; otherwise, it must be heat treated.

Notification system in place

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

In 2008, 1 outbreak with "Brucella suis biovar 2" was reported. All the pigs of the holding were slaughtered. This positive case was a free range holding; contamination seems to come from wild boars (uncontrolled mating...).

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

-

Table Brucellosis in other animals

	Source of information	Sampling unit	Units tested	Total units positive for Brucella	B. abortus	B. melitensis	B. suis	Brucella spp., unspecified	B. suis - biovar 2
Hares - wild - Surveillance ¹⁾	ONCFS	Animal	6	6					6
Pigs - breeding animals - not raised under controlled housing conditions - at farm - animal sample - Clinical investigations ²⁾	Local vet services and lab	Animal	513	164			164		14
Wild boars - wild - from hunting - Surveillance	Local vet laboratories	Animal	12	12					12

Comments:

¹⁾ Dead animal are collected by a national net of surveillance called SAGIR

²⁾ The 164 animals were from 10 herds. On 24 positive animals, bacteriology was performed on aborted animals and among these animals, 14 isolates have been obtained. These 14 includes in the total of 164 were B. Suis biovar 2. one serology in a farm epidemiologically linked to a confirmed outbreak.

Footnote:

- All the analyses reported here were performed by NRL. The NRL performs analyses of confirmation. Only these analyses are reported here. The total number of analyses performed by the local labs when no confirmation is needed are not known.

- SAGIR (epidemiological surveillance of wildlife diseases and poisoning) is directed by ONCFS.

- ONCFS is The National Office for Hunting and Wildlife is a public institution of the State of an administrative nature under the supervision of the ministers in charge of ecology and agriculture.

The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2011-12-21	Pigs - breeding animals - not raised under controlled housing conditions - at farm - animal sample - Clinical investigations	Total units positive for Brucella	12	164
	Pigs - breeding animals - not raised under controlled housing conditions - at farm - animal sample - Clinical investigations	B. suis	1	164
	Pigs - breeding animals - not raised under controlled housing conditions - at farm - animal sample - Clinical investigations	Comment	The twelve animals were from two herds: Bacteriology performed on aborted seropositive animals (11 animals), one serology in a farm epidemiologically linked to a confirmed outbreak.	The 164 animals were from 10 herds. On 24 positive animals, bacteriology was performed on aborted animals and among these animals, 14 isolates have been obtained. These 14 includes in the total of 164 were B. Suis biovar 2. one serology in a farm epidemiologically linked to a confirmed outbreak.
	Pigs - breeding animals - not raised under controlled housing conditions - at farm - animal sample - Clinical investigations	B. suis - biovar 2	11	14
	Pigs - breeding animals - not raised under controlled housing conditions - at farm - animal sample - Clinical investigations	Units tested	12	513

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

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of existing		Officially free herds		Infected herds		Surveillance			Investigations of suspect cases				
	Herds	Animals	Number of herds	%	Number of herds	%	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 microbio logically	Number of animals positive microbio logically	Number of suspended herds
Ain	1277	31256	1275	99.84	0	0	507	11025	0	0	0	0	0	2
Aisne	1269	30022	1267	99.84	0	0	526	7684	0	4	4	0	0	2
Allier	2332	185150	2324	99.66	0	0	387	22364	0	21	0	0	0	8
Alpes-Maritimes	519	64873	514	99.04	0	0	374	56710	0	4581	14	14	0	13
Alpes-de-Haute-Provence	791	275078	737	93.17	0	0	693	145846	0	34495	96	87	0	67
Ardennes	748	38543	748	100	0	0	104	30483	0	162	1	1	0	0
Ardèche	1901	105492	1901	100	0	0	782	3775	0	0	0	0	0	0
Ariège	1491	146084	1478	99.13	0	0	1211	38517	0	3548	10	0	0	53
Aube	821	55242	818	99.63	0	0	214	9752	0	1236	4	0	0	3
Aude	345	41652	339	98.26	0	0	102		0	0	0	0	0	0
Aveyron	4475	847522	4453	99.51	0	0	3860	124774	0	170	120	0	0	22
Bas-Rhin	972	53755	944	97.12	0	0	409	5457	0	9	1	0	0	10
Bouches-du-Rhône	521	269824	471	90.4	0	0	322	144912	0	13	0	13	0	11

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

Calvados	3639	64415	2885	79.28	0	0	737	25578	0	0	0	0	0	0
Cantal	1246	41387	1245	99.92	0	0	299	5127	0	6	0	0	0	1
Charente	1860	98651	1858	99.89	0	0	38	825	0	0	0	0	0	2
Charente-Maritime	1504	36428	1504	100	0	0	58	3178	0	2	1	0	0	0
Cher	1122	75508	1121	99.91	0	0	494	31564	0	0	0	0	0	1
Corrèze	1849	61173	1848	99.95	0	0	1127		0	17	4	1	0	1
Corse-du-Sud	431	65405	399	92.58	0	0	431	34526	0	3	0	0	0	3
Creuse	1882	89457	1882	100	0	0	385	13597	0	0	0	0	0	0
Côte-d'Or	798	48746	795	99.62	0	0	181		0	3	3	1	0	3
Côtes-d'Armor	2879	20112	2879	100	0	0	1187	4258	0	0	0	0	0	0
Deux-Sèvres	2594	763832	2593	99.96	0	0	714	90848	0	38	38	17	0	1
Dordogne	3120	76468	3110	99.68	0	0	1183	34497	0	3458	16	21	0	10
Doubs	881	9744	881	100	0	0	127		0	2	2	1	0	0
Drôme	1286	226219	1257	97.74	0	0	1083	68997	0	516	4	1	0	4
Départements d'Outre-Mer					0		0							
Essonne	97	550	91	93.81	0	0	21		0	0	0	0	0	6

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

Eure	1904	37407	1903	99.95	0	0	760	9671	0	0	0	0	0	1
Eure-et-Loir	692	10188	692	100	0	0	58	1611	0	0	0	0	0	0
Finistère	2169	14496	2169	100	0	0	431	4053	0	0	0	0	0	0
Gard	1117	87910	1047	93.73	0	0	495	26532	0	0	0	0	0	0
Gers	995	25328	993	99.8	0	0	170	5453	0	1237	12	0	0	2
Gironde	2468	18710	2468	100	0	0	304	4369	0	0	0	0	0	0
Haut-Rhin	565	18483	555	98.23	0	0	208	1656	0	108	5	0	0	4
Haute-Corse	518	122179	450	86.87	0	0	478	74000	0	2556	2556	5	0	48
Haute-Garonne	2118	106544	1931	91.17	0	0	1177	32153	0	260	2	1	0	2
Haute-Loire	1746	145987	1739	99.6	0	0	1125	27662	0	423	0	0	0	7
Haute-Marne	1075	97686	1047	97.4	0	0	115	5095	0	4	0	0	0	2
Haute-Savoie	812	46996	747	92	0	0	320	9519	0	3	0	0	0	3
Haute-Saône	1363	33831	1362	99.93	0	0	141		0	0	0	0	0	1
Haute-Vienne	3475	302834	3472	99.91	0	0	361	16480	0		0	43	0	3
Hautes-Alpes	949	334579	914	96.31	0	0	880	184200	0	8865	28	24	0	24
Hautes-Pyrénées	1594	156085	1491	93.54	0	0	1594	22068	0	489	2	0	0	4

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

Hauts-de-Seine	6	71	6	100	0	0	7	96	0	1	0	0	0	0
Hérault	531	83718	507	95.48	0	0	299	12513	0	0	0	0	0	0
Ille-et-Vilaine	3552	33863	3551	99.97	0	0			0	0	0	0	0	1
Indre	1958	107485	1930	98.57	0	0	537	49334	0	22	22	0	0	28
Indre-et-Loire	1174	40988	1174	100	0	0	322	31764	0	146	22	24	0	0
Isère	2058	117800	1872	90.96	0	0	1809		0	63	0	0	0	1
Jura	894	13350	894	100	0	0	72	2187	0	63	0	0	0	0
Landes	848	11005	840	99.06	0	0	458		0	0	0	0	0	0
Loir-et-Cher	991	21621	991	100	0	0	264	10750	0	9	9	5	0	0
Loire	1863	70636	1859	99.79	0	0	1116	28058	0	93	6	38	0	4
Loire-Atlantique	1895	26498	1895	100	0	0			0	0	0	0	0	0
Loiret	467	19662	462	98.93	0	0	255	6689	0	0	0	0	0	5
Lot	1717	256010	1717	100	0	0	657	47412	0	0	0	0	0	0
Lot-et-Garonne	1844	19137	1840	99.78	0	0	452		0	0	0	0	0	4
Lozère	1038	161641	1035	99.71	0	0	478	29433	0	3290	37	24	0	3
Maine-et-Loire	1866	69145	1829	98.02	0	0	445	25317	0	5	0	2	0	37

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

Manche	6797	51399	6794	99.96	0	0	1788		0	25	6	0	0	3
Marne	384	11187	381	99.22	0	0	121		0	0	0	0	0	3
Mayenne	2639	29338	2637	99.92	0	0	608	4544	0	8	7	0	0	2
Meurthe-et-Moselle	992	107557	899	90.63	0	0	318		0	14	0	0	0	11
Meuse	813	65554	789	97.05	0	0	197	3747	0	3	0	0	0	3
Morbihan	1952	2337	1951	99.95	0	0	524		0	22	8	3	0	1
Moselle	718	139522	672	93.59	0	0	200	6067	0	15	0	0	0	15
Nièvre	1470	67699	1470	100	0	0	372	4662	0	0	0	0	0	0
Nord	1909	23778	1909	100	0	0	1270		0	26	11	5	0	0
Oise	1051	26893	1049	99.81	0	0	190	3238	0					2
Orne	2426	29845	2425	99.96	0	0	337	3061	0	0	0	0	0	1
Paris	5	72	5	100	0	0	2	72	0	0	0	0	0	0
Pas-de-Calais	1637	27440	1637	100	0	0	213	222	0	66	0	0	0	0
Puy-de-Dôme	1852	98619	1850	99.89	0	0	291		0	0	0	0	0	2
Pyrénées-Atlantiques	4644	1058159	4568	98.36	0	0	6444	154874	0	11582	48	397	0	50
Pyrénées-Orientales	470	31524	413	87.87	0	0	370	34040	0	2	0	2	0	2

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

Rhône	1152	37601	1110	96.35	0	0	670	22959	0	33	11	6	0	42
Sarthe	2411	17408	2411	100	0	0	405	3040	0	0	0	0	0	0
Savoie	938	83931	927	98.83	0	0	730	20448	0	54	2	0	0	1
Saône-et-Loire	2701	83751	2701	100	0	0	1405	24116	0	127	0	0	0	0
Seine-Maritime	3657	44186	3642	99.59	0	0	1266	9447	0	434	6	0	0	15
Seine-Saint-Denis	18	76	18	100	0	0	2	30	0	0	0	0	0	0
Seine-et-Marne	408	12470	340	83.33	0	0	0		0	0	0	0	0	0
Somme	1337	55651	1313	98.2	0	0	234		0	147	6	0	0	5
Tarn	2316	616475	2287	98.75	0	0	1131	41937	0	1461	25	17	0	20
Tarn-et-Garonne	691	94141	680	98.41	0	0	74	3700	0	65	2	2	0	2
Territoire de Belfort	228	2467	228	100	0	0	19	318	0	0	0	0	0	0
Val-d'Oise	79	1155	79	100	0	0	26		0	0	0	0	0	0
Val-de-Marne	23	111	22	95.65	0	0	9	167	0	0	0	0	0	1
Var	437	89193	412	94.28	0	0	320	60689	0	2104	7	4	0	5
Vaucluse	360	63336	344	95.56	0	0	348	31920	0	5901	12	10	0	12
Vendée	1931	114501	1931	100	0	0	168		0	0	0	0	0	0

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

Vienne	2670	307700	2664	99.78	0	0	348	30325		718	0	4	0	6
Vosges	1113	51996	1112	99.91	0	0	105	2938	0	24	1	0	0	1
Yonne	963	29981	961	99.79	0	0	393		0	6	5	0	0	2
Yvelines	163	3159	163	100	0	0	121		0	0	0	0	0	0
Total : ¹⁾	142267	9914673	139793	98.26	0	0	54363	2048930	0	88758	3176	773	0	614

Comments:

¹⁾ N.A.

Footnote:

Blanks means: no data

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

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of existing bovine		Officially free herds		Infected herds		Surveillance						Investigations of suspect cases								
	Herds	Animals	Number of herds	%	Number of herds	%	Serological tests			Examination of bulk milk			Information about			Epidemiological investigation					
							Number of bovine herds tested	Number of animals tested	Number of infected herds	Number of bovine herds tested	Number of animals or pools tested	Number of infected herds	Number of notified abortions whatever cause	Number of isolations of Brucella infection	Number of abortions due to Brucella abortus	Number of animals tested with serological blood tests	Number of suspended herds	Number of positive animals		Number of animals examined microbiologically	Number of animals positive microbiologically
																		Sero logically	BST		
France	225241	19421945	225098	99.94	0	0	146910	1574346	0	60526	61596	0	60590	0	0	5000	272	118	0	329	0
Total : ¹⁾	225241	19421945	225098	99.94	0	0	146910	1574346	0	60526	61596	0	60590	0	0	5000	272	118	0	329	0

Comments:

¹⁾ N.A.

2.7 YERSINIOSIS

2.7.1 General evaluation of the national situation

A. Yersinia enterocolitica general evaluation

History of the disease and/or infection in the country

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

--

Additional information

For information about yersinia in France consult the website (CNR):
<http://www.pasteur.fr/ip/easysite/go/03b-00003o-02d/actualites-rapports>

2.7.2 Yersiniosis in humans

A. Yersiniosis in humans

Reporting system in place for the human cases

-

Case definition

-

Diagnostic/analytical methods used

-

Notification system in place

-

History of the disease and/or infection in the country

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

-

2.7.3 Yersinia in animals

A. Yersinia enterocolitica in pigs

Monitoring system

Sampling strategy

Animals at farm

-

Animals at slaughter (herd based approach)

--

Methods of sampling (description of sampling techniques)

Animals at farm

-

Animals at slaughter (herd based approach)

-

Case definition

Animals at farm

-

Animals at slaughter (herd based approach)

-

Vaccination policy

-

Other preventive measures than vaccination in place

-

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Notification system in place

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

-

2.8 TRICHINELLOSIS

2.8.1 General evaluation of the national situation

A. Trichinellosis general evaluation

History of the disease and/or infection in the country

Datas of human cases available since 1876 are available at <http://monsite.wanadoo.fr/cnrdestrichinella/>

No domestic cycle since 1983 for horses (1998) and pigs (1983)

National evaluation of the recent situation, the trends and sources of infection

Since 1998, no outbreak of trichinosis following consumption of horse meat was reported in France. Since 1983, no case of trichinosis due to consumption of pig meat was reported in France.

No domestic cycle. The few human cases since 1998 comes from consumption of wild boars. Messages of prevention are given to the hunters.

In 2008, 3 cases due to *T. britovi* from wild boar.

The recent human trichinellosis outbreaks caused by wild boar meat consumption and previous studies revealing positives cases in wildlife (figure 2) show that the

sylvatic cycle still occurs

In accordance with the European regulation 2075/2005, a wildlife survey assessing the risk of transmission from wild species to pigs is required to be granted *Trichinella* free status, this survey has been conducted between august 2009 and august 2010 on foxes and wild boars. The aim of this study is to provide epidemiological data on the circulation of the parasite in wildlife in regions with large domestic pig populations.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

Since last cases in 1998, not imported human cases are due to consumption of meat from wild fauna (Local Wild boars detection of *T. britovi* and *T. spiralis*, imported meat of bear in 2005 detection of *T. nativa*). No case from horse since 1998.

Those results, together with that of the surveillance of both indoor and outdoor domestic pigs and of marketed wild boars, are in favor of a negligible risk of trichinellosis in those regions. Previous studies and human cases have shown that *Trichinella* circulates in wildlife in France. However this circulation seems to be localised to the south of France and to mountainous areas where pig production is minor.

Recent actions taken to control the zoonoses

Animals of the species sensitive to *Trichinella*, in particular domestic Solipeds, pigs and wild boars, in a systematic way or by survey, have to be tested for larvae of *Trichinella* before marketing meat.

In order to reinforce the monitoring for *Trichinella* in wild boar carcasses, a campaign was carried out in collaboration with the National Federation of Hunters (<http://www.chasseurdefrance.com/>) to increase hunters' awareness of the risk of trichinosis related to consumption of wild boar meat not tested. The hunters are obliged to test every wild boar put on the market (direct or indirect marketing) or given for collective meal. Diagnosis for *Trichinella* must be performed by peptic digestion in an approved laboratory. For private consumption they are aware of the risk of wild boar rear meat non tested and encouraged to

make trichinella tests on their own, in approved laboratory. The approved laboratories are involved in a ring-test performed by the NRL for Trichinella (Afssa-lerpaz). Control measures by freezing (-25°C/10 days) or cooking (80°C/10 min) meat were also mentioned. Each year The national hunters association conducts survey on wild boars. Some additional surveillance and inspection has been settled in France (see part trichinella in pigs)

Suggestions to the Community for the actions to be taken

Surveillance of wild boar and outdoor pig farms.

Additional information

For additional informations about human cases and french network of surveillance , consult national reference laboratory for human trichinellosis

<http://monsite.wanadoo.fr/cnrdestrichinella/>

and especially the updated report.

For animal side, consult, the specific page about trichinellosis on <http://www.afssa.fr/index.htm>

<http://www.afssa.fr/Documents/SANT-Fi-TRI.pdf>

<http://www.afssa.fr/Documents/MIC-Fi-Trichinella.pdf>

2.8.2 Trichinellosis in humans

A. Trichinellosis in humans

Reporting system in place for the human cases

-

Case definition

-

Diagnostic/analytical methods used

-

Notification system in place

--

History of the disease and/or infection in the country

-

Results of the investigation

-

Description of the positive cases detected during the reporting year

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

See Trichinellosis, general evaluation and consult the website of NRL, for updated information and french surveillance system

<http://monsite.wanadoo.fr/cnrdestrichinella/>

2.8.3 Trichinella in animals

A. Trichinella in horses

Monitoring system

Sampling strategy

Sampling is performed systematically at the slaughterhouse by competent authorities.

Frequency of the sampling

100%

Type of specimen taken

Muscle from tongue or diaphragm

Methods of sampling (description of sampling techniques)

A sample of 10 g of muscle is analysed. Another sample (10 g) is frozen (18°C) and stored for 8 weeks.

Case definition

A sample is considered positive when at least one larvae of Trichinella have been identified and confirmed by Anses (French agency for food, environmental and occupational health and safety ex AFSSA, National Reference Laboratory for Foodborne Parasites)

Diagnostic/analytical methods used

EU Reference method of detection: Magnetic stirrer method for pooled sample digestion.

Results of the investigation including the origin of the positive animals

--

Control program/mechanisms

The control program/strategies in place

Each routine laboratory participates to a national ring trial (two sessions per year) organised by the National Reference Laboratory for Food borne parasites (NRL Parasites). Analysts also participate to two-days of theoretical and practical formation also organised by the NRL Parasites.

Routine laboratories receive an agreement for Trichinella diagnosis by the Ministry of Agriculture and food (DGAL) every year.

Recent actions taken to control the zoonoses

A quality assurance system has been developed since 1999 including analysts training and since 2003 organisation of national ring trials. (See above paragraph).

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

Positive carcasses are destroyed. A veterinary investigation is also carried on to identify the origin of the positive animal (country, area, breeding conditions, epidemiological data within the area).

Notification system in place

-

Monitoring system

Sampling strategy

For categories of holdings officially recognised Trichinella-free
not relevant

National evaluation of the recent situation, the trends and sources of infection

No positive horse for Trichinella since 5 years.
(2001: one positive horse coming from Serbia; 1999: one positive horse coming from Poland).

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

Development of a quality control system has been set up in France since 1998. At first, theoretical and practical trainings for analysts were organised by the French National Reference Laboratory. Then (in 2003) ring trials were initiated with two sessions per year for each routine diagnostic laboratory. The sensitivity of larvae detection increased significantly for all routine laboratories (a total of 72 labs in France) and reach to date an average of 80% of larvae detection.
See for details: Use of proficiency samples to assess diagnostic laboratories in France performing a Trichinella digestion assay. Vallée I, Macé P, Forbes L, Scandrett B, Durand B, Gajadhar A and Boireau P. Journal of Food Protection, vol 70 (7) 2007, 1685-1690

B. Trichinella in pigs

Number of officially recognised Trichinella-free holdings

No Trichinella-free holdings has been recognised in France for the moment. That's why we are still testing 1/1000 of fattenings pigs. France wishes to set up this categorization system for these holdings.

Categories of holdings officially recognised Trichinella-free

This categorisation system has not been retained in France for the moment, but France wishes to set up this categorization system for these holdings. A national survey has been conducted between august 2009 and august 2010 on foxes and wild boars to evaluate the risk (see table for the results).

Officially recognised regions with negligible Trichinella risk

No region with negligible Trichinella risk has been recognised in France.

Monitoring system

Sampling strategy

General

Systematic sampling (outdoor pigs and breeding pigs). In the "Food Chain Information" ("ICA") system, received by the slaughterhouse operator, the information about outdoor farm is mentioned as a relevant information.

For Trichinella free holdings

All breeding pigs are tested.

For categories of holdings officially recognised Trichinella-free

not relevant

For regions with negligible Trichinella risk

not relevant

Frequency of the sampling

General

Systematic (outdoor pigs and breeding pigs). All pork from outdoor farms are tested.

For Trichinella free holdings

All breeding pigs are tested

For categories of holdings officially recognised Trichinella-free

Not relevant

For regions with negligible Trichinella risk

Not relevant

Type of specimen taken

General

Muscle (diaphragm) (in accordance with regulation 2075/2005)

For Trichinella free holdings

Not relevant

For categories of holdings officially recognised Trichinella-free

–

France - 2010 Report on trends and sources of zoonoses

For regions with negligible Trichinella risk

–

Methods of sampling (description of sampling techniques)

General

Manual technique with scalpels and tongs/pliers.

For Trichinella free holdings

Manual technique with scalpels and tongs.

For categories of holdings officially recognised Trichinella-free

–

For regions with negligible Trichinella risk

–

Case definition

General

A sample is considered positive when at least one larvae of Trichinella have been identified and confirmed as positive by AFSSA (National Reference laboratory for foodborne parasites, French food safety agency)

For Trichinella free holdings

Not relevant

For categories of holdings officially recognised Trichinella-free

Not relevant

For regions with negligible Trichinella risk

Not relevant

Diagnostic/analytical methods used

General

EU Reference method of detection according to Commission Regulation (2075/2005): Magnetic stirrer method for pooled sample digestion.

For Trichinella free holdings

–

For categories of holdings officially recognised Trichinella-free

–

For regions with negligible Trichinella risk

–

Preventive measures in place

Carcasses are consigned until analysis results are obtained.

Control program/mechanisms

The control program/strategies in place

Each routine laboratory participates to a national ring trial (two sessions per year) organised by the National Reference Laboratory for Food borne parasites (NRL Parasites). Analysts also participate to a two-days theoretical and practical training also organised by the NRL for Parasites.

Routine laboratories receive an agreement for Trichinella diagnosis by the Ministry of Food and Agriculture (General directorate for food) every year.

A surveillance control program is in force regarding wild game :

- all wild boars which are admitted in game-handling establishments are tested
- all wild boars which are directly supplied to a local retail establishments directly supplying the final consumer
- all farmed wild boars are tested
- a national surveillance plan for wild boars is currently developed

- Instruction for wild boar meat and outdoor pigs farm has been settled. (see "recent actions taken")

Summary results of the inspections of Trichinella-free holdings including information on farmer compliance

The trichinella free holdings inspection have not started yet.

Recent actions taken to control the zoonoses

A quality assurance system has been developed since 1999 including analysts training and since 2003 organisation of national ring trials.

- The control, inspection and analysis of wild boar is compulsory for collective meal (association, hunters..) and marketing. This regulation is included in post mortem inspection of game as recommended in food law Reg.853-2004. Awareness campaign and training of meat inspection is made with hunters on this specific issue.
- Survey in wild fauna in five pilots departements (foxes and wild boar) near pig farms. The objective is to have an idea of parasites circulation near pig holding in accordance with reg.2075/2005. This survey is conducted from 2009 to 2010 (hunting season) in five pilots departements namely Aveyron, Finistère, Ille et Vilaine, Nord, Pyrénées Atlantique. These departements have been chosen according their pork production (free range in particular). Results are available in the prevalence specific table.

Suggestions to the Community for the actions to be taken

- a solution should be found for live pigs circulating between member states before slaughtering, in order to know whether these animals have to be tested or not at the slaughterhouse of destination.
- the freezing treatment of the carcasses is defined in regulation 2075/2005 as an alternative to compulsory analysis, BUT this process is not able to destroy all the trichinella species in a contaminated meat.
- Survey in wild fauna to evaluate potential risk for porks and establish a critic limit criteria for prevalence in wild fauna

Validation of reference serological method for free zone or negligible risk zone.

Measures in case of the positive findings or single cases

When a positive result is found in a pooled sample analysis, individual digestions are performed to identify the positive animal.

Epidemiological studies are also carried on in the breeding and area where the positive animal is originated. These epidemiological studies concern other animals within the breeding and wildlife.

The contingency plan in place

The carcass is quarantined and destroyed. The holding of origin is put under sanitary surveillance. Epidemiologic investigation is conducted.

Notification system in place

-

Results of the investigation including description of the positive cases and the verification of the *Trichinella* species

Pigs raised in free-range system were found positive for *Trichinella britovi* in 2004 in Corsica. Epidemiological investigations were performed and a fox was detected as positive for *T. britovi* in the same area. In 2007, *T. spiralis* was found in an indoor pig farm of département "Finistère" (Brittany). In 2008, *T. britovi* was found in outdoor-pigs farm in département Alpes-Maritimes. More recently, in february 2010, a pool of 3 outdoors pigs was detected positive for *T. britovi* in Corsica at 5 kms from the first foci (2004). An epidemiological investigations based on serology will be performed on dogs from the area concerned.

Fattening pigs raised under controlled housing conditions in integrated production system

-

Fattening pigs not raised under controlled housing conditions in integrated production system

-

Breeding sows and boars

-

National evaluation of the recent situation, the trends and sources of infection

No positive pigs has been identified in 2009

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

No human infections due to pork meat controlled in french routine laboratory

Additional information

Development of a quality control system has been set up in France since 1998. At first, theoretical and practical trainings for analysts were organised by the French National Reference Laboratory. Then (in 2003) ring trials were initiated with two sessions per year for each routine diagnostic laboratory. The sensitivity of larvae detection increased significantly for all routine laboratories (a total of 72 labs in France) and reach to date an average of 80% of larvae detection.

For reference about meat inspection, consult instruction DGAL/SDSSA/N2009-8267 (internet).

See for details: Use of proficiency samples to assess diagnostic laboratories in France performing a *Trichinella* digestion assay. Vallée I, Macé P, Forbes L, Scandrett B, Durand B, Gajadhar A and Boireau P. Journal of Food Protection, vol 70 (7) 2007, 1685-1690

Table *Trichinella* in animals

	Source of information	Sampling unit	Units tested	Total units positive for <i>Trichinella</i>	<i>T. spiralis</i>	<i>Trichinella</i> spp., unspecified	<i>T. britovi</i>
Foxes - from hunting - Surveillance - official controls - suspect sampling	NRL	Animal	2	2			2
Foxes - from hunting - Survey - national survey ¹⁾	ONCFS	Animal	920	1			1
Pigs - breeding animals - unspecified - sows and boars - at slaughterhouse - animal sample - Monitoring - official sampling ²⁾	CCA	Animal	269945	0			
Pigs - fattening pigs - not raised under controlled housing conditions - at slaughterhouse - animal sample - Monitoring - official sampling ³⁾	CCA	Animal	299786	1			1
Pigs - fattening pigs - raised under controlled housing conditions - at slaughterhouse - animal sample - Monitoring - official sampling ⁴⁾	CCA	Animal	100801	0			
Solipeds, domestic - horses - at slaughterhouse - animal sample - Monitoring - official sampling	CCA	Animal	10405	0			
Wild boars - farmed - from hunting	CCA	Animal	3899	0			
Wild boars - wild - from hunting	CCA	Animal	33552	0			

Comments:

- ¹⁾ For details of this national survey see footnote. It consists of 1250 foxes trapped between august 2009 and august 2010. The results between august 2009 and december 2010 have been reported in 2009 (330 units tested, 0 positive).
- ²⁾ In France, all the breeding animals are tested
- ³⁾ ALL the animals raised in free range farming conditions are tested

Table Trichinella in animals

Comments:

4) Off-land farming : 1/1000 slaughtered animals are tested

Footnote:

A total of 2442 hunted boars and 1250 hunted or trapped foxes were analysed from August 2009 to August 2010 in a survey conducted by ONCFS for the account of CCA.

For foxes, the results for 2010 (january 2010- august 2010) are reported here.

For wild boars, the results have been reported in 2009 report as the survey has been conducted during the hunting season from august 2009 to february 2010.

The study took place in 5 French "departements" (counties) representative of the main french regions with pig production and including both indoor and outdoor pig production

In each one, the sample was stratified by sex, age and hunting ground (forests or game management units).

The protocol was then adjusted to the available wild boar and fox population present in each "departement".

Hunters and trappers sampled the diaphragm muscle or the tongue in wild boars and the diaphragm or the foreleg muscle in foxes. Analyses were made by artificial digestion with five grams of muscle from each boar and ten grams of muscle from each fox.

NRL for animal trichinelosis is ANSES-Ierpaz "Laboratoire National de Référence pour les parasites transmis par les aliments".

The number of units tested is the one of NRL. If there's a positive or uncertain case, the official local labs send it to NRL, but the number of units tested in each laboratory is not reported here. Same for horses

ONCFS is Office for Hunting and wild fauna.

<http://www.oncfs.gouv.fr/>

Results are also collected by national association of hunters.

2.9 ECHINOCOCCOSIS

2.9.1 General evaluation of the national situation

A. Echinococcus spp. general evaluation

History of the disease and/or infection in the country

The presence of the parasite was reported in the fox since 1970 in several French départements of the North-East of France: Meurthe-et-Moselle, Meuse, Bas-Rhin, Haut-Rhin, Vosges, Haute-Saone and Doubs. Since this date, the presence of the parasite was reported in several départements. In 1988, the distribution of the parasite in the final host covered a great north-eastern quarter of France as well as the Massif Central area.

National evaluation of the recent situation, the trends and sources of infection

Recent results suggest that the parasite spreads on the French territory. In France as in Europe, the reasons of this new distribution of the parasite are not clearly elucidated. It can be due to a more active research of the parasite or a real extension of the parasite.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

For ten years, the population of red foxes has been constantly increasing in France as in Europe. The progression of foxes in urban zones is currently observed. Foxes live now in contact with population and their presence was reported in different cities.

Recent actions taken to control the zoonoses

The infection rate in foxes is currently assessed in 39 French départements and specific studies are carried out on urban foxes. Moreover, domestic dogs and cats were checked for parasite in 2004 in département of Doubs and on dog only in 2008 in département of Meuse. In 2010 a specific study (results reported here) have been led in an endemic department.

An information leaflet presenting preventive measures in general population was devised by the public health authorities and disseminate in the decentralised services of the ministries in charge of health and agriculture.

Suggestions to the Community for the actions to be taken

-

Additional information

The control of infection by *granulosus* at the slaughterhouse level has been done to actualize the Data, in south of France and in Corsica.

Interesting information about the study on the foxes can be obtained on the website of "Entente Rage zoonose" at

<http://www.ententeragezoonoses.com>

2.9.2 Echinococcosis in humans

A. Echinococcus spp. in humans

Reporting system in place for the human cases

-

Case definition

-

Diagnostic/analytical methods used

-

Notification system in place

-

History of the disease and/or infection in the country

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

A summary of the humans cases until 2005, and details about the net of surveillance are available at http://www.invs.sante.fr/beh/2006/27_28/beh_27_28_2006.pdf

2.9.3 Echinococcus in animals

Table Echinococcus in animals

	Source of information	Sampling unit	Region	Units tested	Total units positive for Echinococcus	E. granulosus	E. multilocularis	Echinococcus spp., unspecified
Cattle (bovine animals) - at slaughterhouse - animal sample - Surveillance - official controls - suspect sampling ¹⁾	NRL	Animal	Haute-Saône	3	3	3		
Cattle (bovine animals) - at slaughterhouse - animal sample - Surveillance - official controls - suspect sampling ²⁾	NRL	Animal	Hérault	1	1	1		
Dogs - pet animals - Survey (vet clinic) ³⁾	NRL	Animal	Haute-Saône	378	0			
Foxes - wild - from hunting - Survey	NRL/ERZ	Animal	Meurthe-et-Moselle	216	53		53	
Foxes - wild - from hunting - Survey	NRL/ERZ	Animal	Loiret	14	0			
Foxes - wild - from hunting - Survey	NRL/ERZ	Animal	Haute-Saône	13	5		5	
Foxes - wild - from hunting - Survey	NRL/ERZ	Animal	Cher	17	0			
Foxes - wild - from hunting - Survey	NRL/ERZ	Animal	Rhône	25	0			
Foxes - wild - from hunting - Survey	NRL/ERZ	Animal	Côte-d'Or	37	10		10	
Foxes - wild - from hunting - Survey	NRL/ERZ	Animal	Yonne	32	1		1	
Pigs - at slaughterhouse - animal sample - Surveillance - official controls - suspect sampling ⁴⁾	NRL	Animal	Haute-Corse	224	148	148		
Pigs - at slaughterhouse - animal sample - Surveillance - official controls - suspect sampling ⁵⁾	NRL	Animal	Corse-du-Sud	38	32	32		

Table Echinococcus in animals

	Source of information	Sampling unit	Region	Units tested	Total units positive for Echinococcus	E. granulosus	E. multilocularis	Echinococcus spp., unspecified
Sheep - at slaughterhouse - animal sample - Surveillance - official controls - suspect sampling ⁶⁾	NRL	Animal	Alpes-de-Haute-Provence	27	27	27		

Comments:

- 1) Total number of slaughtered animals 23800. 1 G1 and 2 G3
- 2) Total number of slaughtered animals 4016. Genotype:G1
- 3) Analyses done on dogs faeces on a voluntary basis, in the most prevalent district for Echinococcus(foxes and humans)
- 4) G 6/7
- 5) G 6/7
- 6) Total number of slaughtered animals 460 000. Among the 27 suspects organs, 10 G1, 9 G2, 5 G3, 2 G1G2, 1 G1G3.

Footnote:

For the survey in slaughter houses, only suspect livers or lungs (cysts) have been tested on slaughtered animals after inspection . Ten slaughterhouses located in the South of France were included in the survey. The negative slaughterhouses (no cyst detected during year 2010) are not reported here.

SO these figures should not be interpreted as regional prevalence that should be calculated on the total of slaughtered and inspected animals (more than 10000 according the slaughterhouse) with no cyst.

The genotype (G) identified were sometimes mixed. (G6/G7 , G1/G2, G1/G3)

ERZ stands for "Entente Rage zoonose":

The result on foxes can't be interpreted as national prevalence. The survey has been done only a selection of french départements mainly on the great East of France. All the details (map) are available at <http://www.ententeragezoonoses.com/blog/>

Laboratory for echinococcus:

Nancy Rage

Laboratoire d'études et de recherches sur la rage et la pathologie des animaux sauvages

Table Echinococcus in animals

Technopôle agricole et vétérinaire

BP 40009

54220 MALZÉVILLE

Tél. : 03 83 29 89 50

The following amendments were made:

Date of Modification	Row name	Column name	Old value	New value
2012-02-26		Footnote	<p>For the survey in slaughter houses, only suspect livers or lungs (cysts) have been tested. Ten slaughters houses located in the South of France were included in the survey. The negative slaughterhouses (no cyst detected during year 2010) are not reported here.</p> <p>The genotype (G) identified were sometimes mixed. (G6/G7 , G1/G2, G1/G3)</p> <p>ERZ stands for "Entente Rage zoonose":</p> <p>The result on foxes can't be interpreted as national prevalence. The survey has been done only a selection of french départements mainly on the great East of France. All the details (map) are available at http://www.ententeragezoonoses.com/blog/</p> <p>Laboratory for echinococcus: Nancy Rage Laboratoire d'études et de recherches sur la rage et la pathologie des animaux sauvages</p> <p>Technopôle agricole et vétérinaire BP 40009 54220 MALZÉVILLE Tél. : 03 83 29 89 50</p>	<p>For the survey in slaughter houses, only suspect livers or lungs (cysts) have been tested on slaughterd animals after inspection . Ten slaughters houses located in the South of France were included in the survey. The negative slaughterhouses (no cyst detected during year 2010) are not reported here.</p> <p>SO these figures should not be interpreted as regional prevalence that should be calculated on the total of slaughterd and inspected animals (more than 10000 according the slaughterhouse) with no cyst.</p> <p>The genotype (G) identified were sometimes mixed. (G6/G7 , G1/G2, G1/G3)</p> <p>ERZ stands for "Entente Rage zoonose":</p> <p>The result on foxes can't be interpreted as national prevalence. The survey has been done only a selection of french départements mainly on the great East of France. All the details (map) are available at http://www.ententeragezoonoses.com/blog/</p> <p>Laboratory for echinococcus: Nancy Rage Laboratoire d'études et de recherches sur la rage et la pathologie des animaux sauvages</p> <p>Technopôle agricole et vétérinaire BP 40009 54220 MALZÉVILLE Tél. : 03 83 29 89 50</p>

2.10 TOXOPLASMOSIS

2.10.1 General evaluation of the national situation

A. Toxoplasmosis general evaluation

History of the disease and/or infection in the country

See invs datas on website ("add. information")

National evaluation of the recent situation, the trends and sources of infection

The organisation of monitoring plan is done in close cooperation with DGCCRF (directorate for competition policy consumer affairs and fraud control, ministry of economy), DGS (Directorate for health, ministry of health) AFSSA and InVS (institute of sanitary surveillance).

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

<http://www.afssa.fr/Documents/MIC-Ra-Toxoplasnose.pdf>

Recent actions taken to control the zoonoses

2 official monitoring plans: contamination by *Toxoplasma gondii* (in accordance with directive 2003/99/EC) :

- sheep meat(2007)
- bovine meat (2009)

Awareness campaign on sensitive population (especially pregnant women)

Suggestions to the Community for the actions to be taken

Surveillance of imported horse meat from Canada, Argentina, Brasil, Mexico, Uruguay, Australia

Additional information

http://www.femmeetenfant.net/pages/fichiers/congres/JourneePerinat07/14h_1CNRTOXOpr%E9sentation.pdf

CNR toxoplasnose:

<http://www.chu-reims.fr/professionnels/cnr-toxoplasnose-1/>

http://www.invs.sante.fr/beh/2008/14_15/index.htm

<http://www.invs.sante.fr/publications/2007/toxoplasnose/toxoplasnose.pdf>

Specific study:

<http://www.afssa.fr/Documents/MIC-Fi-Toxoplasma.pdf>

2.10.2 Toxoplasmosis in humans

A. Toxoplasmosis in humans

Reporting system in place for the human cases

-

Case definition

-

Diagnostic/analytical methods used

-

Notification system in place

--

History of the disease and/or infection in the country

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

http://www.femmeetenfant.net/pages/fichiers/congres/JourneePerinat07/14h_1CNRTOXOpr%E9sentation.pdf

<http://www.chu-reims.fr/professionnels/cnr-toxoplasrose-1/>

2.11 RABIES

2.11.1 General evaluation of the national situation

A. Rabies general evaluation

History of the disease and/or infection in the country

In contrast to the type that prevailed at the start of the last century, which was maintained in dogs, the type of rabies that has occurred in France during the second part of the twentieth century has been maintained essentially in red foxes. The vulpine rabies reappeared in France in 1968 spreading from an outbreak, which is thought to have started in 1939-1940 at the Polish/Russian border and advanced westwards.

From 1968 to 1989, the front of the vulpine rabies included the north-eastern quarter of France (approximately 1000 to 2500 cases were annually diagnosed during this period, including domestic animals and foxes). During this period, no case of indigenous human rabies were reported (the last case was reported in 1924). The success of the programmes of oral vaccination of the foxes against rabies, performed with the collaboration of the veterinary services, of Afssa Nancy, resulted in the eradication of the rabies in red foxes. On April 30, 2001, France was recognised officially free of rabies according to the criteria of OIE (which excludes the European Bat Lyssavirus).

National evaluation of the recent situation, the trends and sources of infection

Taking account of the importance of exotic tourism, North-South and East-West exchanges, and the growing passion for the pets, the entry of the canine rabies is particularly to fear at the time of the holidays. It relates to the illegally imported infected dogs.

In 1989, it was recognised that France bats may carry a rabies-like virus, European Bat Lyssavirus 1 (EBL1). Since 1999 except dogs imported clandestinely, only bats have been diagnosed rabid in France (1998 one cat, one fox). However, cases of rabies with EBLV-1 identification were recorded in two cats (one in 2003 in Vannes, Morbihan département, the other one in 2007 in Vendée département. The emergence of the disease in bats, whereas it disappeared in the foxes, could pose new problems of public health.

For the travellers, the rabies can be contracted abroad in a country where canine rabies is maintained. According to the data of National Reference Centre (Pasteur Institute, Paris), 20 imported human cases of rabies occurred in France between 1970 and 2003. The last imported case was reported in October 2003 in a 3 year old child going back from Gabon.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

The risk of exposure for humans is very low. Since EBL is found in the French bat population, people being in contact with bats should be aware of the risk. Concerning the risk of introduction of canine rabies from abroad, travellers should be dissuaded from bringing back animals from endemic areas into France and the EU. Large prevention campaigns are performed by the Ministry of Agriculture in summer to inform the travellers of the risk of entry of the urban dog-mediated rabies in France and in EU.

Recent actions taken to control the zoonoses

The risk of transmission of the bat rabies to the man is regarded as very low. The bats are protected in France. It is thus recommended not to approach them, and capture, transport, sale, purchase or destruction of bats are prohibited. Information campaigns on the bat rabies were carried out in the schools, urgency medical centres, antirabies treatment centres, the decentralised services of the youth and sports Ministry. These campaigns aim to make public (in particular young people) more aware of the danger in touching a bat or handling a sick, injured or died animal. It was in addition recommended to perform preventive rabies vaccination and a specific serological follow-up of the bat handlers (approximately 300 in France).

A large prevention campaign on the topic "Do not bring back the rabies among your memories of holidays !" was performed in 2004 and 2005 by the Ministry of Agriculture to inform the travellers of the risk of entry of the urban dog-mediated rabies in France and in UE. Posters and leaflets were widely disseminated in the veterinary clinics, in the local vet services, at the border posts, in the railway stations and the airports. Travellers are dissuaded from bringing back animals with them (or at least, if they must, then sternly urged to conform to the health regulations imposed) and encouraged to avoid a contact with any domestic carnivores, particularly strays.

Preventive rabies vaccination is recommended for travellers who stay in the high-risk countries (in Asia, Africa, the Middle East, South America).

Suggestions to the Community for the actions to be taken

The UE is actually free from canine rabies and whe should take all appropriate steps to keep it so. More information campaigns to travellers and to sea and air transport companies are needed. In accordance with CE 998/2003, stricter controls on the community borders (in particular at the borders with countries not free from dog-mediated rabies) should be implemented to fight against animal trafficking. UE could also support the efforts of the Maghreb countries in their fight against this serious enzootic.

Additional information

For humans cases consult invs and CNR pasteur websites

For animal topic:

2.11.2 Rabies in humans

A. Rabies in humans

Reporting system in place for the human cases

-

Case definition

-

Diagnostic/analytical methods used

-

Notification system in place

-

History of the disease and/or infection in the country

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance as zoonotic disease

-

Additional information

Useful information about rabies in human are available at:

<http://www.invs.sante.fr/surveillance/rage/default.htm>

<http://www.pasteur.fr/ip/easysite/go/03b-000030-06f/actualites-rapports>

2.11.3 Lyssavirus (rabies) in animals

A. Rabies in dogs

Monitoring system

Sampling strategy

-

Frequency of the sampling

-

Methods of sampling (description of sampling techniques)

-

Case definition

-

Vaccination policy

-

Other preventive measures than vaccination in place

-

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Notification system in place

-

Results of the investigation

-

Investigations of the human contacts with positive cases

-

National evaluation of the recent situation, the trends and sources of infection

Over 8,08 millions of dogs, 3 were positive in 2008, among those 2 were imported cases (Maroco and Gambia) and one got infected in contact with a dog in France, himself in contact with a dog infected in Maroco.

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a

source of infection)

-

Additional information

NRL website:

<http://www.afssa.fr/index.htm>

about Nancy Laboratory

Table Rabies in animals

	Source of information	Sampling unit	Region	Units tested	Total units positive for Lyssavirus (rabies)	Lyssavirus, unspecified	Classical rabies virus (genotype 1)	European Bat Lyssavirus - unspecified	European Bat Lyssavirus 1 (EBL 1)
Deer - wild - roe deer	NRL	Animal		1	0				
Badgers - wild - from hunting	NRL	Animal		1	0				
Bats - wild - Surveillance	NRL	Animal	Deux-Sèvres	1	1				1
Bats - wild - Surveillance	NRL	Animal	Charente-Maritime	7	2				2
Bats - wild - Surveillance	NRL	Animal		163	0				
Bats - wild - Surveillance	NRL	Animal	Doubs	1	1				1
Bats - wild - Surveillance	NRL	Animal	Ardennes	1	1				1
Bats - wild - Surveillance	NRL	Animal	Côtes-d'Armor	1	1				1
Cats - pet animals - Clinical investigations	NRL	Animal		536	0				
Cattle (bovine animals) - at farm - animal sample - organ/tissue - Surveillance - official controls - suspect sampling	NRL	Animal		7	0				
Chinchillas - pet animal - Clinical investigations	NRL	Animal		1	0				
Dogs - pet animals - Clinical investigations	NRL	Animal		773	0				
Ferrets - pet animals - Clinical investigations	NRL	Animal		21	0				
Foxes - wild - artic fox - at zoo - Clinical investigations	NRL	Animal		1	0				
Foxes - wild - from hunting - Surveillance - official controls	NRL	Animal		46	0				

Table Rabies in animals

	Source of information	Sampling unit	Region	Units tested	Total units positive for Lyssavirus (rabies)	Lyssavirus, unspecified	Classical rabies virus (genotype 1)	European Bat Lyssavirus - unspecified	European Bat Lyssavirus 1 (EBL 1)
Goats - at farm - animal sample - organ/tissue - Surveillance - official controls - suspect sampling	NRL	Animal		1	0				
Hedgehogs - wild - Surveillance - official controls	NRL	Animal		1	0				
Marten - wild - Surveillance - official controls	NRL	Animal		8	0				
Marten - wild - from hunting - Surveillance - official controls	NRL	Animal		3	0				
Minks - wild - Surveillance - official controls	NRL	Animal		1	0				
Moles - Surveillance - official controls	NRL	Animal		1	0				
Monkeys - zoo animal - at zoo - Clinical investigations	NRL	Animal		1	0				
Rabbits - farmed - Clinical investigations	NRL	Animal		1	0				
Rats - pet animal - Clinical investigations	NRL	Animal		6	0				
Sheep - at farm - animal sample - organ/tissue - Surveillance - official controls - suspect sampling	NRL	Animal		2	0				
Solipeds, domestic - horses - at farm - animal sample - organ/tissue - Surveillance - official controls - suspect sampling	NRL	Animal		6	0				
Squirrels - wild - Surveillance - official controls	NRL	Animal		3	0				

Footnote:

Samples: Brain,
National Reference Laboratory: ANSES Nancy

Table Rabies in animals

Passive surveillance by local vet services and hunters

* Animals (or their head) are transferred from competent veterinary services to the rabies National Reference Centre (NRC) or to the Rabies National Reference Laboratory (NRL) for analysis.

** bats are transferred from competent veterinary services or bat workers to the rabies NRL for analysis. Region is indicated only for positive cases.

2.12 STAPHYLOCOCCUS INFECTION

2.12.1 General evaluation of the national situation

2.13 Q-FEVER

2.13.1 General evaluation of the national situation

A. Coxiella burnetii (Q-fever) general evaluation

History of the disease and/or infection in the country

Since the end of 90's, all the operators involved in animal health (the animal health governmental authority / general directorate for food –CCA-, researchers, breeders, national association, vet, labs, pharmaceutical industries) rallied all together on Q fever, considering both the animal and public health issues related to this infection.

As a consequence, several studies were carried out to improve the knowledge about the epidemiology of the disease and its management.

In 2005, CCA entrusted ACERSA (Association for certification of animal health in farms) to elaborate a control program in herds clinically affected with Q fever. This collegiate control program was distributed in 2008 to vets and breeders under voluntary support.

This control scheme is based on 3 steps:

- identification of clinically infected herds,
- practical and technical methods for the diagnosis,
- actions to be undertaken in these risky herds (cf. specific EFSA's opinion in 2010).

The definition adopted by Acersa to consider a ruminant herd/flock as clinically affected by Q fever has been retained by EFSA as the basis of its report recently published on the development of harmonised schemes for the monitoring and reporting of Q fever in animals in the European Union.

Control measures considered in herds included vaccination (phase I) of renewal animals and implementation of disinfection measures which could avoid further bacterial spreading (collection and destruction of aborted foetus and placenta, hygienic precaution for obstetric operation, effluents management).

National evaluation of the recent situation, the trends and sources of infection

Human data: In France, human cases of Q-fever are not notifiable. Yet there is a Reference National Centre (CNR Rickettsia, Marseille) which receives samples for first diagnosis or confirmation of diagnosis. In this context, cases detected in the CNR represent only a part of the diagnosed cases in France. The incidence of this bacterial infection in public health is largely underestimated.

The Coxiella burnetii infection can affect a large number of animal species, domestic and wild, including mammals (ruminants, dogs, cats, rabbits, and small rodents), birds and arthropods. The bacteria are shed in milk, urine, faeces and birth products of ruminants. While Q fever is thought to be enzootic, the prevalence rates at animal or herd level are very variable according to several localized surveys. In France, Q fever in ruminants is not a notifiable disease.

However, there is now a National Reference Laboratory (French Food Safety Agency, Sophia-Antipolis)

which conducts some reference activities such as ring trials aiming at testing proficiency of county laboratories or comparing performances of methods (both on serological and molecular methods). Sampling of cattle, sheep or goats is often performed in case of clinical suspicion of Q fever after several abortions within a herd. So far, the data of these investigations are not systematically collected and their treatment is not centralized. For research studies, some flocks can be tested and followed.

In case of human Q-fever cases, an epidemiological investigation can be managed by the local vet services.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

Investigations have been conducted several times by CCA in livestock farms during human epidemics in close cooperation with the human health authority, InVS (Results of these investigations on invs website see part. additional information).

A major human Q fever episode had occurred during the summer of 2002 with 99 cases including 16 hospitalizations. Recently in 2007, during the spring, Q fever affected 12 persons with 4 hospitalizations. Both episodes occurred in suburban areas, and wind dispersion of contaminated aerosols was highly incriminated in transmission. No epidemiological survey demonstrated the link between human cases and dairy products consumption.

<http://www.afssa.fr/Documents/SANT-Ra-fievreQ.pdf>

Recent actions taken to control the zoonoses

Due to the general context regarding this infection and the persistent lack of knowledge in several areas, the general directorate for food (CCA), has recently put in place a working group of experts, professionals and epidemiologists.

The objectives of this working group:

Awareness campaign, information, training about Q fever diagnosis, management and control program in farms (for vets and farmers especially)

Standardization of the report of series of abortions, financial help to the differential diagnosis of repeated abortions for the three domestic ruminants species (cattle, goat and sheep) ;

Organisation and drawing up of a common disease control plan in close cooperation with health services at local and national level in case of human epidemics.

Continuation of researches and studies: evaluation of control program in clinically infected herds, evaluation of environmental contamination and of the bacterial shedding dynamics within herds/flocks in different epidemiologic contexts, standardization of diagnosis methods, improvement of the knowledge on circulating strains in humans and animals.

Actions in the field of surveillance are foreseen on a voluntary basis (with financial and technical incentive). Indeed, a regulation related to surveillance or control program do not seem relevant considering the current imperfect knowledge of the disease, the interpretation of diagnosis tools and the efficiency of management program.

A compulsory notification would be highly dissuasive to get informations without prejudice of supervision of the surveillance in the frame of standardized protocols.

Regarding milk and dairy products, as underlined in EFSA's opinion about Q fever, no scientific datas are available to prove that the consumption of such products would be responsible for human's disease.

The national regulation historically used to set up hygiene requirements for farms commercialising raw milk or dairy products manufactured with raw milk. In the french regulation about Q fever (6th of August 1985), raw milk must come from farm where no case of Q fever has been identified for at least one year. Following the "food law" EC regulations, the national regulation is in revision. In this framework, the draft project concerning raw milk has received a favourable opinion of AFSSA (29th of June 2009) and do not include specific clauses for Q fever.

Suggestions to the Community for the actions to be taken

Actions at the national level could be implemented at EC level supporting sharing and mutualisation of data and experiences.

Moreover it appears essential that EU coordinates the actions of MS in research field and encourage the sharing of knowledge.

Additional information

Any information about french network of surveillance can be obtained on invs website:

http://www.invs.sante.fr/publications/2005/snmi/pdf/fievre_q.pdf

Website of the CNR rickettsia:

http://ifr48.timone.univ-mrs.fr/portail2/index.php?option=com_content&task=view&id=12

3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE

3.1 ESCHERICHIA COLI, NON-PATHOGENIC

3.1.1 General evaluation of the national situation

A. Escherichia coli general evaluation

History of the disease and/or infection in the country

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Additional information

-

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

A. Antimicrobial resistance of *E.coli* in food

Sampling strategy used in monitoring

Frequency of the sampling

In continuation of the monitoring programme set up on the animals to the slaughterhouse, France has put in place for the third consecutive year the monitoring plan which concerns more specifically certain indicator bacteria (*Escherichia coli*) isolated from animal foodstuffs.

Type of specimen taken

Meat samples consist of meat cutting poultry (chicken and turkey) with or without skin, and product type escalope or "coast" for pigs, taken from cutting.

Methods of sampling (description of sampling techniques)

Each sample is made up of minimum 40 grams of meat chosen as much as possible randomly, collected with sterile gloves in a sterile bag numbered.

The samples are kept cold (or frozen) quickly transported to the laboratory in charge of isolation. 10 grams of meat sample are diluted and homogenized to 1/10th buffered peptone water and spread on selective media. After isolation, one characteristic strain is kept in microvial in agar conservation until the confirmation of the identification and antimicrobial susceptibility testing.

Procedures for the selection of isolates for antimicrobial testing

The total number of samples taken in food is set at 600 in chains "poultry" and "pigs", distributed equally between species chicken, turkey and pork in order to isolate approximately 400 strains of *Escherichia coli*, with a minimum of 100 strains per species if possible. So all strains isolated from the national monitoring plan are usually tested.

Methods used for collecting data

Sampling has been organized within 46 French departments in order to be representative of national production tonnage of animals slaughtered, specifically within 36 departments for poultry production, 22 departments for turkey production and 30 departments for pig production. The distribution of samples was determined by department in advance.

Samplings have been collected in cutting by official veterinary services on a full year. The departments that do not have cutting for the productions concerned have been collected samples of meat in one or more slaughterhouses in the department.

Laboratory methodology used for identification of the microbial isolates

Escherichia coli strains have been directly isolated on TBX agar plates or after preenrichment (1 strain per sample meat). Identification is then confirmed by PCR.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Antimicrobial susceptibility of indicator bacteria has been tested by MIC determination, according to standardized methods: broth microdilution susceptibility test by Sensititre method based on CLSI M7-A8

standard.

12 antibiotics are included in the Sensititre plate: Ampicillin, Cefotaxime, Ceftazidime, Chloramphenicol, Ciprofloxacin, Florfenicol, Gentamicin, Nalidixic acid, Streptomycin, Sulfamethoxazole (sulfonamide), Tetracycline, Trimethoprim.

Cut-off values used in testing

Results interpretations have been expressed according to EFSA recommendations, when breakpoints are common with those of the CASFM and EUCAST (when they exist), or according to CA-SFM. In the database of the EUCAST, we took into account the clinical breakpoint for resistance (when they exist) and not the epidemiological cut-off, unless they are common. Strains are resistant if MIC value:

- Ampicillin: >8 µg/ml,
- Cefotaxime: >2 µg/ml,
- Ceftazidime: >8 µg/ml,
- Chloramphenicol: >16 µg/ml,
- Ciprofloxacin: >1 µg/ml,
- Florfenicol: >16 µg/ml,
- Gentamicin: >4 µg/ml,
- Nalidixic acid: >16 µg/ml,
- Streptomycin: >16 µg/ml,
- Sulfamethoxazole (sulfonamide): >256 µg/ml,
- Tetracycline: >8 µg/ml,
- Trimethoprim: >4 µg/ml.

* MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration

** MIC values greater than the highest concentration in the range are presented as one dilution step above the range

Preventive measures in place

E. coli ATCC 25922 have been used as quality control.

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Notification system in place

For antimicrobial resistance issues

Monitoring of antibiotics sales

<http://www.anmv.afssa.fr/antibioreistance>

Thematic folders: Antibiotics resistance

<http://www.afssa.fr/index.htm>

Resapath net

<http://www.afssa.fr/Documents/LABO-Ra-Resapath2008.pdf>

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

The transmitted data are issued from samples collected in 2008. Data on antimicrobial susceptibility testing for 2009 samples will follow later on.

B. Antimicrobial resistance of E.coli in animal

Sampling strategy used in monitoring

Frequency of the sampling

A national monitoring plan is established each year from different animal productions in slaughterhouses to isolate the times indicator bacteria, E. coli and Enterococcus, and Campylobacter from the same samples.

Type of specimen taken

- For poultry production, 2 caecas from the same broiler per batch of broilers.
- For pig production, 1 fecal sample by pig representing a batch of animals from a single source, slaughtered in the same place to the same date.

Methods of sampling (description of sampling techniques)

- For poultry production, each sample consists of 2 caecas from the same broiler taken before the post of evisceration with sterile gloves in a sterile bag.
- For pig production, about 25 grams of faeces are collected in the rectum of a pig with sterile gloves in a sterile bag.

Each sample is identified with the code of the slaughterhouse and the number of the animal with a self-adhesive label affixed to the sterile plastic bag containing the sample.

The samples are kept cold quickly transported to the laboratory in charge of isolation. Upon receipt, samples are diluted to 1/10th peptone glycerol water at 25% and then spread on selective media.

After isolation, one characteristic strain is kept in peptone glycerol -70° C until antimicrobial susceptibility testing.

Procedures for the selection of isolates for antimicrobial testing

All strains isolated from the national monitoring plan are usually tested. But if too many strains are isolated, a random draw is conducted to obtain the desired number of strains.

Methods used for collecting data

Sampling has been organized within French departments in order to be representative of national productions. Samplings are of a permanent monitoring scheme and have been collected by official veterinary services from March to June and from September to December.

- For poultry production, caecal samples from Standard, Label, and Export type productions have been collected from 9 slaughterhouses in 4 regions producing broilers.
- For pig production, fecal samples of pigs have been collected from 10 slaughterhouses in 7 regions producing pigs.

Laboratory methodology used for identification of the microbial isolates

E. coli strains have been directly isolated on MacConkey agar plates. Strains identification was based on standard criteria : glucose, lactose, H₂S, gaz, urease, indole, beta-galactosidase, citrate.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Antimicrobial susceptibility of indicator bacteria has been tested by MIC determination, according to standardized methods: broth microdilution susceptibility test by Sensititre method based on CLSI M7-A8 standard.

Twelve antibiotics (and their corresponding family of antibiotics) are included in the Sensititre plate manufactured specifically for testing E. coli strains: Ampicillin (Penicillins), Cefotaxime (Cephalosporins), Ceftazidime (Cephalosporins), Chloramphenicol (Amphenicols), Ciprofloxacin (Fluoroquinolones), Florfenicol (Amphenicols), Gentamicin (Aminoglycosides), Nalidixic acid (Quinolones), Streptomycin

(Aminoglycosides), Sulfamethoxazole (sulfonamides), Tetracycline (Tetracyclines), Trimethoprim.

Cut-off values used in testing

Results interpretations have been expressed according to the EUCAST epidemiological cut-off values. Strains are resistant (in the epidemiological sense, no longer belonging to the wild population) if MIC value:

- Ampicillin: >8 µg/ml,
- Cefotaxime: >0.25 µg/ml,
- Ceftazidime: >0.5 µg/ml,
- Chloramphenicol: >16 µg/ml,
- Ciprofloxacin: >0.03 µg/ml,
- Florfenicol: >16 µg/ml,
- Gentamicin: >2 µg/ml,
- Nalidixic acid: >16 µg/ml,
- Streptomycin: >16 µg/ml,
- Sulfamethoxazole (sulfonamide): >256 µg/ml,
- Tetracycline: >8 µg/ml,
- Trimethoprim: >2 µg/ml.

* MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration

** MIC values greater than the highest concentration in the range are presented as one dilution step above the range

Preventive measures in place

E. coli ATCC 25922 have been used as quality control.

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

The transmitted data are issued from samples collected in 2009. Data on antimicrobial susceptibility testing for 2010 samples will follow later on.

For antimicrobial resistance issue:

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

<http://www.anses.fr/Documents/SANT-Ra-FARM2008.pdf>

Monitoring of antibiotics sales

<http://www.anmv.afssa.fr/antibioresistance>

Thematic folders: Antibiotics resistance

<http://www.afssa.fr/index.htm>

Resapath net

<http://www.afssa.fr/Documents/LABO-Ra-Resapath2008.pdf>

[http://www.resapath.anses.fr/SITE_RESAPATH_WEB/uploadfiles/files/Documents/2009%20RESAPATH%20Rapport%20Annuel%20Fr%20\[id_doc=157\].pdf](http://www.resapath.anses.fr/SITE_RESAPATH_WEB/uploadfiles/files/Documents/2009%20RESAPATH%20Rapport%20Annuel%20Fr%20[id_doc=157].pdf)

Table Antimicrobial susceptibility testing of E. coli in Pigs

Escherichia coli, non-pathogenic	E.coli, non-pathogenic, unspecified	
	yes	
Isolates out of a monitoring program (yes/no)	158	
Number of isolates available in the laboratory	N	n
Antimicrobials:		
Amphenicols - Chloramphenicol	158	22
Amphenicols - Florfenicol	158	3
Fluoroquinolones - Ciprofloxacin	158	4
Quinolones - Nalidixic acid	158	3
Trimethoprim	158	59
Sulphonamides - Sulfonamide	158	91
Aminoglycosides - Streptomycin	158	88
Aminoglycosides - Gentamicin	158	4
Penicillins - Ampicillin	158	34
Fully sensitive	158	19
Resistant to 1 antimicrobial	158	31
Resistant to 2 antimicrobials	158	32
Resistant to 3 antimicrobials	158	24
Resistant to 4 antimicrobials	158	22
Resistant to >4 antimicrobials	158	30
Cephalosporins - Cefotaxim	158	4
Cephalosporins - Ceftazidim	158	1
Tetracyclines	158	118

Table Antimicrobial susceptibility testing of E. coli in Pigs

Footnote:

data from strains collected in 2009

Table Antimicrobial susceptibility testing of *E. coli* in *Gallus gallus* (fowl)

Escherichia coli, non-pathogenic Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	E.coli, non-pathogenic, unspecified	
	yes	
	201	
Antimicrobials:	N	n
Amphenicols - Chloramphenicol	201	10
Amphenicols - Florfenicol	201	1
Fluoroquinolones - Ciprofloxacin	201	54
Quinolones - Nalidixic acid	201	50
Trimethoprim	201	60
Sulphonamides - Sulfonamide	201	103
Aminoglycosides - Streptomycin	201	65
Aminoglycosides - Gentamicin	201	4
Penicillins - Ampicillin	201	99
Tetracyclines - Tetracycline	201	151
Fully sensitive	201	31
Resistant to 1 antimicrobial	201	38
Resistant to 2 antimicrobials	201	29
Resistant to 3 antimicrobials	201	24
Resistant to 4 antimicrobials	201	25
Resistant to >4 antimicrobials	201	54
Cephalosporins - Cefotaxim	201	7
Cephalosporins - Ceftazidim	201	5

Table Antimicrobial susceptibility testing of E. coli in Gallus gallus (fowl)

Footnote:
data from strains collected in 2009

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Gallus gallus (fowl) (strains isolated from samples collected in 2009) - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

E.coli, non-pathogenic, unspecified Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) (strains isolated from samples collected in 2009)																										
	yes																										
	201																										
Antimicrobials:	Cut-off value	N	n	<=0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest		
Amphenicols - Chloramphenicol	16	201	10									5	39	133	14	2	0	1	3	4					2	256	
Amphenicols - Florfenicol	16	201	1									9	99	77	15	1	0								2	32	
Tetracyclines - Tetracycline	8	201	151								17	28	5	0	3	15	69	62	2						1	128	
Fluoroquinolones - Ciprofloxacin	0.03	201	54	1	74	72	4	6	20	16	3	1	0	4											0.008	4	
Quinolones - Nalidixic acid	16	201	50								17	114	19	0	1	4	8	20	18						1	128	
Trimethoprim	2	201	60					2	40	73	23	3	1	0	0	59									0.12	16	
Aminoglycosides - Streptomycin	16	201	65									0	10	96	30	10	12	9	15	19						2	256
Aminoglycosides - Gentamicin	2	201	4					0	2	95	95	5	1	1	1	1									0.12	16	
Penicillins - Ampicillin	8	201	99								8	57	35	2	1	1	0	2	95						1	128	
Cephalosporins - Cefotaxim	0.25	201	7		4	51	112	24	3	0	0	0	7												0.015	2	
Sulphonamides	256	201	103											4	18	40	24	10	2	0	2	101			8	1024	
Cephalosporins - Ceftazidim	0.5	201	5				35	103	49	9	3	0	1	0	1										0.06	8	

Footnote:

data from strains isolated in 2009

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Pigs (data from strains collected in 2009) - quantitative data
 [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

E.coli, non-pathogenic, unspecified	Pigs (data from strains collected in 2009)																									
	yes																									
	158																									
Antimicrobials:	Cut-off value	N	n	<=0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest	
Amphenicols - Chloramphenicol	16	158	22									0	25	104	7	5	14	2	1	0					2	256
Amphenicols - Florfenicol	16	158	3									4	58	71	22	1	2								2	32
Tetracyclines - Tetracycline	8	158	118								16	17	6	1	1	7	53	54	3						1	128
Fluoroquinolones - Ciprofloxacin	0.03	158	4	1	75	78	1	0	1	1	0	0	1	0											0.008	4
Quinolones - Nalidixic acid	16	158	3								13	124	18	0	0	0	1	1	1						1	128
Trimethoprim	2	158	59					4	40	44	10	1	0	0	1	58									0.12	16
Aminoglycosides - Streptomycin	16	158	88									0	2	51	17	11	20	29	16	12					2	256
Aminoglycosides - Gentamicin	2	158	4					0	0	46	96	12	1	1	1	1									0.12	16
Penicillins - Ampicillin	8	158	34								13	66	40	5	0	0	0	1	33						1	128
Cephalosporins - Cefotaxim	0.25	158	4		0	49	93	12	0	1	0	0	3												0.015	2
Sulphonamides	256	158	91											10	14	15	16	9	3	3	5	83			8	1024
Cephalosporins - Ceftazidim	0.5	158	1				19	92	42	4	0	0	0	1	0										0.06	8

Footnote:

data from strains collected in 2009

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Animals

Test Method Used	Standard methods used for testing
Broth dilution	NCCLS/CLSI

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Amphenicols	Chloramphenicol	EUCAST	16	
	Florfenicol	EUCAST	16	
Tetracyclines	Tetracycline	EUCAST	8	
Fluoroquinolones	Ciprofloxacin	EUCAST	0.03	
Quinolones	Nalidixic acid	EUCAST	16	
Trimethoprim	Trimethoprim	EURL	2	
Sulphonamides	Sulphonamides	EUCAST	256	
Aminoglycosides	Streptomycin	EUCAST	16	
	Gentamicin	EUCAST	2	
Cephalosporins	Cefotaxim	EUCAST	0.25	
	Ceftazidim	EUCAST	0.5	
Penicillins	Ampicillin	EUCAST	8	

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Animals

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Feed

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Amphenicols	Chloramphenicol		16	
Tetracyclines	Tetracycline		8	
Fluoroquinolones	Ciprofloxacin		0.03	
Quinolones	Nalidixic acid		16	
Trimethoprim	Trimethoprim		2	
Sulphonamides	Sulphonamides		256	
Aminoglycosides	Streptomycin		16	
	Gentamicin		2	
Cephalosporins	Cefotaxim		0.25	
Penicillins	Ampicillin		8	

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Food

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Amphenicols	Chloramphenicol		16	
Tetracyclines	Tetracycline		8	
Fluoroquinolones	Ciprofloxacin		0.03	
Quinolones	Nalidixic acid		16	
Trimethoprim	Trimethoprim		2	
Sulphonamides	Sulphonamides		256	
Aminoglycosides	Streptomycin		16	
	Gentamicin		2	
Cephalosporins	Cefotaxim		0.25	
Penicillins	Ampicillin		8	

3.2 ENTEROCOCCUS, NON-PATHOGENIC

3.2.1 General evaluation of the national situation

3.2.2 Antimicrobial resistance in Enterococcus, non-pathogenic isolates

A. Antimicrobial resistance of E. faecalis in Animals

Sampling strategy used in monitoring

Frequency of the sampling

A national monitoring plan is established each year from different animal productions in slaughterhouses to isolate the times indicator bacteria, E. coli and Enterococcus, and Campylobacter from the same samples.

Type of specimen taken

- For poultry production, 2 caecae from the same broiler per batch of broilers.
- For pig production, 1 fecal sample by pig representing a batch of animals from a single source, slaughtered in the same place to the same date.

Methods of sampling (description of sampling techniques)

- For poultry production, each sample consists of 2 caecae from the same broiler taken before the post of evisceration with sterile gloves in a sterile bag.
- For pig production, about 25 grams of faeces are collected in the rectum of a pig with sterile gloves in a sterile bag.

Each sample is identified with the code of the slaughterhouse and the number of the animal with a self-adhesive label affixed to the sterile plastic bag containing the sample.

The samples are kept cold quickly transported to the laboratory in charge of isolation. Upon receipt, samples are diluted to 1/10th peptone glycerol water at 25% and then spread on selective media.

After isolation, one characteristic strain is kept in peptone glycerol -70° C until antimicrobial susceptibility testing.

Procedures for the selection of isolates for antimicrobial testing

All strains isolated from the national monitoring plan are usually tested. But if too many strains are isolated, a random draw is conducted to obtain the desired number of strains.

Methods used for collecting data

Sampling has been organized within French departments in order to be representative of national productions. Samplings are of a permanent monitoring scheme and have been collected by official veterinary services from March to June and from September to December.

- For poultry production, caecal samples from Standard, Label, and Export type productions have been collected from 9 slaughterhouses in 4 regions producing broilers.
- For pig production, fecal samples of pigs have been collected from 10 slaughterhouses in 7 regions producing pigs.

Laboratory methodology used for identification of the microbial isolates

Enterococcus strains have been directly isolated on BEA (Bile-Esculin-Azide) agar plates and five typical

colonies are kept. Strains identification was performed by PCR for distinguishing *Enterococcus faecalis* and *Enterococcus faecium*.

Enterococcus faecalis was isolated with a low prevalence compared to *Enterococcus faecium*, especially from pig samples.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Antimicrobial susceptibility of indicator bacteria has been tested by MIC determination, according to standardized methods: broth microdilution susceptibility test by Sensititre method based on CLSI M7-A8 standard.

One type of plate, manufactured specifically for testing both strains of *Enterococcus faecium* and *faecalis*, has been used including the 12 following antibiotics (and their corresponding family of antibiotics): Ampicillin (Penicillins), Chloramphenicol (Amphenicols), Ciprofloxacin (Fluoroquinolones), Daptomycin (Glycopeptides), Erythromycin (Macrolides), Gentamicin (Aminoglycosides), Linezolid (Oxazolidines), Quinupristin/Dalfopristin (Streptogramins), Streptomycin (Aminoglycosides), Tetracycline (Tetracyclines), Tigecyclin (Glycylcyclines), Vancomycin (Glycopeptides).

Cut-off values used in testing

Results interpretations have been expressed according to the EUCAST epidemiological cut-off values. Strains are resistant (in the epidemiological sense, no longer belonging to the wild population) if MIC value:

- Ampicillin: >4 µg/ml,
- Chloramphenicol: >32 µg/ml,
- Ciprofloxacin: >4 µg/ml,
- Daptomycin: >4 µg/ml,
- Erythromycin: >4 µg/ml,
- Gentamicin: >32 µg/ml,
- Linezolid: >4 µg/ml,
- Quinupristin/Dalfopristin: >32 µg/ml,
- Streptomycin: >512 µg/ml,
- Tetracycline: >2 µg/ml,
- Tigecyclin: >0.25 µg/ml,
- Vancomycin: >4 µg/ml.

* MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration.

** MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Preventive measures in place

Enterococcus faecalis ATCC 29212 have been used as quality control.

National evaluation of the recent situation, the trends and sources of infection

<http://www.invs.sante.fr/surveillance/erg/default.htm>

Additional information

The transmitted data are issued from samples collected in 2009. Data on antimicrobial susceptibility testing for 2010 samples will follow later on.

France - 2010 Report on trends and sources of zoonoses

For antimicrobial resistance issue:

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

<http://www.anses.fr/Documents/SANT-Ra-FARM2008.pdf>

Monitoring of antibiotics sales

<http://www.anmv.afssa.fr/antibioresistance>

Thematic folders: Antibiotics resistance

<http://www.afssa.fr/index.htm>

Resapath net

<http://www.afssa.fr/Documents/LABO-Ra-Resapath2008.pdf>

[http://www.resapath.anses.fr/SITE_RESAPATH_WEB/uploadfiles/files/Documents/2009%20RESAPATH%20Rapport%20Annuel%20Fr%20\[id_doc=157\].pdf](http://www.resapath.anses.fr/SITE_RESAPATH_WEB/uploadfiles/files/Documents/2009%20RESAPATH%20Rapport%20Annuel%20Fr%20[id_doc=157].pdf)

B. Antimicrobial resistance of E. faecium in animal

Sampling strategy used in monitoring

Frequency of the sampling

A national monitoring plan is established each year from different animal productions in slaughterhouses to isolate the times indicator bacteria, E. coli and Enterococcus, and Campylobacter from the same samples.

Type of specimen taken

- For poultry production, 2 caecae from the same broiler per batch of broilers.
- For pig production, 1 fecal sample by pig representing a batch of animals from a single source, slaughtered in the same place to the same date.

Methods of sampling (description of sampling techniques)

- For poultry production, each sample consists of 2 caecae from the same broiler taken before the post of evisceration with sterile gloves in a sterile bag.
- For pig production, about 25 grams of faeces are collected in the rectum of a pig with sterile gloves in a sterile bag.

Each sample is identified with the code of the slaughterhouse and the number of the animal with a self-adhesive label affixed to the sterile plastic bag containing the sample.

The samples are kept cold quickly transported to the laboratory in charge of isolation. Upon receipt, samples are diluted to 1/10th peptone glycerol water at 25% and then spread on selective media.

After isolation, one characteristic strain is kept in peptone glycerol -70° C until antimicrobial susceptibility testing.

Procedures for the selection of isolates for antimicrobial testing

All strains isolated from the national monitoring plan are usually tested. But if too many strains are isolated, a random draw is conducted to obtain the desired number of strains.

Methods used for collecting data

-Sampling has been organized within French departments in order to be representative of national productions. Samplings are of a permanent monitoring scheme and have been collected by official veterinary services from March to June and from September to December.

- For poultry production, caecal samples from Standard, Label, and Export type productions have been collected from 9 slaughterhouses in 4 regions producing broilers.

- For pig production, fecal samples of pigs have been collected from 10 slaughterhouses in 7 regions producing pigs.

Laboratory methodology used for identification of the microbial isolates

Enterococcus strains have been directly isolated on BEA (Bile-Esculin-Azide) agar plates and five typical colonies are kept. Strains identification was performed by PCR for distinguishing Enterococcus faecalis and Enterococcus faecium.

Enterococcus faecalis was isolated with a low prevalence compared to Enterococcus faecium, especially from pig samples.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Antimicrobial susceptibility of indicator bacteria has been tested by MIC determination, according to standardized methods: broth microdilution susceptibility test by Sensititre method based on CLSI M7-A8

standard.

One type of plate, manufactured specifically for testing both strains of *Enterococcus faecium* and *faecalis*, has been used including the 12 following antibiotics (and their corresponding family of antibiotics): Ampicillin (Penicillins), Chloramphenicol (Amphenicols), Ciprofloxacin (Fluoroquinolones), Daptomycin (Glycopeptides), Erythromycin (Macrolides), Gentamicin (Aminoglycosides), Linezolid (Oxazolidines), Quinupristin/Dalfopristin (Streptogramins), Streptomycin (Aminoglycosides), Tetracycline (Tetracyclines), Tigecyclin (Glycylcyclines), Vancomycin (Glycopeptides).

Cut-off values used in testing

Results interpretations have been expressed according to the EUCAST epidemiological cut-off values. Strains are resistant (in the epidemiological sense, no longer belonging to the wild population) if MIC value:

- Ampicillin: >4 µg/ml,
- Chloramphenicol: >32 µg/ml,
- Ciprofloxacin: >4 µg/ml,
- Daptomycin: >4 µg/ml,
- Erythromycin: >4 µg/ml,
- Gentamicin: >32 µg/ml,
- Linezolid: >4 µg/ml,
- Quinupristin/Dalfopristin: >1 µg/ml,
- Streptomycin: >128 µg/ml,
- Tetracycline: >2 µg/ml,
- Tigecyclin: >0.25 µg/ml,
- Vancomycin: >4 µg/ml.

* MIC values equal to or lower than the lowest concentration tested are presented as the lowest concentration.

** MIC values greater than the highest concentration in the range are presented as one dilution step above the range.

Preventive measures in place

Enterococcus faecalis ATCC 29212 have been used as quality control.

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the zoonoses

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Notification system in place

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

<http://www.invs.sante.fr/surveillance/erg/default.htm>

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

-

Additional information

The transmitted data are issued from samples collected in 2009. Data on antimicrobial susceptibility testing for 2010 samples will follow later on.

For antimicrobial resistance issue:

Interesting information about AMR in animals

<http://www.afssa.fr/Documents/SANT-Ra-FARM2006.pdf>

<http://www.anses.fr/Documents/SANT-Ra-FARM2008.pdf>

Monitoring of antibiotics sales

<http://www.anmv.afssa.fr/antibioresistance>

Thematic folders: Antibiotics resistance

<http://www.afssa.fr/index.htm>

Resapath net

<http://www.afssa.fr/Documents/LABO-Ra-Resapath2008.pdf>

[http://www.resapath.anses.fr/SITE_RESAPATH_WEB/uploadfiles/files/Documents/2009%20RESAPATH%20Rapport%20Annuel%20Fr%20\[id_doc=157\].pdf](http://www.resapath.anses.fr/SITE_RESAPATH_WEB/uploadfiles/files/Documents/2009%20RESAPATH%20Rapport%20Annuel%20Fr%20[id_doc=157].pdf)

Table Antimicrobial susceptibility testing of Enterococcus, non-pathogenic in Gallus gallus (fowl)

Enterococcus, non-pathogenic	E. faecalis		E. faecium	
	yes		yes	
Isolates out of a monitoring program (yes/no)				
Number of isolates available in the laboratory	85		190	
Antimicrobials:	N	n	N	n
Amphenicols - Chloramphenicol	85	2	190	0
Tetracyclines - Tetracycline	85	73	190	177
Fluoroquinolones - Ciprofloxacin	85	0	190	0
Aminoglycosides - Streptomycin	85	8	190	63
Aminoglycosides - Gentamicin	85	0	190	0
Penicillins - Ampicillin	85	2	190	28
Fully sensitive	85	4	190	7
Glycopeptides (Cyclic peptides, Polypeptides) - Daptomycin	85	3	190	4
Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin	85	2	190	1
Glycylcyclines - Tigecycline	85	0	190	0
Macrolides - Erythromycin	85	49	190	96
Oxazolidines - Linezolid	85	3	190	0
Resistant to 1 antimicrobial	85	40	190	63
Resistant to 2 antimicrobials	85	31	190	67
Resistant to 3 antimicrobials	85	4	190	34
Resistant to 4 antimicrobials	85	4	190	16
Resistant to >4 antimicrobials	85	2	190	3
Streptogramins - Quinupristin/Dalfopristin	85	2	190	149

Table Antimicrobial susceptibility testing of Enterococcus, non-pathogenic in Gallus gallus (fowl)

Footnote:

data from strains isolated in 2009

Table Antimicrobial susceptibility testing of Enterococcus, non-pathogenic in Pigs

Enterococcus, non-pathogenic	E. faecalis		E. faecium	
	yes		yes	
Isolates out of a monitoring program (yes/no)				
Number of isolates available in the laboratory	16		73	
Antimicrobials:	N	n	N	n
Amphenicols - Chloramphenicol	16	1	73	1
Tetracyclines - Tetracycline	16	5	73	56
Fluoroquinolones - Ciprofloxacin	16	0	73	3
Aminoglycosides - Streptomycin	16	1	73	27
Aminoglycosides - Gentamicin	16	1	73	0
Penicillins - Ampicillin	16	0	73	3
Fully sensitive	16	11	73	13
Glycopeptides (Cyclic peptides, Polypeptides) - Daptomycin	16	0	73	9
Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin	16	0	73	2
Glycylcyclines - Tigecycline	16	0	73	0
Macrolides - Erythromycin	16	1	73	39
Oxazolidines - Linezolid	16	0	73	0
Resistant to 1 antimicrobial	16	4	73	16
Resistant to 2 antimicrobials	16	0	73	16
Resistant to 3 antimicrobials	16	0	73	21
Resistant to 4 antimicrobials	16	0	73	7
Resistant to >4 antimicrobials	16	1	73	0
Streptogramins - Quinupristin/Dalfopristin	16	0	73	60

Table Antimicrobial susceptibility testing of Enterococcus, non-pathogenic in Pigs

Footnote:
data from strains isolated in 2009

Table Antimicrobial susceptibility testing of *E. faecalis* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

E. faecalis	Gallus gallus (fowl)																									
	yes																									
	85																									
Antimicrobials:	Cut-off value	N	n	≤ 0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest	
Amphenicols - Chloramphenicol	32	85	2									1	18	62	2	0	2	0							2	64
Tetracyclines - Tetracycline	4	85	73						3	9	0	0	0	0	0	4	26	42	1						0.25	128
Fluoroquinolones - Ciprofloxacin	4	85	0						1	4	67	13	0	0	0	0	0								0.25	32
Aminoglycosides - Streptomycin	512	85	8												0	2	3	63	9	0	0	0	8	16	2048	
Aminoglycosides - Gentamicin	32	85	0									0	1	48	35	1	0	0	0	0	0				2	512
Penicillins - Ampicillin	4	85	2					2	0	9	68	4	0	0	0	1	1								0.12	32
Glycopeptides (Cyclic peptides, Polypeptides) - Daptomycin	4	85	3					0	0	1	48	27	6	1	0	2									0.12	16
Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin	4	85	2						1	1	27	52	2	0	0	2									0.25	16
Glycylcyclines - Tigecycline	0.25	85	0		0	0	25	52	8	0	0	0													0.015	1
Macrolides - Erythromycin	4	85	49					0	0	6	18	10	2	1	25	3	1	19							0.12	64
Oxazolidinones - Linezolid	4	85	3							2	16	60	4	1	2										0.5	8
Streptogramins - Quinupristin/Dalfopristin	32	85	2						0	0	0	2	1	54	26	0	2								0.25	32

Footnote:

data from stains isolated in 2009

Table Antimicrobial susceptibility testing of *E. faecalis* in Pigs - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

E. faecalis	Pigs																									
	yes																									
	16																									
Antimicrobials:	Cut-off value	N	n	<=0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest	
Amphenicols - Chloramphenicol	32	16	1									0	0	15	0	0	1	0						2	64	
Tetracyclines - Tetracycline	4	16	5						2	8	1	0	0	0	1	0	4	0	0						0.25	128
Fluoroquinolones - Ciprofloxacin	4	16	0						0	0	12	4	0	0	0	0	0								0.25	32
Aminoglycosides - Streptomycin	512	16	1												0	0	1	6	8	0	0	0	1	16	2048	
Aminoglycosides - Gentamicin	32	16	1									0	0	1	13	1	0	0	0	0	1				2	512
Penicillins - Ampicillin	4	16	0					0	0	2	14	0	0	0	0	0	0								0.12	32
Glycopeptides (Cyclic peptides, Polypeptides) - Daptomycin	4	16	0					0	0	0	3	12	1	0	0	0									0.12	16
Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin	4	16	0						0	0	7	9	0	0	0	0									0.25	16
Glycylcyclines - Tigecycline	0.25	16	0		0	0	12	4	0	0	0	0													0.015	1
Macrolides - Erythromycin	4	16	1					0	5	1	4	5	0	0	0	0	0	1							0.12	64
Oxazolidines - Linezolid	4	16	0							0	0	14	2	0	0										0.5	8
Streptogramins - Quinupristin/Dalfopristin	32	16	0						0	0	0	0	0	15	1	0	0								0.25	32

Footnote:

data from strains isolated in 2009

Table Antimicrobial susceptibility testing of *E. faecium* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

Concentration (µg/ml), number of isolates with a concentration of inhibition equal to

E. faecium	Gallus gallus (fowl)																									
	yes																									
	190																									
Antimicrobials:	Cut-off value	N	n	<=0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest	
Amphenicols - Chloramphenicol	32	190	0									5	60	87	36	2	0	0							2	64
Tetracyclines - Tetracycline	4	190	177						7	6	0	0	0	0	2	9	34	128	4						0.25	128
Fluoroquinolones - Ciprofloxacin	4	190	0						4	8	25	82	71	0	0	0	0								0.25	32
Aminoglycosides - Streptomycin	128	190	63												1	35	73	18	4	5	12	12	30	16	2048	
Aminoglycosides - Gentamicin	32	190	0									0	50	112	26	2	0	0	0	0	0				2	512
Penicillins - Ampicillin	4	190	28					20	20	23	44	37	18	4	2	1	21								0.12	32
Glycopeptides (Cyclic peptides, Polypeptides) - Daptomycin	4	190	4					0	1	12	71	68	34	3	1	0									0.12	16
Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin	4	190	1						7	139	27	15	1	1	0	0									0.25	16
Glycylcyclines - Tigecycline	0.25	190	0		0	8	100	79	3	0	0	0													0.015	1
Macrolides - Erythromycin	4	190	96					15	6	20	35	11	7	2	10	2	3	79							0.12	64
Oxazolidines - Linezolid	4	190	0							0	24	158	8	0	0										0.5	8
Streptogramins - Quinupristin/Dalfopristin	1	190	149						0	15	26	90	39	20	0	0	0								0.25	32

Footnote:

data from strains isolated in 2009

Table Antimicrobial susceptibility testing of *E. faecium* in Pigs - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

<i>E. faecium</i>	Pigs																									
	yes																									
	73																									
Antimicrobials:	Cut-off value	N	n	≤ 0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest	
Amphenicols - Chloramphenicol	32	73	1									0	6	63	3	0	1	0							2	64
Tetracyclines - Tetracycline	4	73	56						12	4	1	0	0	0	0	1	17	38	0						0.25	128
Fluoroquinolones - Ciprofloxacin	4	73	3						16	25	12	7	10	3	0	0	0								0.25	32
Aminoglycosides - Streptomycin	128	73	27												0	2	40	4	1	0	1	7	18	16	2048	
Aminoglycosides - Gentamicin	32	73	0									2	6	47	16	2	0	0	0	0	0				2	512
Penicillins - Ampicillin	4	73	3					0	5	8	15	1	41	3	0	0	0								0.12	32
Glycopeptides (Cyclic peptides, Polypeptides) - Daptomycin	4	73	9					0	2	7	9	17	29	9	0	0									0.12	16
Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin	4	73	2						1	63	4	3	0	0	0	2									0.25	16
Glycylcyclines - Tigecycline	0.25	73	0		0	20	33	18	2	0	0	0													0.015	1
Macrolides - Erythromycin	4	73	39					4	2	1	17	9	1	0	0	0	0	39							0.12	64
Oxazolidines - Linezolid	4	73	0							0	2	66	5	0	0										0.5	8
Streptogramins - Quinupristin/Dalfopristin	1	73	60						0	7	6	28	29	1	2	0	0								0.25	32

Footnote:

data from strains isolated in 2009

Table Cut-off values for antibiotic resistance of *E. faecalis* in Animals

Test Method Used	Standard methods used for testing
Broth dilution	NCCLS/CLSI EUCAST/EURL

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Streptomycin	EUCAST	512	
	Gentamicin	EUCAST	32	
Amphenicols	Chloramphenicol	EUCAST	32	
Penicillins	Ampicillin	EUCAST	4	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin	EUCAST	4	
	Daptomycin	EUCAST	4	
Macrolides	Erythromycin	EUCAST	4	
Streptogramins	Quinupristin/Dalfopristin	EURL	32	
Tetracyclines	Tetracycline	EUCAST	4	
Oxazolidines	Linezolid	EUCAST	4	
Fluoroquinolones	Ciprofloxacin	EUCAST	4	
Glycylcyclines	Tigecycline	EUCAST	0.25	

Table Cut-off values for antibiotic resistance of E. faecalis in Animals

Table Cut-off values for antibiotic resistance of *E. faecalis* in Feed

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Streptomycin		512	
	Gentamicin		32	
Amphenicols	Chloramphenicol		32	
Penicillins	Ampicillin		4	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Streptogramins	Quinupristin/Dalfopristin		32	
Tetracyclines	Tetracycline		2	
Oxazolidines	Linezolid		4	

Table Cut-off values for antibiotic resistance of *E. faecalis* in Food

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Streptomycin		512	
	Gentamicin		32	
Amphenicols	Chloramphenicol		32	
Penicillins	Ampicillin		4	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Streptogramins	Quinupristin/Dalfopristin		32	
Tetracyclines	Tetracycline		2	
Oxazolidines	Linezolid		4	

Table Cut-off values for antibiotic resistance of *E. faecium* in Animals

Test Method Used	Standard methods used for testing
Broth dilution	NCCLS/CLSI EUCAST

		Concentration (microg/ml)		Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Streptomycin	EUCAST	128	
	Gentamicin	EUCAST	32	
Amphenicols	Chloramphenicol	EUCAST	32	
Penicillins	Ampicillin	EUCAST	4	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin	EUCAST	4	
	Daptomycin	EUCAST	4	
Macrolides	Erythromycin	EUCAST	4	
Streptogramins	Quinupristin/Dalfopristin	EUCAST	1	
Tetracyclines	Tetracycline	EUCAST	4	
Oxazolidines	Linezolid	EUCAST	4	
Fluoroquinolones	Ciprofloxacin	EUCAST	4	
Glycylcyclines	Tigecycline	EUCAST	0.25	

Table Cut-off values for antibiotic resistance of E. faecium in Animals

Table Cut-off values for antibiotic resistance of *E. faecium* in Feed

Test Method Used

Standard methods used for testing

		Concentration (microg/ml)		Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Streptomycin		128	
	Gentamicin		32	
Amphenicols	Chloramphenicol		32	
Penicillins	Ampicillin		4	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	
Oxazolidines	Linezolid		4	

Table Cut-off values for antibiotic resistance of *E. faecium* in Food

Test Method Used

Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Streptomycin		128	
	Gentamicin		32	
Amphenicols	Chloramphenicol		32	
Penicillins	Ampicillin		4	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	
Oxazolidines	Linezolid		4	

4. INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS

4.1 ENTEROBACTER SAKAZAKII

4.1.1 General evaluation of the national situation

A. Enterobacter sakazakii general evaluation

History of the disease and/or infection in the country

-

National evaluation of the recent situation, the trends and sources of infection

http://www.invs.sante.fr/publications/2006/infections_e_sakazakii/index.html

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

-

Recent actions taken to control the hazard

-

Suggestions to the Community for the actions to be taken

-

Additional information

-

4.1.2 Enterobacter sakazakii in foodstuffs

A. Enterobacter sakazakii in foodstuffs

Monitoring system

Sampling strategy

-

Frequency of the sampling

-

Methods of sampling (description of sampling techniques)

-

Definition of positive finding

-

Diagnostic/analytical methods used

-

Preventive measures in place

Surveillance in accordance with Reg. (EC) 2073-2005

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the hazard

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Notification system in place

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in foodstuffs to human cases (as a source of human infection)

-

Additional information

4.2 HISTAMINE

4.2.1 General evaluation of the national situation

A. Histamine General evaluation

History of the disease and/or infection in the country

See Invs website (see part "additional information")

National evaluation of the recent situation, the trends and sources of infection

Histamine poisoning is the first cause of fish-related foodborne infection in France. Cases of intoxication due to histamine is in constant increasing.

In 2006, 76 collective toxi-infections were due to histamine (407 diseases, 35 hospitalized). Thunna was involved in 94.4% of the cases.

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

--

Recent actions taken to control the hazard

--

Suggestions to the Community for the actions to be taken

--

Additional information

See specific file on:

<http://www.invs.sante.fr/>

In animals:

<http://www.afssa.fr/Documents/MIC-Fi-Histamine.pdf>

4.2.2 Histamine in foodstuffs

A. Histamine in foodstuffs

Monitoring system

Sampling strategy

The sampling is done according risk assessment and risk exposure:

- population density of the departement
- population movings especially during summer
- datas of human consumption of fish given by "OFIMER"
- a ring sampling to cover the whole country every three years
- official samples are made by departement vet services
- fish species susceptibles at high rate of histamine

Frequency of the sampling

Monitoring plan every year at retail level (market or supermarket) or distribution stage (restaurant, catering).

Methods of sampling (description of sampling techniques)

For ready to eat product at retail level

250g of a batch of several products (same shelf storage)

For big size fish sold in a market stall: 2 cubes of flesh (125g *2) or 250 g flesh near dorsal fin and median abdomen part.

- Registered temperature for samples (between 0 and 2°C)
- samples are frozen before being sent to analyse

Definition of positive finding

For the monitoring plan every result >100 ppm (10mg/100g) is confirmed by HPLC in NRL.

Non conformity result is > 100ppm

Diagnostic/analytical methods used

HPLC (high performance liquid chromatography)

<http://www.afssa.fr/Poisson/Documents/MIC-Fi-HistaminePeche.pdf>

By the NRL AFSSA Boulogne-Sur-Mer

Preventive measures in place

Inspections, close cooperation system between local health services and local vet services. Coordination at the central level.

Control program/mechanisms

The control program/strategies in place

A monitoring plan is made every year on fish products in accordance with Reg. (EC) 2073-2005 (and 882/2004 and 854/2004 and in close cooperation with Invs and ANSES Boulogne-sur-Mer.

Recent actions taken to control the hazard

--

Suggestions to the Community for the actions to be taken

--

Measures in case of the positive findings or single cases

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Market withdrawal

Notification system in place

Close cooperation between vet services and health services at local and central level (emergency units)

Results of the investigation

<http://www.academie-veterinaire-defrance.org/bulletin/pdf/2009/03.pdf>

National evaluation of the recent situation, the trends and sources of infection

--

Relevance of the findings in foodstuffs to human cases (as a source of human infection)

--

Additional information

NRL for histamine

ANSES

Quai Désiré Delmotte, 62200 Boulogne sur Mer

Table Histamine in food

	Source of information	Sampling unit	Sample weight	Units tested	Total units in non-conformity	<= 100 mg/kg	>100 - <= 200 mg/kg	>200 - <= 400 mg/kg	> 400 mg/kg
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at catering - Monitoring - official sampling ¹⁾	CCA	Single	250	86	4	81	2		2
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at retail - domestic production - Monitoring - official sampling ²⁾	CCA	Single	250	379	8	371	4	3	1
Fish - marinated - at retail - domestic production - Monitoring - official sampling ³⁾	CCA	Single	250	39	5	34		4	1
Fish - smoked - at retail - domestic production - Monitoring - official sampling ⁴⁾	CCA	Single	250	59	0	59			
Fishery products, unspecified - non-ready-to-eat - chilled - at retail - domestic production - Monitoring - official sampling ⁵⁾	CCA	Single	250	70	1	69	1		

Comments:

- ¹⁾ Thunna (5 non conformity on 64 samples), mackerels (1 NC on 66 samples)), sardines (2 NC on 80 samples), salmon (0 NC on 23 samples) or other fishes associated with histamine risks (0 NC on 24 samples)
- ²⁾ Thunna (4 NC on 69)), salmon (0 NC on 13) or other fishes associated with histamine risks (0 NC on 4)
- ³⁾ herring (2 NC on 22)) or anchovy (2 NC on 17))
- ⁴⁾ herrings
- ⁵⁾ Fishes associated with histamine risks

Table Histamine in food

4.3 STAPHYLOCOCCAL ENTEROTOXINS

4.3.1 General evaluation of the national situation

A. Staphylococcal enterotoxins general evaluation

History of the disease and/or infection in the country

See "additional informations"

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)

-

Recent actions taken to control the hazard

-

Suggestions to the Community for the actions to be taken

-

Additional information

http://nte-serveur.univ-lyon1.fr/hcl2004/CNR_staphylocoques/

http://www.invs.sante.fr/publications/2005/snmi/syndromes_toxiques_staphylococciques.html

4.3.2 Staphylococcal enterotoxins in foodstuffs

A. Staphylococcal enterotoxins in foodstuffs

Monitoring system

Sampling strategy

-

Frequency of the sampling

-

Methods of sampling (description of sampling techniques)

-

Definition of positive finding

-

Diagnostic/analytical methods used

-

Preventive measures in place

-

Control program/mechanisms

The control program/strategies in place

-

Recent actions taken to control the hazard

-

Suggestions to the Community for the actions to be taken

-

Measures in case of the positive findings or single cases

-

Notification system in place

-

Results of the investigation

-

National evaluation of the recent situation, the trends and sources of infection

-

Relevance of the findings in foodstuffs to human cases (as a source of human infection)

-

Additional information

-

5. FOODBORNE

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.

A. Foodborne outbreaks

System in place for identification, epidemiological investigations and reporting of foodborne outbreaks

Interesting informations are available on INVS website (see "additional information), or www.alimentation.gouv.fr

The investigations are made on the field and centrally in close cooperation between general directorate for food (especially office for sanitary emergencies), InVS and French Directorate for health, mission for sanitary emergencies. Details about this organisation are available at <http://www.frenchfoodsafety.co.uk/> (in several languages). In France, the government guarantees a high level of consumer protection. This is why, beyond its power of regulation, the State ensures a large monitoring mission across the different services of the three ministries concerned with agriculture, health and consumption. The Ministry of Agriculture and Fishing is the pilot ministry in respect of food safety and the Directorate General of Food, the relevant management.

The coordination and collaboration between the French ministries spreads out in a similar way between the different locally present departmental administrations, under the aegis of prefects. For greater efficacy, the command chain is short between central administration, the decision maker and the departments, the executives.

The prefect : In France, prefects are high-ranking civil servants, appointed by the president of the Republic. They represent the State in the departments (there are 100) and regions (there are 22).

The departments and regions are the grass roots administrative units which share the French territory and within which administration is coordinated by the prefect.

Nearly 8000 public agents participate in France in the guarding of safety in the food sector. Large human resources are dedicated to inspections and checks. The French territory has available for its use a network of laboratories that allow extensive analysis in the veterinary field: 12 national leading laboratories and a public analysis laboratory in each of the 100 French departments.

The French system, in the same way as all the countries that export to the European Union, regularly submits to external audits organised under the aegis of the European Commission and led by the Food and Veterinary Office (OAV). This office monitors respect for the European regulations with regard to the hygiene of foodstuffs particularly for the European Union and for other foreign countries, called third countries.

The health authorities, agricultural professionals and food manufacturers make use of everything available to them to ensure flawless knowledge about the origin of ingredients and products which enter into the composition of foodstuffs that are then sold. Since 1st July 2005, the obligation of traceability has been extensive in the European Union. It makes it possible to be able to follow the movement of products, from the field to the shop - whether it be in France or abroad - passing through the factory, transport, place of storage and distribution, so as to guarantee at the same time origin and safety, at each stage from the preparation process to the final product.

According to the international standard ISO 8402, traceability is « the ability to rediscover the history, use or the location of an entity, through the medium of registered identifications».

The label is a component of traceability. A source of information, it allows the consumer to be informed and to go back through the whole of the production chain. The French authorities have an obligation to provide information and be transparent with regards to consumers.

Even if food has never been as safe as now and if the risks are truly less than in the past, incidents remain possible in spite of numerous measures put in place.

Human listeriosis : In the 1980s, between 11 and 14 cases were recorded annually compared with 4 in 2000 according to the National Reference and Obligatory Declaration Centre. If national and European alerts grow in number, it is due to the reinforcement of vigilance, monitoring, technical and scientific developments made.

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If needed, an alert system is activated by the authorities if it has not already been done by the company or the organisation concerned, which is legally responsible for the marketing of their products. The alert given allows those products at risk to be identified in order to withdraw them from points of sale and to inform consumers, so that they bring back defective products that they have bought.

When there is an alert on an exported product, information reaches the health authorities of the importing country to allow them to take action.

Abroad, it is the agriculture attachés and French vets positioned in the embassies who ensure the links with the national health authorities.

Description of the types of outbreaks covered by the reporting:

--

National evaluation of the reported outbreaks in the country:

Trends in numbers of outbreaks and numbers of human cases involved

--

Relevance of the different causative agents, food categories and the agent/food category combinations

--

Relevance of the different type of places of food production and preparation in outbreaks

--

Evaluation of the severity and clinical picture of the human cases

--

Descriptions of single outbreaks of special interest

See updated information about outbreak of interest on inVS web site

Control measures or other actions taken to improve the situation

--

Suggestions to the community for the actions to be taken

--

Additional information

<http://www.invs.sante.fr/surveillance/tiac/default.htm>

Table Foodborne Outbreaks: summarised data

	Number of outbreaks	Human cases	Hospitalized	Deaths	Strong evidence Number of Outbreaks	Total number of outbreaks
Salmonella - S. Typhimurium	5	55	6	0	25	30
Salmonella - S. Enteritidis	0	unknown	unknown	unknown	0	0
Salmonella - Other serovars	88	475	60	0	22	110
Campylobacter	20	168	9	0	0	20
Listeria - Listeria monocytogenes	0	unknown	unknown	unknown	0	0
Listeria - Other Listeria	0	unknown	unknown	unknown	0	0
Yersinia	2	22	0	0	0	2
Escherichia coli, pathogenic -	7	41	1	0	0	7
Bacillus - B. cereus	60	641	51	0	1	61
Bacillus - Other Bacillus	0	unknown	unknown	unknown	0	0
Staphylococcal enterotoxins	212	1643	166	0	8	220
Clostridium - Cl. botulinum	1	5	5	0	1	2
Clostridium - Cl. perfringens	44	871	9	0	1	45
Clostridium - Other Clostridia	0	unknown	unknown	unknown	0	0
Other Bacterial agents - Brucella	0	unknown	unknown	unknown	0	0

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	Number of outbreaks	Human cases	Hospitalized	Deaths	Strong evidence Number of Outbreaks	Total number of outbreaks
Other Bacterial agents - Shigella	3	14	3	0	0	3
Other Bacterial agents - Other Bacterial	2	10	1	0	0	2
Parasites - Trichinella	0	unknown	unknown	unknown	0	0
Parasites - Giardia	0	unknown	unknown	unknown	0	0
Parasites - Cryptosporidium	0	unknown	unknown	unknown	0	0
Parasites - Anisakis	1	3	0	0	0	1
Parasites - Other Parasites	1	6	0	0	0	1
Viruses - Norovirus	106	1304	18	0	4	110
Viruses - Hepatitis viruses	0	unknown	unknown	unknown	0	0
Viruses - Other Viruses	0	unknown	unknown	unknown	0	0
Other agents - Histamine	25	110	22	0	0	25
Other agents - Marine biotoxins	24	118	2	0	10	34
Other agents - Other Agents	22	138	15	0	0	22
Unknown agent	341	2937	98	0	3	344

Table Foodborne Outbreaks: detailed data for Bacillus

Please use CTRL for multiple selection fields

B. cereus

Value

FBO Code	406602
Number of outbreaks	1
Number of human cases	62
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Canned food products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Camp, picnic
Place of origin of problem	Camp, picnic
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Table Foodborne Outbreaks: detailed data for Clostridium

Please use CTRL for multiple selection fields

C. perfringens

Value

FBO Code	10_84_01
Number of outbreaks	1
Number of human cases	12
Number of hospitalisations	unknown
Number of deaths	0
Food vehicle	Broiler meat (Gallus gallus) and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Hospital/medical care facility
Place of origin of problem	Hospital/medical care facility
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

C. botulinum

Value

FBO Code	10_2B_01
Number of outbreaks	1
Number of human cases	5
Number of hospitalisations	4
Number of deaths	1
Food vehicle	Vegetables and juices and other products thereof
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Inadequate heat treatment
Mixed Outbreaks (Other Agent)	
Additional information	

Table Foodborne Outbreaks: detailed data for Other agents

Please use CTRL for multiple selection fields

Marine biotoxins

Value

FBO Code	406680
Number of outbreaks	1
Number of human cases	10
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Crustaceans, shellfish, molluscs and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Marine biotoxins

Value

FBO Code	10_34_34
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	unknown
Number of deaths	0
Food vehicle	Crustaceans, shellfish, molluscs and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Marine biotoxins

Value

FBO Code	10_30-05
Number of outbreaks	8
Number of human cases	46
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Crustaceans, shellfish, molluscs and products thereof
More food vehicle information	
Nature of evidence	Analytical epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Intra EU trade
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Table Foodborne Outbreaks: detailed data for Salmonella

Please use CTRL for multiple selection fields

S. Typhimurium

Value

FBO Code	406515
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Canteen or workplace catering
Place of origin of problem	Canteen or workplace catering
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406667
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	10_60_08
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Vegetables and juices and other products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	10_46_01
Number of outbreaks	1
Number of human cases	20
Number of hospitalisations	unknown
Number of deaths	0
Food vehicle	Broiler meat (Gallus gallus) and products thereof
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans
Outbreak type	Household / domestic kitchen
Setting	Temporary mass catering (fairs, festivals)
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	406480
Number of outbreaks	1
Number of human cases	25
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Mixed or buffet meals
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	School, kindergarten
Place of origin of problem	School, kindergarten
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	628274
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406420
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Mixed or buffet meals
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	Household / domestic kitchen
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406565
Number of outbreaks	1
Number of human cases	10
Number of hospitalisations	5
Number of deaths	0
Food vehicle	Broiler meat (<i>Gallus gallus</i>) and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Temporary mass catering (fairs, festivals)
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	461049
Number of outbreaks	1
Number of human cases	7
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406485
Number of outbreaks	1
Number of human cases	4
Number of hospitalisations	4
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	461518
Number of outbreaks	1
Number of human cases	4
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Unknown
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Paratyphi B var. Java

Value

FBO Code	10_75_60
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Broiler meat (Gallus gallus) and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406426
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	10_40_02
Number of outbreaks	1
Number of human cases	4
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	10_70_02
Number of outbreaks	1
Number of human cases	5
Number of hospitalisations	4
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	406566
Number of outbreaks	1
Number of human cases	8
Number of hospitalisations	4
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	462444
Number of outbreaks	1
Number of human cases	5
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406371
Number of outbreaks	1
Number of human cases	17
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Temporary mass catering (fairs, festivals)
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	10_28_01
Number of outbreaks	1
Number of human cases	5
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	406370
Number of outbreaks	1
Number of human cases	22
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	462033
Number of outbreaks	5
Number of human cases	565
Number of hospitalisations	33
Number of deaths	0
Food vehicle	Bovine meat and products thereof
More food vehicle information	
Nature of evidence	Analytical epidemiological evidence
Outbreak type	General
Setting	Other setting
Place of origin of problem	Other
Origin of food vehicle	Intra EU trade
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	461176
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Bovine meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	10_65_03
Number of outbreaks	1
Number of human cases	4
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	406248
Number of outbreaks	1
Number of human cases	5
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	461807
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Unknown
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	406445
Number of outbreaks	1
Number of human cases	8
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	10_64_03
Number of outbreaks	1
Number of human cases	17
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Temporary mass catering (fairs, festivals)
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406604
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406593
Number of outbreaks	1
Number of human cases	5
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Vegetables and juices and other products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Newport

Value

FBO Code	406528
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	unknown
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406640
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Crustaceans, shellfish, molluscs and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Newport

Value

FBO Code	406608
Number of outbreaks	1
Number of human cases	14
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Cheese
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Other setting
Place of origin of problem	Other
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	406506
Number of outbreaks	1
Number of human cases	8
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	General
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	463515
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Other setting
Place of origin of problem	Other
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	10_17_19
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Crustaceans, shellfish, molluscs and products thereof
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	462022
Number of outbreaks	1
Number of human cases	9
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Temporary mass catering (fairs, festivals)
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	10_76_270
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	463077
Number of outbreaks	1
Number of human cases	6
Number of hospitalisations	5
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	461523
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Mixed or buffet meals
More food vehicle information	
Nature of evidence	Analytical epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	625917
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Eggs and egg products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Unknown
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

S. Typhimurium

Value

FBO Code	10_59_24
Number of outbreaks	2
Number of human cases	7
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Bovine meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	School, kindergarten
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Salmonella spp.

Value

FBO Code	406643
Number of outbreaks	1
Number of human cases	2
Number of hospitalisations	2
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Table Foodborne Outbreaks: detailed data for Staphylococcal enterotoxins

Please use CTRL for multiple selection fields

Enterotoxin, unspecified

Value

FBO Code	10_34_03
Number of outbreaks	1
Number of human cases	110
Number of hospitalisations	94
Number of deaths	0
Food vehicle	Pig meat and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Temporary mass catering (fairs, festivals)
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Unknown
Contributory factors	Infected food handler
Mixed Outbreaks (Other Agent)	
Additional information	

Enterotoxin, unspecified

Value

FBO Code	406459
Number of outbreaks	1
Number of human cases	13
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	School, kindergarten
Place of origin of problem	School, kindergarten
Origin of food vehicle	Unknown
Contributory factors	Infected food handler
Mixed Outbreaks (Other Agent)	
Additional information	

Enterotoxin, unspecified

Value

FBO Code	406366
Number of outbreaks	1
Number of human cases	30
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Unknown
Setting	School, kindergarten
Place of origin of problem	School, kindergarten
Origin of food vehicle	Unknown
Contributory factors	Infected food handler
Mixed Outbreaks (Other Agent)	
Additional information	

Enterotoxin, unspecified

Value

FBO Code	406462
Number of outbreaks	1
Number of human cases	24
Number of hospitalisations	1
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Other setting
Place of origin of problem	Other
Origin of food vehicle	Unknown
Contributory factors	Infected food handler
Mixed Outbreaks (Other Agent)	
Additional information	

Enterotoxin, unspecified

Value

FBO Code	627397
Number of outbreaks	1
Number of human cases	11
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Broiler meat (<i>Gallus gallus</i>) and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Hospital/medical care facility
Place of origin of problem	Hospital/medical care facility
Origin of food vehicle	Unknown
Contributory factors	Infected food handler
Mixed Outbreaks (Other Agent)	
Additional information	

Enterotoxin, unspecified

Value

FBO Code	461526
Number of outbreaks	1
Number of human cases	20
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Bakery products
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Other setting
Place of origin of problem	Other
Origin of food vehicle	Unknown
Contributory factors	Infected food handler
Mixed Outbreaks (Other Agent)	
Additional information	

Enterotoxin, unspecified

Value

FBO Code	406691
Number of outbreaks	2
Number of human cases	172
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Bovine meat and products thereof
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	General
Setting	School, kindergarten
Place of origin of problem	School, kindergarten
Origin of food vehicle	Unknown
Contributory factors	Infected food handler
Mixed Outbreaks (Other Agent)	
Additional information	

Table Foodborne Outbreaks: detailed data for Unknown agent

Please use CTRL for multiple selection fields

Unknown

Value

FBO Code	406693
Number of outbreaks	1
Number of human cases	5
Number of hospitalisations	5
Number of deaths	0
Food vehicle	Vegetables and juices and other products thereof
More food vehicle information	
Nature of evidence	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent
Outbreak type	Household / domestic kitchen
Setting	Other setting
Place of origin of problem	Other
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Unknown

Value

FBO Code	406688
Number of outbreaks	1
Number of human cases	6
Number of hospitalisations	6
Number of deaths	0
Food vehicle	Vegetables and juices and other products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Unknown

Value

FBO Code	406698
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	3
Number of deaths	0
Food vehicle	Vegetables and juices and other products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	Household / domestic kitchen
Setting	Household / domestic kitchen
Place of origin of problem	Household / domestic kitchen
Origin of food vehicle	Unknown
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	

Table Foodborne Outbreaks: detailed data for Viruses

Please use CTRL for multiple selection fields

Calicivirus - norovirus (Norwalk-like virus)

Value

FBO Code	406241
Number of outbreaks	1
Number of human cases	3
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Crustaceans, shellfish, molluscs and products thereof
More food vehicle information	
Nature of evidence	Descriptive epidemiological evidence
Outbreak type	General
Setting	Restaurant, Cafe, Pub, Bar, Hotel
Place of origin of problem	Restaurant/Café/Pub/Bar/Hotel/Catering service
Origin of food vehicle	Unknown
Contributory factors	Unknown
Mixed Outbreaks (Other Agent)	
Additional information	

Calicivirus - norovirus (Norwalk-like virus)

Value

FBO Code	406209
Number of outbreaks	3
Number of human cases	46
Number of hospitalisations	0
Number of deaths	0
Food vehicle	Crustaceans, shellfish, molluscs and products thereof
More food vehicle information	
Nature of evidence	Analytical epidemiological evidence
Outbreak type	General
Setting	Temporary mass catering (fairs, festivals)
Place of origin of problem	Temporary mass catering (fairs, festivals)
Origin of food vehicle	Intra EU trade
Contributory factors	Unprocessed contaminated ingredient
Mixed Outbreaks (Other Agent)	
Additional information	