

## CZECH REPUBLIC

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

### TRENDS AND SOURCES OF ZOONOSSES AND ZOOTIC AGENTS IN HUMANS, FOODSTUFFS, ANIMALS AND FEEDSTUFFS

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

## IN 2012

## INFORMATION ON THE REPORTING AND MONITORING SYSTEM

Country: Czech Republic

Reporting Year: 2012

Laboratory name	Description	Contribution
State Veterinary Administration of the Czech Republic	Main tasks are protection of consumers from products of animal origin likely to be harmful to human health, monitoring of animal health situation and maintaining it favourable, veterinary protection of the state territory of the Czech Republic and animal welfare and animal protection	Contact point for Commission in accordance with Article 3 (2) Regulation 2003/99/EC. Monitoring, data collection and reporting
Czech Agriculture and Food Inspection Authority (CAFIA)	Responsible for the control at wholesale and retail level of former foodstuffs including packaged meat and meat products	Sampling, laboratory testing and reporting.
National Institute of Public Health (NIPH)	Health promotion and protection, disease prevention and follow-up environmental impact on the health status of the population. Two department are involved to the zoonoses reporting: Department of epidemiology and microbiology and Department of food chain hygiene.	Foodborn outbreaks reporting, sampling, laboratory testing and reporting.

## 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 Czech Republic during the year 2012 .

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.

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\* 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

Czech Statistical Office

Official statistics from Central Register of Animals in the Czech Republic which is performing in accordance with Breeding Act No. 154/2000 as amended

Data from State Veterinary Administration database

### Dates the figures relate to and the content of the figures

Numbers of animals and holdings related to 31. 12. 2012.

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			94253		446237		16428	
	dairy cows and heifers			141895		438702		14881	
	calves (under 1 year)			10137		505172		13135	
	- in total			246285		1390111		19493	
Deer	farmed - in total					2924		65	
Ducks	meat production flocks					2372864		75	
	breeding flocks, unspecified - in total					49149		35	
	- in total			1444043		2422013		110	
Gallus gallus (fowl)	breeding flocks for egg production line - in total	30				312277		7	
	breeding flocks for meat production line - in total	612				4197494		69	
	breeding flocks, unspecified - in total	642				4509771		76	
	elite breeding flocks for egg production line	7				86378		4	
	elite breeding flocks for meat production line	0				0		0	



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, unspecified - in total	7				86378		4	
	parent breeding flocks for egg production line	23				225899		3	
	parent breeding flocks for meat production line	603				4123065		68	
	parent breeding flocks, unspecified - in total	626				4348964		71	
	grandparent breeding flocks for egg production line	0				0		0	
	grandparent breeding flocks for meat production line	9				74429		1	
	grandparent breeding flocks, unspecified - in total	9				74429		1	
	laying hens	392				6802162		67	
	broilers	5145				131667326		320	
	- in total	6179		117191185		142979259		463	
Geese	meat production flocks					131324		18	
	breeding flocks, unspecified - in total					8640		14	
	- in total					139964		32	
Goats	animals under 1 year					6068		1372	

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	animals over 1 year					28822		4707	
	- in total			640		34890		6079	
Pigs	breeding animals					148472		1666	
	fattening pigs					1578057		919	
	- in total			2770574		1726529		2585	
Sheep	animals under 1 year (lambs)					45908		5105	
	animals over 1 year					216011		10079	
	- in total			12181		261919		15184	
Solipeds, domestic	horses - in total			407		87439		14532	
Turkeys	meat production flocks	266				874963		59	
	parent breeding flocks	18				31436		1	
	- in total	284		81037		906399		60	

Footnote:

The number of flocks of Gallus gallus and turkeys is the number of flocks in production period tested in the framework of the Salmonella control programmes.

Table Susceptible animal populations

Number of slaughtered ducks is number of slaughtered ducks and geese together.

## 2. INFORMATION ON SPECIFIC ZOO NOSES AND ZOONOTIC AGENTS

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

## 2.1 SALMONELLOSIS

### 2.1.1 General evaluation of the national situation

#### A. General evaluation

##### History of the disease and/or infection in the country

The monitoring and control programmes for Salmonella are carried out in the whole food chain. To this programmes are involved three institutions which are in charge for food safety and public health protection. Czech Agriculture and Food Inspection Authority and State Veterinary Administration have been established by Ministry of Agriculture and National Institute of Public Health has been established by Ministry of Health. The Salmonellosis is notifiable disease in both in human and animal population and the obligation for notification is laid down in the legislation.

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

The main sources of infection in humans were products from eggs and poultry meat. The number of reported cases in human population has decreasing tendency during last years.

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

There is no relevance between finding in animals and finding in human. These cases are very rare. The main source of infection is through to foodstuffs of animal origin.

##### Recent actions taken to control the zoonoses

State Veterinary Administration, Ministry of Agriculture and Poultry Breeding Association perform in accordance with Regulation No 2160/2003 Salmonella control programmes in breeding flocks, laying hens producing table eggs, broilers and turkeys.

## 2.1.2 Salmonella in foodstuffs

### A. Salmonella spp. in broiler meat and products thereof

#### Monitoring system

##### Sampling strategy

###### At slaughterhouse and cutting plant

The sampling is carried out from carcasses at slaughterhouses after chilling.

###### At meat processing plant

The samples were taken in the ordinary surveillance. The final products are sampled in the end of production. There is no official National Programme for the Monitoring of Salmonella spp. at retail and processing plant. The SVA performs controls on retail and processing plant according to Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs. Samples are collected by competent authorities from all 14 regions of the Czech Republic within the year as part of an official sampling, i.e. it is performed by inspectors from the Regional Veterinary Administrations, the samples are then analysed at the State Veterinary Institutes.

#### Frequency of the sampling

##### At slaughterhouse and cutting plant

Once a month at slaughterhouse (monitoring). Sampling distributed evenly throughout the year (cutting plant).

##### At meat processing plant

Sampling distributed evenly throughout the year

##### At retail

Once a month

#### Type of specimen taken

##### At slaughterhouse and cutting plant

neck skin samples, meat

##### At meat processing plant

final product

##### At retail

Fresh meat

#### Methods of sampling (description of sampling techniques)

##### At slaughterhouse and cutting plant

Sampling at slaughterhouses for poultry is carried out from carcasses after chilling; 15 neck skin samples are taken on random from 15 broiler carcasses. A piece of approximately 10g from neck skin shall be obtained from each carcass. The neck skin samples from three carcasses are pooled before examination to form 5 x 25g final samples. The slaughterhouses were selected so that the entire area of the Czech Republic was covered, if possible.

##### At meat processing plant

The samples - meat product (final product), were placed aseptically into a sample container and transfer

to the laboratory.

#### Definition of positive finding

At slaughterhouse and cutting plant

presence of salmonella in 25 g of sample

At meat processing plant

presence of salmonella in 25 g of sample

#### Diagnostic/analytical methods used

At slaughterhouse and cutting plant

Bacteriological method: ISO 6579:2002

At meat processing plant

Bacteriological method: ISO 6579:2002

At retail

Bacteriological method: ISO 6579:2002

#### Preventive measures in place

creation and control of HACCP and GHP system

#### Control program/mechanisms

The control program/strategies in place

The competent authority takes measures according to the legislation in force and defined cases are reported into the Rapid Alert System for Food and Feed.

Recent actions taken to control the zoonoses

SVA, NIPH and CAFIA carry out monitoring and control programs in the whole food chain and take appropriate measures according to the legislation in force to ensure safe foodstuffs.

#### Measures in case of the positive findings or single cases

In the case of positive result of the investigation the competent authority takes measures to prevent spreading of the infection to the food chain.

#### Notification system in place

The positive result of the bacteriological test has to be reported to the appropriate Regional Veterinary Administration (RVA) and the RVA has oblige to take appropriate measures. The positive results are reported to the RVA from laboratories which made the tests.

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

The prevalence of the Salmonella spp. in broiler meat and products is stable and situation is similar like in previous years.

## B. Salmonella spp. in pig meat and products thereof

### Monitoring system

#### Sampling strategy

##### At slaughterhouse and cutting plant

The slaughterhouses were selected so that the entire area of the Czech Republic was covered. Sampling at slaughterhouses for pig is performed on a random basis from surfaces of five carcasses; the samples are taken from four specified sites of carcasses before chilling. A non-destructive method with an abrasive sponge is used (according to ISO 17604).

##### At meat processing plant

The samples were taken in the ordinary surveillance.

##### At retail

#### Frequency of the sampling

##### At slaughterhouse and cutting plant

Once a month

##### At meat processing plant

Sampling distributed evenly throughout the year

#### Type of specimen taken

##### At slaughterhouse and cutting plant

carcass swab

##### At meat processing plant

final product

#### Methods of sampling (description of sampling techniques)

##### At slaughterhouse and cutting plant

Sampling at slaughterhouses for cattle is performed on a random basis from surfaces of five carcasses; the samples are taken from four specified sites of carcasses (rump, flank, brisket, neck) before chilling. Each swab is performed from area-100cm<sup>2</sup>. A non-destructive method with an abrasive sponge is used. The samples were aseptically removed and placed aseptically into a sample container and transferred to the laboratory.

##### At meat processing plant

The samples - meat products, were placed aseptically into a sample container and transferred to the laboratory.

##### At retail

The samples - final product, had to placed aseptically into a sample container and transferred to the laboratory.

#### Definition of positive finding

##### At slaughterhouse and cutting plant

presence of Salmonella spp. in 400cm<sup>2</sup>

##### At meat processing plant



presence in 25 g

#### Diagnostic/analytical methods used

At slaughterhouse and cutting plant

Bacteriological method: ISO 6579:2002

At meat processing plant

Bacteriological method: ISO 6579:2002

#### Preventive measures in place

Controls of HACCP, GMP and GHP systems

#### Control program/mechanisms

The control program/strategies in place

The competent authority takes measures according to the legislation in force and defined cases are reported into the Rapid Alert System for Food and Feed.

Recent actions taken to control the zoonoses

SVA, NIPH and CAFIA carry out monitoring and control programs in the whole food chain and take appropriate measures according to the legislation in force to ensure safe foodstuffs.

#### Measures in case of the positive findings or single cases

In the case of positive result of the investigation the competent authority takes measures to prevent spreading of the infection to the food chain.

#### Notification system in place

The positive result of the bacteriological test has to be reported to the appropriate Regional Veterinary Administration (RVA) and the RVA has oblige to take appropriate measures. The positive results are reported to the RVA from laboratories which made the tests.

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

The prevalence of the *Salmonella* spp. in pig meat and products is low and the situation is stable and similar like in previous years.

## C. Salmonella spp. in bovine meat and products thereof

### Monitoring system

#### Sampling strategy

##### At slaughterhouse and cutting plant

The slaughterhouses were selected so that the entire area of the Czech Republic was covered. Sampling at slaughterhouses for cattle is performed on a random basis from surfaces of five carcasses; the samples are taken from four specified sites of carcasses before chilling. A non-destructive method with an abrasive sponge is used (according to ISO 17604).

##### At meat processing plant

The samples are taken in the ordinary surveillance.

#### Frequency of the sampling

##### At slaughterhouse and cutting plant

Once a month

##### At meat processing plant

Sampling distributed evenly throughout the year

#### Type of specimen taken

##### At slaughterhouse and cutting plant

carcass swabs

##### At meat processing plant

final product

#### Methods of sampling (description of sampling techniques)

##### At slaughterhouse and cutting plant

Sampling at slaughterhouses for cattle is performed on a random basis from surfaces of five carcasses; the samples are taken from four specified sites of carcasses (rump, flank, brisket, neck) before chilling. Each swab is performed from area-100cm<sup>2</sup>. A non-destructive method with an abrasive sponge is used. The samples were aseptically removed and placed aseptically into a sample container and transferred to the laboratory.

##### At meat processing plant

The samples - meat product (final product), were placed aseptically into a sample container and transferred to the laboratory.

#### Definition of positive finding

##### At slaughterhouse and cutting plant

presence of Salmonella spp. in 400cm<sup>2</sup>

##### At meat processing plant

presence of salmonella in 25 g of sample

#### Diagnostic/analytical methods used

##### At slaughterhouse and cutting plant

Bacteriological method: ISO 6579:2002

At meat processing plant

Bacteriological method: ISO 6579:2002

### Preventive measures in place

control of HACCAP and GHP system

### Control program/mechanisms

The control program/strategies in place

The competent authority takes measures according to the legislation in force and defined cases are reported into the Rapid Alert System for Food and Feed.

Recent actions taken to control the zoonoses

SVA, NIPH and CAFIA carry out monitoring and control programs in the whole food chain and take appropriate measures according to the legislation in force to ensure safe foodstuffs.

### Measures in case of the positive findings or single cases

In the case of positive result of the investigation the competent authority takes measures to prevent spreading of the infection to the food chain.

### Notification system in place

The positive result of the bacteriological test has to be reported to the appropriate Regional Veterinary Administration (RVA) and the RVA has oblige to take appropriate measures. The positive results are reported to the RVA from laboratories which made the tests.

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

The prevalence of the Salmonella spp. in bovine meat and products is stable and similar like in previous years.

## D. Salmonella spp. in turkey meat and products thereof

### Monitoring system

#### Sampling strategy

##### At slaughterhouse and cutting plant

The sampling is carried out from carcasses at slaughterhouses after chilling. Monitoring take place in accordance with Directive 2003/99/EC.

##### At meat processing plant

The samples were taken in the ordinary surveillance. The final products are sampled in the end of production. There is no official National Programme for the Monitoring of Salmonella spp. at retail and processing plant. The SVA performs controls on retail and processing plant according to Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs. Samples are collected by competent authorities from all 14 regions of the Czech Republic within the year as part of an official sampling, i.e. it is performed by inspectors from the Regional Veterinary Administrations, the samples are then analysed at the State Veterinary Institutes.

#### Frequency of the sampling

##### At slaughterhouse and cutting plant

Once a month at slaughterhouse (monitoring). Sampling distributed evenly throughout the year (cutting plant).

##### At meat processing plant

Sampling distributed evenly throughout the year

#### Type of specimen taken

##### At slaughterhouse and cutting plant

neck skin samples, meat

##### At meat processing plant

final product

#### Methods of sampling (description of sampling techniques)

##### At slaughterhouse and cutting plant

Sampling at slaughterhouses for poultry is carried out from carcasses after chilling; 15 neck skin samples are taken on random from 15 broiler carcasses. A piece of approximately 10g from neck skin shall be obtained from each carcass. The neck skin samples from three carcasses are pooled before examination to form 5 x 25g final samples. The slaughterhouses were selected so that the entire area of the Czech Republic was covered, if possible.

##### At meat processing plant

the samples - one piece of final product must be placed aseptically into a sample container and transfer to the laboratory

##### At retail

#### Definition of positive finding

##### At slaughterhouse and cutting plant

presence of salmonella in 25 g of sample

##### At meat processing plant

presence of salmonella in 25 g of sample

#### Diagnostic/analytical methods used

At slaughterhouse and cutting plant

Bacteriological method: ISO 6579:2002

At meat processing plant

Bacteriological method: ISO 6579:2002

#### Preventive measures in place

creation and control of HACCP and GHP system

#### Control program/mechanisms

##### The control program/strategies in place

The competent authority takes measures according to the legislation in force and defined cases are reported into the Rapid Alert System for food and feed.

##### Recent actions taken to control the zoonoses

SVA, NIPH and CAFIA carry out monitoring and control programs in the whole food chain and take appropriate measures according to the legislation in force to ensure safe foodstuffs.

#### Measures in case of the positive findings or single cases

In the case of positive result of the investigation the competent authority takes measures to prevent spreading of the infection to the food chain.

#### Notification system in place

The positive result of the bacteriological test has to be reported to the appropriate Regional Veterinary Administration (RVA) and the RVA has to take appropriate measures. The positive results are reported to the RVA from laboratories which made the tests.

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

The prevalence of the *Salmonella* spp. in turkey meat and products is low and the situation is stable and similar like in previous years.

E. Salmonella spp. in food - Other food - food non animal origin - at retail - official food or feed controls - random sampling

Control program/mechanisms

Recent actions taken to control the zoonoses

Table Salmonella in poultry meat and products thereof

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample > meat	Unknown	Batch	25g	110	8		
Meat from broilers (Gallus gallus) - fresh - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	21	1	1	
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	75	3		
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	10	0		
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	175	0		
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	24	0		
Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	133	6		
Meat from broilers (Gallus gallus) - minced meat - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	15	0		
Meat from turkey - fresh - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	10	0		
Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	3	0		

Table Salmonella in poultry meat and products thereof

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	10	1	1	
Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring	SVA	Census	Official sampling	food sample > neck skin	Domestic	Batch	25g	665	72	2	
Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	19	0		
Meat from duck - carcase - at slaughterhouse - Surveillance	SVA	Objective sampling	Official sampling	food sample > meat	Unknown	Batch	25g	32	0		
Meat from turkey - carcase - at slaughterhouse - Monitoring	SVA	Census	Official sampling	food sample > neck skin	Domestic	Batch	25g	270	25	1	
Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	2	0		
	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 6,7:-:1,5	S. Agona	S. Derby	S. Indiana	S. Infantis	S. Kentucky	S. Kottbus	S. Montevideo	S. Newport
Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance				1		3					1
Meat from broilers (Gallus gallus) - fresh - at retail - Surveillance											
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance							2		1		



Table Salmonella in poultry meat and products thereof

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 6,7:-:1,5	S. Agona	S. Derby	S. Indiana	S. Infantis	S. Kentucky	S. Kottbus	S. Montevideo	S. Newport
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance											
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance											
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance											
Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance			1	1		1	1				1
Meat from broilers (Gallus gallus) - minced meat - intended to be eaten cooked - at processing plant - Surveillance											
Meat from turkey - fresh - at retail - Surveillance											
Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance											
Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance											
Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring			8	25	1	7	17			7	
Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - Surveillance											

Table Salmonella in poultry meat and products thereof

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 6,7:-:1,5	S. Agona	S. Derby	S. Indiana	S. Infantis	S. Kentucky	S. Kottbus	S. Montevideo	S. Newport
Meat from duck - carcase - at slaughterhouse - Surveillance											
Meat from turkey - carcase - at slaughterhouse - Monitoring					11			4			5
Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance											

  

	S. Ohio	S. Saintpaul	S. Stanley
Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance	3		
Meat from broilers (Gallus gallus) - fresh - at retail - Surveillance			
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance			
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance			
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance			

Table Salmonella in poultry meat and products thereof

	S. Ohio	S. Saintpaul	S. Stanley
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance			
Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	1		
Meat from broilers (Gallus gallus) - minced meat - intended to be eaten cooked - at processing plant - Surveillance			
Meat from turkey - fresh - at retail - Surveillance			
Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance			
Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance			
Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring	5		
Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - Surveillance			
Meat from duck - carcase - at slaughterhouse - Surveillance			
Meat from turkey - carcase - at slaughterhouse - Monitoring		3	1
Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance			

Table Salmonella in poultry meat and products thereof

Table Salmonella in milk and dairy products

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance	SVA	Objective sampling	Official sampling	food sample > milk	Domestic	Single	25ml	10	0		
Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample > milk	Domestic	Single	25ml	35	0		
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	16	0		
Cheeses made from goats' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	10	0		
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	71	0		
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	8	0		
Dairy products (excluding cheeses) - ice-cream - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	8	0		
Dairy products (excluding cheeses) - ice-cream - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	14	0		

Table Salmonella in milk and dairy products

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance		
Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - Surveillance		
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance		
Cheeses made from goats' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance		
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance		
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance		
Dairy products (excluding cheeses) - ice-cream - at processing plant - Surveillance		
Dairy products (excluding cheeses) - ice-cream - at retail - Surveillance		

Table Salmonella in other food

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Eggs - table eggs - at packing centre - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	23	0		
Fish - smoked - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	Batch	25g	2	0		
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	6	0		
Seeds, sprouted - ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	15	0		
Fruits - pre-cut - ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	1	0		
Vegetables - pre-cut - ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	14	0		
Infant formula - dried - intended for infants below 6 months - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	Single	25g	7	0		
Chocolate - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	4	0		
Confectionery products and pastes - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	396	0		
Confectionery products and pastes - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	48	0		
Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	172	1	1	
Follow-on formulae - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	Single	25g	8	0		
Fruits - pre-cut - ready-to-eat - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	3	0		

Table Salmonella in other food

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Juice - vegetable juice - pasteurised - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25ml	3	0		
Other processed food products and prepared dishes - sandwiches - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	73	0		
Other processed food products and prepared dishes - sandwiches - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	37	0		
Ready-to-eat salads - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	147	0		
Ready-to-eat salads - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	69	0		
Seeds, dried - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Imported from outside EU	Batch	25g	7	0		
Seeds, dried - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Imported from outside EU	Batch	25g	14	0		
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	35	0		
Spices and herbs - fresh - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Imported from outside EU	Batch	25g	8	0		
Vegetables - pre-cut - ready-to-eat - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	9	0		
	S. 1,4,[5],12:i:-	Salmonella spp., unspecified									
Eggs - table eggs - at packing centre - Surveillance											



Table Salmonella in other food

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Fish - smoked - at retail - Surveillance		
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance		
Seeds, sprouted - ready-to-eat - at retail - Surveillance		
Fruits - pre-cut - ready-to-eat - at retail - Surveillance		
Vegetables - pre-cut - ready-to-eat - at retail - Surveillance		
Infant formula - dried - intended for infants below 6 months - at retail - Surveillance		
Chocolate - at processing plant - Surveillance		
Confectionery products and pastes - at processing plant - Surveillance		
Confectionery products and pastes - at retail - Surveillance		
Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance		
Follow-on formulae - at retail - Surveillance		
Fruits - pre-cut - ready-to-eat - at processing plant - Surveillance		
Juice - vegetable juice - pasteurised - at processing plant - Surveillance		

Table Salmonella in other food

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Other processed food products and prepared dishes - sandwiches - at processing plant - Surveillance		
Other processed food products and prepared dishes - sandwiches - at retail - Surveillance		
Ready-to-eat salads - at processing plant - Surveillance		
Ready-to-eat salads - at retail - Surveillance		
Seeds, dried - at processing plant - Surveillance		
Seeds, dried - at retail - Surveillance		
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance		
Spices and herbs - fresh - at retail - Surveillance		
Vegetables - pre-cut - ready-to-eat - at processing plant - Surveillance		

Table Salmonella in red meat and products thereof

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Meat from pig - minced meat - intended to be eaten raw - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	8	0		
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	155	0		
Meat from pig - meat preparation - intended to be eaten raw - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	27	0		
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	1002	3	1	
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	449	0		
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	159	0		
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	74	0		
Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	6	0		
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	5	0		
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	5	0		

Table Salmonella in red meat and products thereof

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	22	0		
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	5	0		
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	88	0		
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	2	0		
Other products of animal origin - gelatin and collagen - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	169	0		
Meat from bovine animals - carcass - at slaughterhouse - Monitoring	SVA	Census	Official sampling	food sample > carcass swabs	Domestic	Batch	400cm2	4699	10		1
Meat from pig - carcass - at slaughterhouse - Monitoring	SVA	Census	Official sampling	food sample > carcass swabs	Domestic	Batch	400cm2	5941	43		9
Meat, mixed meat - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	109	0		
Meat, mixed meat - meat products - fermented sausages - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	36	0		
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	120	0		
Meat, mixed meat - minced meat - intended to be eaten cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	190	2		

Table Salmonella in red meat and products thereof

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 9,12:lv:-	S. Choleraesuis	S. Derby	S. Infantis	S. London	S. Montevideo	S. enterica subsp. enterica, rough
Meat from pig - minced meat - intended to be eaten raw - at retail - Surveillance									
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance									
Meat from pig - meat preparation - intended to be eaten raw - at retail - Surveillance									
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	2								
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance									
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance									
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance									
Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance									
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance									
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance									
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance									

Table Salmonella in red meat and products thereof

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 9,12:lv:-	S. Choleraesuis	S. Derby	S. Infantis	S. London	S. Montevideo	S. enterica subsp. enterica, rough
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance									
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance									
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance									
Other products of animal origin - gelatin and collagen - at processing plant - Surveillance									
Meat from bovine animals - carcass - at slaughterhouse - Monitoring			1		5		1	1	1
Meat from pig - carcass - at slaughterhouse - Monitoring	8			2	14	9			1
Meat, mixed meat - meat products - cooked, ready-to-eat - at processing plant - Surveillance									
Meat, mixed meat - meat products - fermented sausages - at processing plant - Surveillance									
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance									
Meat, mixed meat - minced meat - intended to be eaten cooked - at processing plant - Surveillance					2				

Table Salmonella in red meat and products thereof

## 2.1.3 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)

The sampling strategy was in accordance with Regulation (EC) No 2160/2003 of the European Parliament and the Council and Commission Regulation (EU) 200/2010.

##### 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  
4 weeks

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

##### 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  
Faeces

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

##### Methods of sampling (description of sampling techniques)

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

Samples from internal wall of transport boxes, 10 swabs from each delivery. All fallen chicks (max. 60) were tested as well.

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

Pooled samples from faeces (each weighing not less than 1 g) with regard on the number of birds in the building: 250 - 349 birds 200 samples, 350 - 449 birds 220 samples, 450 - 799 birds 250 samples, 800 - 999 birds 260 samples, 1000 and more birds 300 samples. Faeces may be pooled for analysis up to a minimum of two pools and also the boot swabs may be pooled for analysis into a minimum of two pools and separately tested.

Breeding flocks: Production period

Pooled samples from faeces (each weighing not less than 1 g) with regard on the number of birds in the building: 250 - 349 birds 200 samples, 350 - 449 birds 220 samples, 450 - 799 birds 250 samples, 800 - 999 birds 260 samples, 1000 and more birds 300 samples. Faeces may be pooled for analysis up to a minimum of two pools and also the boot swabs may be pooled for analysis into a minimum of two pools and separately tested.

##### Case definition



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

The breeding flock is considered as infected with *Salmonella enteritidis* and *Salmonella typhimurium* when the presence of *Salmonella* is detected in official sample or when the initial positive result of operator sampling is confirmed by positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples separately analysed).

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

The breeding flock is considered as infected with *Salmonella enteritidis* and *Salmonella typhimurium* when the presence of *Salmonella* is detected in official sample or when the initial positive result of operator sampling is confirmed by positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples separately analysed).

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

The breeding flock is considered as infected with *Salmonella enteritidis* and *Salmonella typhimurium* when the presence of *Salmonella* is detected in official sample or when the initial positive result of operator sampling is confirmed by positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples separately analysed).

#### Diagnostic/analytical methods used

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

Bacteriological method: ISO 6579:2002

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

Bacteriological method: ISO 6579:2002

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

Bacteriological method: ISO 6579:2002

#### Vaccination policy

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

Vaccination against *Salmonella enteritidis* was mandatory since 1st January 2007. Before 1st January 2007 the vaccination was carry out on voluntary basis. Since 1st January 2011 vaccination against *Salmonella enteritidis* is voluntary.

#### Control program/mechanisms

The control program/strategies in place

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

Aim of the programme is to monitor, occurrence of invasive serotypes of *S. enteritidis*, *S. typhimurium* (including monophasic strains with the antigenic formula 1,4,[5],12:i:-), *S. infantis*, *S. virchow* and *S. hadar*, to take measures aimed in particular at the protection of public health, as well as health of other poultry populations and to ensure the reduction of percentage of positive breeding poultry flocks up to 1%.

Official checks at the level of poultry flocks are organized and carried out by the relevant Regional Veterinary Administrations (RVA), which also take measures in the case of positive results.

Sampling in poultry flocks is carried out by farmers or private veterinarians. Official confirmation samples

are taken and sent to the laboratory examination by official veterinarians from the relevant RVA.

Legal basis of the programme

The programme has been approved by the Commission.

Legal basis of the programme represent the following pieces of legislation:

- a) Regulation (EC) No 2160/2003 of the European Parliament and of the Council of 17 November 2003 on the control of salmonella and other specified food-borne zoonotic agents, on the basis of which must Member States draw up national programmes for control of salmonellae.
- b) Commission Regulation (EU) No 200/2010 of 10 March 2010 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of salmonella serotypes in adult breeding flocks of *Gallus gallus* and amending Regulation (EC) No 2160/2003;
- c) Commission Regulation (EU) No 517/2011 of 25 May 2011 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Union target for the reduction of the prevalence of certain *Salmonella* serotypes in laying hens of *Gallus gallus* and amending Regulation (EC) No 2160/2003 and Commission Regulation (EU) No 200/2010;
- d) Act No 166/1999 concerning veterinary care and amending certain related laws (Veterinary Act), as amended.
- e) Decree of the Ministry of Agriculture No 356/2004 concerning monitoring of zoonoses and zoonotic agents and amending Decree No 299/2003 concerning measures for prevention and eradication of contagious diseases and diseases communicable from animals to man.

## Measures in case of the positive findings or single cases

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

- a) Measures taken following the detection of *S. enteritidis* and/or *S. typhimurium* in faecal samples taken by a farmer:

In order to exclude false - positive initial results from the samples taken by operator, the relevant RVA carried out official sampling after positive result in samples taken by operator. Sampling is carried out according to Annex 1, 4 (b)(i) of Commission Regulation No 1237/2007, amending Regulation EC No 2160/2003 of the European Parliament and of the Council and Decision 2006/696/EC and it is based on the technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (seven samples); all samples of faeces and dust must be analysed separately.

Pending the completion of the confirmatory examination, the RVA shall impose at least the following measures:

- a) bacteriological analysis of feeds and water, if necessary, for the detection *Salmonella* spp.;
- b) in the case of a positive result of the detection of *S. enteritidis* and/or *S. typhimurium*, hatching eggs shall be suspended pending the completion of the confirmatory analyses;
- c) a thorough mechanical cleansing and disinfection of the house, as well as other premises (e.g. stores of feeds and litter), shall be performed. A thorough mechanical cleansing of halls and technologies, followed by disinfection and safe disposal of faeces or litter shall be performed on completion of each production cycle.

In the case of a negative result of the confirmatory examination the flock shall be considered negative.

- b) Measures taken in the case of positive official samples and positive confirmatory examinations for *S. enteritidis* and/or *S. typhimurium*:

The RVA shall perform an epidemiological investigation in the holding, aimed at the detection of the possible source of the infection and shall impose at least that:

- a) Bacteriological examination of feeds and water for the detection *Salmonella* spp. is performed, if necessary;
- b) All birds, including day-old chicks, in the positive flock must be slaughtered or destroyed so as to reduce

as much as possible the risk of Salmonella spreading. Slaughtering must be carried out in accordance with Community legislation on food hygiene. By-products derived from such birds and not intended for human consumption, must be disposed in accordance with Regulation (EC) of the European Parliament and of the Council No 1069/2009 laying down health rules concerning animal by-products not intended for human consumption;

c) Non-incubated eggs must be destroyed;

d) Where eggs for hatching are still present in a hatchery, they must be destroyed or treated in accordance with Regulation (EC) of the European Parliament and of the Council No 1069/2009;

e) After slaughtering or destruction of birds from infected flocks, a thorough cleansing and disinfection, as well as disposal of faeces or litter, must be performed in accordance with the instructions of the relevant RVA;

f) The relevant RVA performs the supervision on the efficacy of the disinfection carried out by the farmer; the checks on the efficacy of the disinfection shall be performed by means of bacteriological testing of swabs, in accordance with the method specified by the NRL;

g) All other flocks at the holding are officially sampled.

### Notification system in place

Notification system is laid down by the Act No 166/1999 of 13 July 1999 on veterinary care and amending certain related laws (Veterinary Act), as amended.

## B. Salmonella spp. in Gallus Gallus - broiler flocks

### Monitoring system

#### Sampling strategy

##### Broiler flocks

Sampling strategy and the aim of the programme is in compliance with the Regulation (EC) No 2160/2003 of the European Parliament and of the Council.

The aim of the programme is to reduce the percentage of flocks of broilers remaining positive of *Salmonella enteritidis* and *Salmonella typhimurium* (including monophasic strains with the antigenic formula 1,4,[5],12:i:-) to 1 %.

The aim of the national programme is established in accordance with the Community target pursuant to Article 4(1) of Regulation (EC) No 2160/2003 aimed at reduction of the prevalence of *Salmonella enteritidis* and *Salmonella typhimurium* in broilers as specified by Commission Regulation (EU) No 200/2012. The epidemiology unit for the control programme is flock of poultry as defined in Article 2 (3b) of Regulation EC 2160/2003.

Monophasic *Salmonella typhimurium*, serotypes with the antigenic formula 1,4,[5],12:i:- is included in the programme in line with the Union target.

#### Frequency of the sampling

Broiler flocks: Before slaughter at farm

3 weeks prior to slaughter

#### Type of specimen taken

Broiler flocks: Before slaughter at farm

Faeces

#### Methods of sampling (description of sampling techniques)

Broiler flocks: Before slaughter at farm

Two pairs of boot/socks swabs were taken. For free range flocks of broilers, samples were collected in the area inside the house. All boot/sock swabs were pooled into one sample. In flocks with less than 100 broilers, where it is not possible to use boot/sock swabs as access to the houses is not possible, they may be replaced by hand drag swabs, where the boot swabs or socks are worn over gloved hands and rubbed over surfaces contaminated with fresh faeces. Before putting on the boot/sock swabs, their surface was moistened with maximum recovery diluents (MRD: 0.8 % sodium chloride, 0.1 % peptone in sterile deionised water), or sterile water or any other diluent approved by the National Reference Laboratory at the SVI in Prague. All sections in a house are represented in the sampling in a proportionate way. Each pair must cover about 50 % of the area of the house. On completion of sampling the boot/sock swabs were carefully removed so as not to dislodge adherent material. Boot swabs were inverted to retain material. They were placed in a bag or pot and labelled.

The RVA perform training of operators and/or other persons designated by farmers to guarantee the correct application of the sampling protocol.

#### Case definition

Broiler flocks: Before slaughter at farm

A flock of broilers is considered positive for the purpose of verifying the achievement of the Community target, where the presence of *Salmonella enteritidis* and/or *Salmonella typhimurium* (other than vaccine strains) was detected in the flock at any occasion.

#### Diagnostic/analytical methods used

Broiler flocks: Before slaughter at farm

Bacteriological method: ISO 6579:2002

## Vaccination policy

### Broiler flocks

Vaccination is voluntary and in practice is not performed in broiler flocks. Breeding flocks in meat production line are vaccinated voluntarily against *S. enteritidis*.

## Control program/mechanisms

### The control program/strategies in place

#### Broiler flocks

The main objectives of the programme are monitoring and control of zoonotic *Salmonella* serotype (*S. enteritidis*, *S. typhimurium*) in the poultry broiler flocks.

Frequency and status of sampling in the programme are in accordance with sampling requirements laid down in part B of Annex II to Regulation (EC) No 2160/2003 of the European Parliament and of the Council and specified by Commission Regulation (EU) No 200/2012 of 8 March 2012 concerning a Union target for the reduction of *Salmonella enteritidis* and *Salmonella typhimurium* in flocks of broilers.

Sampling in poultry flocks is carried out by an operator and/or by a private veterinarian. Only named and approved laboratories of the State Veterinary Institutes carry out the examination and validated methods of bacteriological examination are used. The testing (samples taken by operators and official veterinarians) is performed in the NRL in SVI Prague and in SVIs in Jihlava, Olomouc and Česká Budějovice. The using of the appropriate methods is co-ordinated and under the control of the National Reference Laboratory for salmonella at the SVI in Prague. The NRL for *Salmonella* will be team up with CRL.

The central authority competent for supervising and coordinating all activities in veterinary care is the State Veterinary Administration, which performs its powers at the whole territory of the Czech Republic (Â§ 47, Veterinary Act No 166/1999 Col. of Acts). SVA of the CR coordinates the activities of Regional Veterinary Administrations and lay down Methodology for Animal Health Control.

#### Legal basis

- Commission regulation (EC) NO 2160/2003 of 17 November 2003 on the control of salmonella and other specified food-borne zoonotic agents;
- Commission regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry;
- Commission Regulation (EU) No 200/2012 of 8 March 2012 concerning a Union target for the reduction of *Salmonella enteritidis* and *Salmonella typhimurium* in flocks of broilers, as provided for in Regulation (EC) No 2160/2003 of the European Parliament and of the Council;
- Commission Regulation (EU) No 200/2010 of 10 March 2010 implementing Regulation (EC) No. 2160/2003 as regards a Community target for the reduction of the prevalence of salmonella serotypes in adult breeding flocks of *Gallus gallus* and amending Regulation (EC) No 2160/2003;
- Commission Regulation (EU) No 517/2011 of 25 May 2011 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Union target for the reduction of the prevalence of certain *Salmonella* serotypes in laying hens of *Gallus gallus* and amending Regulation (EC) No 2160/2003 and Commission Regulation (EU) No 200/2010;
- Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs;
- Commission Regulation (EC) No 1091/2005/ES of 12 July 2005 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella;

- Regulation (EC) No 853/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs;
- Act No 166/1999 concerning veterinary care and amending certain related laws (Veterinary Act), as amended;
- Act No 154/2000 concerning pedigree breeding, breeding and registration of farm animals and amending certain related laws (Breeding Act), as amended;
- Act No 146/2002 concerning the Czech Agriculture and Food Inspection Authority and amending certain related laws, as amended;
- Act No 20/1966 concerning public health care, as amended;
- Decree No 356/2004 concerning the monitoring of zoonoses and zoonotic agents and amending Decree No 299/2003 concerning measures for prevention and eradication of contagious diseases and diseases communicable from animals to man;
- Decree No 296/2003 concerning animal health and its protection, animal movement and transportation and authorisation and professional qualification for performance of certain professional veterinary activities, as amended;
- Decree No 136/2004 specifying in detail identification and registration of animals, registration of holdings and persons specified by Breeding Act.

## Measures in case of the positive findings or single cases

### Broiler flocks: Before slaughter at farm

- Farmer shall record the result into the "Food Chain Information" at the dispatch of broilers to a slaughterhouse.
- Farmer shall perform a check on efficacy of preventive measures aimed at bio-safety of the holding.
- Farmer shall take samples of feedingstuffs from bins; the samples shall be sent for laboratory examination for the detection of *Salmonella* spp.
- A thorough mechanical cleansing, disinfection, disinsectisation and rat extermination shall be performed following dispatch of broilers to a slaughterhouse; as well as safe disposal of faeces or litter.
- Farmer shall take swab samples for laboratory check on efficacy of disinfection.
- New birds may be introduced only upon laboratory confirmation of efficacy of disinfection.

## Notification system in place

Notification system is lay down by the Act No 166/1999 of 13 July 1999 on veterinary care and amending certain related laws (Veterinary Act), as amended.

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

### Monitoring system

#### Sampling strategy

##### Laying hens flocks

The sampling strategy was in accordance Regulation (EC) No 2160/2003 of the European Parliament and the Council.

Salmonella Control Programme (SCP) was started From 1 st January 2007. SCP was imposed one year earlier than is set up in EU legislation. The aim of the SCP is reduction (including monophasic strains with the antigenic formula 1,4,[5],12:i:-) to 2 % or less and to ensure that adequate and effective measures for monitoring and control of salmonella infections are taken in laying flocks. The reduction of the prevalence of the Salmonella in laying hens flocks is focused on achievement of the targets laying down in the Commission Regulation (EU) No 517/2011.

#### Frequency of the sampling

##### Laying hens: Day-old chicks

Every flock is sampled

##### Laying hens: Rearing period

2 weeks prior to moving

##### Laying hens: Production period

15 weeks

#### Type of specimen taken

##### Laying hens: Day-old chicks

Internal linings of delivery boxes

##### Laying hens: Rearing period

Faeces

##### Laying hens: Production period

Faeces

#### Methods of sampling (description of sampling techniques)

##### Laying hens: Day-old chicks

Samples from internal wall of transport boxes, 10 swabs from each delivery. All fallen chicks (max. 60) were tested as well.

##### Laying hens: Rearing period

a) in cage flocks, 2 × 150 grams of naturally pooled faeces were taken from all belts or scrapers in the house after running the manure removal system; however, in the case of step cage houses without scrapers or belts 2 × 150 grams of mixed fresh faeces must be collected from 60 different places beneath the cages in the dropping pits;

b) in barn or free-range houses, two pairs of boot swabs or socks were taken, without changing overboots between boot swabs.

In the case of official sampling, 3 × 150 grams of naturally pooled faeces in cage flocks or 3 pairs of boot swabs in barn or free-range houses shall be collected. Individual samples must be analysed at the laboratory separately.

#### Laying hens: Production period

a) in cage flocks, 2 × 150 grams of naturally pooled faeces were taken from all belts or scrapers in the house after running the manure removal system; however, in the case of step cage houses without scrapers or belts 2 × 150 grams of mixed fresh faeces must be collected from 60 different places beneath the cages in the dropping pits;

b) in barn or free-range houses, two pairs of boot swabs or socks were taken, without changing overboots between boot swabs.

In the case of official sampling, 3 × 150 grams of naturally pooled faeces in cage flocks or 3 pairs of boot swabs in barn or free-range houses shall be collected. Individual samples must be analysed at the laboratory separately.

#### Case definition

##### Laying hens: Day-old chicks

The flock of laying hens is considered positive for *S. enteritidis* or *S. typhimurium* in the case of positive result of official sampling or in the case of positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples analysed separately).

##### Laying hens: Rearing period

The flock of laying hens is considered positive for *S. enteritidis* or *S. typhimurium* in the case of positive result of official sampling or in the case of positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples analysed separately).

##### Laying hens: Production period

The flock of laying hens is considered positive for *S. enteritidis* or *S. typhimurium* in the case of positive result of official sampling or in the case of positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples analysed separately).

#### Diagnostic/analytical methods used

##### Laying hens: Day-old chicks

Bacteriological method: ISO 6579:2002

##### Laying hens: Rearing period

Bacteriological method: ISO 6579:2002

##### Laying hens: Production period

Bacteriological method: ISO 6579:2002

#### Vaccination policy

##### Laying hens flocks

Vaccination against *Salmonella enteritidis* in laying hens flocks producing table eggs is mandatory since 1st January 2007.

#### Control program/mechanisms



## The control program/strategies in place

### Laying hens flocks

The main objectives of the programme are monitoring and control of zoonotic Salmonella serotype (S. enteritidis, S. typhimurium including monophasic strains with the antigenic formula 1,4,[5],12:i:-) in the flocks of laying hens. The aim of programme is to decrease the number of positive adult laying hen flocks remaining positive of Salmonella enteritidis and/or Salmonella typhimurium (including monophasic strains with the antigenic formula 1,4,[5],12:i:-) to 2 % or less. The aim of the programme is in compliance with the Commission Regulation (EU) No 517/2011.

The central authority competent for supervising and coordinating all activities in veterinary care is the State Veterinary Administration, which performs its powers at the whole territory of the Czech Republic (Â§ 47, Veterinary Act No 166/1999 Col. of Acts). SVA of the CR coordinates the activities of Regional Veterinary Administrations and lay down Methodology for Animal Health Control.

#### Legal basis

- a) Regulation (EC) No 2160/2003 of the European Parliament and of the Council of 17 November 2003 on the control of salmonella and other specified food-borne zoonotic agents;
- b) Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry;
- c) Commission Regulation (EU) No 517/2011 of 25 May 2011 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Union target for the reduction of the prevalence of certain Salmonella serotypes in laying hens of Gallus gallus and amending Regulation (EC) No 2160/2003 and Commission Regulation (EU) No 200/2010.
- d) Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs;
- e) Commission Regulation (EC) No 1091/2005 of 12 July 2005 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella;
- f) Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs;
- g) Directive 2003/99/EC of the European Parliament and of the Council of 17 November 2003 on the monitoring of zoonoses and zoonotic agents, amending Council Decision 90/424/EEC and repealing Council Directive 92/117/EEC;
- h) Act No 166/1999 concerning veterinary care and amending certain related laws, as amended (Veterinary Act);
- i) Act No 154/2000 concerning pedigree breeding, breeding and registration of farm animals and amending certain related laws, as amended (Breeding Act);
- j) Act No 146/2002 concerning the Czech Agriculture and Food Inspection Authority and amending certain related laws, as amended;
- k) Act No 20/1966 concerning public health care, as amended;
- l) Decree No 356/2004 concerning the monitoring of zoonoses and zoonotic agents and amending Decree No 299/2003 concerning measures for prevention and eradication of contagious diseases and diseases communicable from animals to man;
- m) Decree No 296/2003 concerning animal health and its protection, animal movement and transportation and authorization and professional qualification for performance of certain professional veterinary activities;
- n) Decree No 136/2004 laying down details for identification of animals and their registration and registration of holdings and person designated by Breeding Act.

## Measures in case of the positive findings or single cases

### Laying hens flocks

Measures taken in the case of salmonella detection (*S. enteritidis* and/or *S. typhimurium*) in faeces:

The relevant RVA shall order at least the following measures:

1) Table eggs coming from infected flocks may be used for human consumption only if treated in a manner that guarantees the destruction of all *Salmonella* serotypes with public health significance in accordance with Community legislation on food hygiene;

Eggs shall be:

(a) considered as Class B eggs as defined in Article 2(4) of Commission Regulation (EC) No 557/2007 laying down detailed rules for implementing Council Regulation (EC) No 1028/2006 on marketing standards for eggs (1);

(b) Marked with the indication referred to in Article 10 of Commission Regulation (EC) No 557/2007 which clearly distinguishes them from Class A eggs prior to being placed on the market.

(c) Prohibited access to packaging centres unless the competent authority is satisfied with the measures to pre-vent possible cross-contamination of eggs from other flocks.

2) In order to exclude false - positive initial results from the samples taken by operator, the relevant RVA carried out official sampling after positive result in samples taken by operator. Sampling is carried out according to Annex 1, 4 (b)(i) of Commission Regulation No 1237/2007, amending Regulation EC No 2160/2003 of the European Parliament and of the Council and Decision 2006/696/EC and it is based on the technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (seven samples); all samples of faeces and dust must be analysed separately.

Measures taken in the case of confirmation of the infection:

- In the case of positive result of the confirmatory examination, the flock in question is considered infected. Safe disposal of poultry showing clinical signs is performed; in other poultry targeted effective treatment, including use of probiotics or acidification of water and feeds, is recommended;

- When birds from infected flocks are slaughtered or destroyed, steps must be taken to reduce the risk of spreading zoonoses as far as possible. Slaughtering is carried out in accordance with Community legislation on food hygiene. Products derived from such birds may be placed on the market for human consumption in accordance with Community legislation on food hygiene. If not destined for human consumption, such products must be used or disposed of in accordance with Regulation (EC) No 1069/2009;

- Thorough cleansing and disinfection, including safe removal of faeces or litter must be performed after slaughtering or killing of poultry from infected flocks;

- Table eggs coming from infected flocks may be used for human consumption only after their in a way ensuring that they are completely free of all *salmonella* serotypes of public health relevance, in accordance with food hygiene legislation;

- Performance of further bacteriological examination of feed and water for the presence of *Salmonella* spp., if necessary;

### Notification system in place

Notification system is lay down by the Act No 166/1999 of 13 July 1999 on veterinary care and amending certain related laws (Veterinary Act), as amended.

## D. 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)

The sampling strategy is in accordance with Regulation (EC) No 2160/2003 of the European Parliament and the Council. Frequency and status of sampling is in compliance with Commission Regulation (EC) No 646/2007 and in compliance with Commission Regulation (EC) No 584/2008.

Meat production flocks

The sampling strategy is in accordance with Regulation (EC) No 2160/2003 of the European Parliament and the Council. Frequency and status of sampling is in compliance with Commission Regulation (EC) No 646/2007 and in compliance with Commission Regulation (EC) No 584/2008.

#### 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

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

Faeces

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

Faeces

Meat production flocks: Before slaughter at farm

Faeces

#### Methods of sampling (description of sampling techniques)

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

10 swabs from internal surfaces of at least 10 boxes or baskets used for the transport of day-old turkeys.

The swabs shall be taken after the arrival of the turkeys to the holding, prior to their unloading. All swabs must be pooled into one sample. When the turkeys come from two different hatcheries, a separate pooled sample shall be prepared for each hatchery. When the turkeys are delivered within several days, samples are taken each day according to the above mentioned scheme;

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

Samples shall be taken in accordance with one of the following methods:

A. Pooled faecal samples:

Separate samples of fresh faeces each weighing not less than 1 g shall be taken at random from the

number of sites indicated in the following table:

Number of birds in the flock	Number of faecal samples to be taken from the flock
250 – 349	200
350 – 449	220
450 – 799	250
800 – 999	260
1 000 and more	300

Faeces may be pooled for analysis up to a minimum of two pools.

or:

B. Five pairs of boot swabs:

Boot swabs used shall be sufficiently absorptive to soak up moisture. Tubegauze "socks" are also acceptable. The surface of the boot swab shall be moistened using appropriate diluent (e.g. 0.8 % sodium chloride, 0.1 % peptone in sterile deionised water, or sterile water). Walking around shall be done in a manner which will sample representatively all parts of the sector, including littered and slatted areas when slats are safe to walk on. All separate pens within a house shall be included in the sampling. On completion of sampling, boot swabs must be removed carefully so as not to dislodge adherent material. The boot swabs may be pooled for analysis into a minimum of two pools.

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

Samples shall be taken in accordance with one of the following methods:

A. Pooled faecal samples:

Separate samples of fresh faeces each weighing not less than 1 g shall be taken at random from the number of sites indicated in the following table:

Number of birds in the flock	Number of faecal samples to be taken from the flock
250 – 349	200
350 – 449	220
450 – 799	250
800 – 999	260
1 000 and more	300

Faeces may be pooled for analysis up to a minimum of two pools.

or:

B. Five pairs of boot swabs:

Boot swabs used shall be sufficiently absorptive to soak up moisture. Tubegauze "socks" are also acceptable. The surface of the boot swab shall be moistened using appropriate diluent (e.g. 0.8 % sodium chloride, 0.1 % peptone in sterile deionised water, or sterile water). Walking around shall be done in a manner which will sample representatively all parts of the sector, including littered and slatted areas when slats are safe to walk on. All separate pens within a house shall be included in the sampling. On completion of sampling, boot swabs must be removed carefully so as not to dislodge adherent material. The boot swabs may be pooled for analysis into a minimum of two pools.

Meat production flocks: Before slaughter at farm

-Two pairs of boot/socks swabs shall be taken. For free range flocks of turkeys, samples shall only be collected in the area inside the house. All boot/sock swabs must be pooled into one sample.

-In flocks with less than 100 turkeys, where it is not possible to use boot/sock swabs as access to the houses is not possible, they may be replaced by hand drag swabs, where the boot swabs or socks are

worn over gloved hands and rubbed over surfaces contaminated with fresh faeces.

-Before putting on the boot/sock swabs, their surface shall be moistened with maximum recovery diluents (MRD: 0.8 % sodium chloride, 0.1 % peptone in sterile deionised water), or sterile water or any other diluent approved by the National Reference Laboratory at the SVI in Prague.

-The use of water containing antimicrobials or additional disinfectants shall be prohibited. The recommended way to moisten boot swabs shall be to pour the liquid inside before putting them on.

Alternatively, boot swabs or socks may be autoclaved with diluents within autoclave bags or jars before use. Diluents may also be applied after boots are put on using a spray or wash bottle.

-It shall be ensured that all sections in a house are represented in the sampling in a proportionate way. Each pair should cover about 50 % of the area of the house. On completion of sampling the boot/sock swabs shall be carefully removed so as not to dislodge adherent material. Boot swabs may be inverted to retain material. They shall be placed in a bag or pot and labelled.

-The RVA shall perform training of farmers and/or other persons designated by farmers to guarantee the correct application of the sampling protocol.

## Case definition

A flock of turkeys is considered positive for the purpose of verifying the achievement of the Community target, where the presence of *Salmonella enteritidis* and/or *Salmonella typhimurium* (including monophasic strains with the antigenic formula 1,4,[5],12:i:-) was detected in the flock at any occasion.

Positive flocks are recorded only once, irrespective of the number of sampling and testing performed. The salmonella prevalence is calculated separately for flocks of fattening turkeys and flocks of adult breeding turkeys.

## Monitoring system

### Case definition

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

The breeding turkey flock is considered as infected with *Salmonella enteritidis* and *Salmonella typhimurium* (including monophasic strains with the antigenic formula 1,4,[5],12:i:-) when the presence of targeted serotypes is detected in official sample or when the initial positive result of operator sampling is confirmed by positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples separately analysed).

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

The breeding flock is considered as infected with *Salmonella enteritidis* and *Salmonella typhimurium* (including monophasic strains with the antigenic formula 1,4,[5],12:i:-) when the presence of targeted serotypes is detected in official sample or when the initial positive result of operator sampling is confirmed by positive result of official sample taken in order to exclude the false positive result of operator sampling. The confirmation method is based on technical specifications referred to in Article 5 of Commission Decision 2004/665/EC (5 pooled faeces samples and 2 pooled dust samples separately analysed).

Meat production flocks: Before slaughter at farm

A flock of turkeys is considered positive for the purpose of verifying the achievement of the Community target, where the presence of *Salmonella enteritidis* and/or *Salmonella typhimurium* (including monophasic strains with the antigenic formula 1,4,[5],12:i:-) was detected in the flock at any occasion.

### Diagnostic/analytical methods used

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

Bacteriological method: ISO 6579:2002

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

Bacteriological method: ISO 6579:2002

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

Bacteriological method: ISO 6579:2002

Meat production flocks: Day-old chicks

Bacteriological method: ISO 6579:2002

Meat production flocks: Before slaughter at farm

Bacteriological method: ISO 6579:2002

## Vaccination policy

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

Vaccination of breeding and fattening turkeys against salmonella is voluntary.

## Control program/mechanisms

The control program/strategies in place

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

The programme is applied since 1 January 2010. The programme is applied within the entire territory of the Czech Republic. The programme is carrying out in accordance with Regulation of the European Parliament and of the Council (EC) 2160/2003 and with approved Salmonella Control Programme. The competent authority responsible for performing of the programme is the State Veterinary Administration of the Czech Republic. Sampling in poultry flocks is carried out by an operator or by a private veterinarian. Only named and approved laboratories of the State Veterinary Institutes carry out the examination and validated methods of bacteriological examination are used. Official checks at the level of poultry flocks are organised and carried out by the relevant Regional Veterinary Administration.

The national salmonella control programme is in accordance with:

Commission regulation (EC) NO 2160/2003 of 17 November 2003 on the control of salmonella and other specified food-borne zoonotic agents;

Commission regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry;

Commission Regulation (EC) No 584/2008 of 20 June 2008 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of Salmonella enteritidis and Salmonella typhimurium in turkeys;

Commission Regulation (EU) No 200/2010 of 10 March 2010 implementing Regulation (EC) No. 2160/2003 as regards a Community target for the reduction of the prevalence of salmonella serotypes in adult breeding flocks of Gallus gallus and amending Regulation (EC) No 2160/2003;

Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs;

Commission Regulation (EC) No 1091/2005/ES of 12 July 2005 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella;

Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs;

Act No 166/1999 concerning veterinary care and amending certain related laws (Veterinary Act), as amended;

Act No 154/2000 concerning pedigree breeding, breeding and registration of farm animals and amending certain related laws (Breeding Act), as amended;

Act No 146/2002 concerning the Czech Agriculture and Food Inspection Authority and amending certain related laws, as amended;

Act No 20/1966 concerning public health care, as amended;

Decree No 356/2004 concerning the monitoring of zoonoses and zoonotic agents and amending Decree No 299/2003 concerning measures for prevention and eradication of contagious diseases and diseases communicable from animals to man;

Decree No 296/2003 concerning animal health and its protection, animal movement and transportation and authorisation and professional qualification for performance of certain professional veterinary activities, as amended;

Decree No 136/2004 specifying in detail identification and registration of animals, registration of holdings and persons specified by Breeding Act.

#### Meat production flocks

The programme is applied since 1 January 2010. The programme is applied within the entire territory of the Czech Republic. The programme is carrying out in accordance with Regulation of the European Parliament and of the Council (EC) 2160/2003 and with approved Salmonella Control Programme. The competent authority responsible for performing of the programme is the State Veterinary Administration of the Czech Republic. Sampling in poultry flocks is carried out by an operator or by a private veterinarian. Only named and approved laboratories of the State Veterinary Institutes carry out the examination and validated methods of bacteriological examination are used. Official checks at the level of poultry flocks are organised and carried out by the relevant Regional Veterinary Administration.

The national salmonella control programme is in accordance with:

Commission regulation (EC) No 2160/2003 of 17 November 2003 on the control of salmonella and other specified food-borne zoonotic agents;

Commission regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry;

Commission Regulation (EC) No 584/2008 of 20 June 2008 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of Salmonella enteritidis and Salmonella typhimurium in turkeys;

Commission Regulation (EU) No 200/2010 of 10 March 2010 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of salmonella serotypes in adult breeding flocks of Gallus gallus and amending Regulation (EC) No 2160/2003;

Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs;

Commission Regulation (EC) No 1091/2005/ES of 12 July 2005 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella;

Regulation (EC) No 852/2004 of the European Parliament and of the Council of 29 April 2004 on the hygiene of foodstuffs;

Act No 166/1999 concerning veterinary care and amending certain related laws (Veterinary Act), as amended;

Act No 154/2000 concerning pedigree breeding, breeding and registration of farm animals and amending certain related laws (Breeding Act), as amended;

Act No 146/2002 concerning the Czech Agriculture and Food Inspection Authority and amending certain related laws, as amended;

Act No 20/1966 concerning public health care, as amended;

Decree No 356/2004 concerning the monitoring of zoonoses and zoonotic agents and amending Decree No 299/2003 concerning measures for prevention and eradication of contagious diseases and diseases communicable from animals to man;

Decree No 296/2003 concerning animal health and its protection, animal movement and transportation and authorisation and professional qualification for performance of certain professional veterinary activities, as amended;

Decree No 136/2004 specifying in detail identification and registration of animals, registration of holdings and persons specified by Breeding Act.

## Measures in case of the positive findings or single cases

Breeding flocks:

a) Measures taken following the detection of *S. enteritidis* and/or *S. typhimurium* in faecal samples taken by a farmer:

In the case of the presence of monitored salmonella serovars (*S. enteritidis*, *S. typhimurium*) in faecal samples taken by a farmer, an official sampling shall be performed by an official veterinarian from the RVA in each positive flock, in order to confirm the results. Faecal and dust samples shall be taken in accordance with Regulation (EC) No 584/2008 and bacteriological analyses thereof shall be performed at the NRL for salmonellae at the SVI in Prague.

The confirmatory sampling shall be performed as follows:

5 pairs of boot swabs (1 pair = 1 sample);

2 dust samples collected from multiple places throughout the house (2 x 250 ml)

A sub-sample, weighting 25 g and prepared from each faecal and dust sample, shall be used for the analysis; all samples shall be analysed separately.

Pending the completion of the confirmatory examination, the RVA shall impose at least the following measures:

1. bacteriological analysis of feeds and water, if necessary, for the detection *Salmonella* spp.;
2. in the case of a positive result of the detection of *S. enteritidis* and/or *S. typhimurium*, hatching eggs shall be suspended pending the completion of the confirmatory analyses;
3. a thorough mechanical cleansing and disinfection of the house, as well as other premises (e.g. stores of feeds and litter), shall be performed. A thorough mechanical cleansing of halls and technologies, followed by disinfection and safe disposal of faeces or litter shall be performed on completion of each production cycle.

In the case of a negative result of the confirmatory examination, the RVA shall lift the measures and the flock shall be considered negative.

b) Measures taken in the case of positive official samples and positive confirmatory examinations for *S. enteritidis* and/or *S. typhimurium*:

The RVA shall perform an epidemiological investigation in the holding, aimed at the detection of the possible source of the infection and shall impose at least that:

1. further bacteriological examination of feeds for the detection *Salmonella* spp. is performed, if necessary;
2. all birds, including day-old turkeys, in the positive flock must be slaughtered or destroyed so as to reduce as much as possible the risk of spreading salmonella. Slaughtering must be carried out in accordance with Community legislation on food hygiene. By-products derived from such birds and not intended for human consumption must be disposed of in accordance with Regulation (EC) of the European Parliament and of the Council No 1069/2009 laying down health rules concerning animal by-products not intended for human consumption;
3. non-incubated eggs must be destroyed;
4. where eggs for hatching are still present in a hatchery, they must be destroyed or treated in accordance with Regulation (EC) of the European Parliament and of the Council No 1069/2009;
5. after slaughtering or destruction of birds from infected flocks, a thorough cleansing and disinfection, as



well as disposal of faeces or litter, must be performed in accordance with the instructions of the relevant RVA;

6.the relevant RVA performs the supervision on the efficacy of the disinfection carried out by the farmer; the checks on the efficacy of the disinfection shall be performed by means of bacteriological testing of swabs, in accordance with the method specified by the NRL.

Fattening flocks:

- Farmer shall record the result into the "Food Chain Information" at the dispatch of turkeys to a slaughterhouse.

- Farmer shall perform a check on efficacy of preventive measures aimed at bio-safety of the holding.

- Farmer shall take samples of feedingstuffs from bins; the samples shall be sent for laboratory examination for the detection of *Salmonella* spp.

- A thorough mechanical cleansing, disinfection, disinsectisation and rat extermination shall be performed following dispatch of turkeys to a slaughterhouse; as well as safe disposal of faeces or litter.

- Farmer shall take swab samples for laboratory check on efficacy of disinfection.

- New birds may be introduced only upon confirmation of efficacy of disinfection.

### Notification system in place

Notification system is lay down by the Act No 166/1999 of 13 July 1999 on veterinary care and amending certain related laws (Veterinary Act), as amended.

Table Salmonella in breeding flocks of Gallus gallus

	No of flocks under control programme	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Target Verification	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis
Gallus gallus (fowl) - breeding flocks, unspecified - adult - Control and eradication programmes <sup>1)</sup>	642	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	642	23	7
Gallus gallus (fowl) - parent breeding flocks for egg production line - day-old chicks - Control and eradication programmes	4	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	4	0	
Gallus gallus (fowl) - parent breeding flocks for egg production line - during rearing period - Control and eradication programmes	16	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	16	0	
Gallus gallus (fowl) - parent breeding flocks for egg production line - adult - Control and eradication programmes	23	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	23	0	
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - day-old chicks - Control and eradication programmes	0										
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - during rearing period - Control and eradication programmes	0										
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - adult - Control and eradication programmes	0										
Gallus gallus (fowl) - elite breeding flocks for egg production line - day-old chicks - Control and eradication programmes	4	NRL for Salmonella	Census	Official and industry sampling	animal sample > fleece	Domestic	yes	Flock	4	0	
Gallus gallus (fowl) - elite breeding flocks for egg production line - during rearing period - Control and eradication programmes	5	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	5	1	

Table Salmonella in breeding flocks of Gallus gallus

	No of flocks under control programme	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Target Verification	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis
Gallus gallus (fowl) - elite breeding flocks for egg production line - adult - Control and eradication programmes	7	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	7	0	
Gallus gallus (fowl) - parent breeding flocks for broiler production line - day-old chicks - Control and eradication programmes	82	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	0		
Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - Control and eradication programmes	570	NRLK for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	570	2	2
Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - Control and eradication programmes <sup>2)</sup>	603	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	603	23	7
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - day-old chicks - Control and eradication programmes	0										
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - during rearing period - Control and eradication programmes	9	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	9	0	
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - adult - Control and eradication programmes	9	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	9	0	

Table Salmonella in breeding flocks of Gallus gallus

	S. Hadar	S. Infantis	S. Typhimurium	S. Virchow	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. Derby	S. Kentucky	S. Lille	S. Ohio
Gallus gallus (fowl) - breeding flocks, unspecified - adult - Control and eradication programmes <sup>1)</sup>		1					12	1	1	1
Gallus gallus (fowl) - parent breeding flocks for egg production line - day-old chicks - Control and eradication programmes										
Gallus gallus (fowl) - parent breeding flocks for egg production line - during rearing period - Control and eradication programmes										
Gallus gallus (fowl) - parent breeding flocks for egg production line - adult - Control and eradication programmes										
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - day-old chicks - Control and eradication programmes										
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - during rearing period - Control and eradication programmes										
Gallus gallus (fowl) - grandparent breeding flocks for egg production line - adult - Control and eradication programmes										
Gallus gallus (fowl) - elite breeding flocks for egg production line - day-old chicks - Control and eradication programmes										
Gallus gallus (fowl) - elite breeding flocks for egg production line - during rearing period - Control and eradication programmes								1		

Table Salmonella in breeding flocks of Gallus gallus

	S. Hadar	S. Infantis	S. Typhimurium	S. Virchow	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. Derby	S. Kentucky	S. Lille	S. Ohio
Gallus gallus (fowl) - elite breeding flocks for egg production line - adult - Control and eradication programmes										
Gallus gallus (fowl) - parent breeding flocks for broiler production line - day-old chicks - Control and eradication programmes										
Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - Control and eradication programmes										
Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - Control and eradication programmes <sup>2)</sup>		1					12	1	1	1
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - day-old chicks - Control and eradication programmes										
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - during rearing period - Control and eradication programmes										
Gallus gallus (fowl) - grandparent breeding flocks for broiler production line - adult - Control and eradication programmes										

## Comments:

- <sup>1)</sup> The flock positive for S. Ohio was positive for S. Derby too.
- <sup>2)</sup> The flock positive for S. Ohio was positive for S. Derby too.

Table Salmonella in breeding flocks of Gallus gallus

Table Salmonella in other poultry

	No of flocks under control programme	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Target Verification	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis
Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes	137	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	137	0	0
Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes	144	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	144	0	0
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	392	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	392	8	6
Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes	0							Flock	0		
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	5145	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	5145	351	236
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	4396	NRL for Salmonella	Census	Industry sampling	animal sample > faeces	Domestic	yes	Flock	4396	250	172
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	749	NRL for Salmonella	Census	Official sampling	animal sample > faeces	Domestic	yes	Flock	749	101	64
Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes	5	NRL for Salmonella	Census	Industry sampling	animal sample > faeces	Domestic	yes	Flock	5	3	
Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes	12	NRL for Salmonella	Census	Industry sampling	animal sample > faeces	Domestic	yes	Flock	12	4	
Turkeys - breeding flocks, unspecified - adult - at farm - Control and eradication programmes	18	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	18	0	
Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	266	NRL for Salmonella	Census	Official and industry sampling	animal sample > faeces	Domestic	yes	Flock	266	20	1

Table Salmonella in other poultry

	S. Typhimurium	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. 6,7:-:1,5	S. Braenderup	S. Derby	S. Indiana	S. Infantis	S. Kentucky	S. Kottbus	S. Lille
Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes	0	0	0								
Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes	0	0	0								
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	0	0	0								
Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes											
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	0	0	6	10	1	3	4	51	9	1	8
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	0	0	1	8	1	2	2	32	4	1	6
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	0	0	5	2		1	2	19	5		2
Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes									3		
Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes									4		
Turkeys - breeding flocks, unspecified - adult - at farm - Control and eradication programmes											
Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes						1			2	1	



Table Salmonella in other poultry

	S. Mbandaka	S. Montevideo	S. Newport	S. Ohio	S. Saintpaul	S. Stanley	S. Szentes	S. Tennessee
Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes								
Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes								
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes			1					1
Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes								
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	5	2	1	9		3	2	
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	5	2	1	9		2	2	
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes						1		
Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes								
Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes								
Turkeys - breeding flocks, unspecified - adult - at farm - Control and eradication programmes								
Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes			5		1	9		

Table Salmonella in other poultry

## 2.1.4 Salmonella in feedingstuffs

Table Salmonella in compound feedingstuffs

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Compound feedingstuffs for cattle - process control - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	7	0		
Compound feedingstuffs for pigs - process control - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	21	0		
Compound feedingstuffs for poultry (non specified) - process control - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	1	0		
Compound feedingstuffs for poultry - breeders - process control - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	3	0		
Compound feedingstuffs for poultry - laying hens - process control - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	4	0		
Compound feedingstuffs for poultry - broilers - process control - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	21	0		
Compound feedingstuffs for poultry - breeders - final product - at farm - Control and eradication programmes	SVA	Suspect sampling	Official sampling	feed sample	Unknown	Batch	25g	6	0		
Compound feedingstuffs for poultry - broilers - final product - at farm - Control and eradication programmes	SVA	Suspect sampling	Official and industry sampling	feed sample	Unknown	Batch	25g	169	0		
Compound feedingstuffs for poultry - laying hens - final product - at farm - Control and eradication programmes	SVA	Suspect sampling	Official sampling	feed sample	Unknown	Batch	25g	4	0		

Table Salmonella in compound feedingstuffs

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Compound feedingstuffs for turkeys - final product - at farm - Control and eradication programmes	SVA	Suspect sampling	Official and industry sampling	feed sample	Unknown	Batch	25g	1	0		
	S. 1,4,[5],12:i:-	Salmonella spp., unspecified									
Compound feedingstuffs for cattle - process control - at feed mill - Surveillance											
Compound feedingstuffs for pigs - process control - at feed mill - Surveillance											
Compound feedingstuffs for poultry (non specified) - process control - at feed mill - Surveillance											
Compound feedingstuffs for poultry - breeders - process control - at feed mill - Surveillance											
Compound feedingstuffs for poultry - laying hens - process control - at feed mill - Surveillance											
Compound feedingstuffs for poultry - broilers - process control - at feed mill - Surveillance											
Compound feedingstuffs for poultry - breeders - final product - at farm - Control and eradication programmes											

Table Salmonella in compound feedingstuffs

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Compound feedingstuffs for poultry - broilers - final product - at farm - Control and eradication programmes		
Compound feedingstuffs for poultry - laying hens - final product - at farm - Control and eradication programmes		
Compound feedingstuffs for turkeys - final product - at farm - Control and eradication programmes		

Table Salmonella in feed material of animal origin

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Feed material of land animal origin - meat meal - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	77	0		
Feed material of land animal origin - blood meal - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	11	0		
Feed material of land animal origin - animal fat - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	1	0		
Feed material of marine animal origin - fish meal - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	26	0		

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Feed material of land animal origin - meat meal - at feed mill - Surveillance		
Feed material of land animal origin - blood meal - at feed mill - Surveillance		
Feed material of land animal origin - animal fat - at feed mill - Surveillance		
Feed material of marine animal origin - fish meal - at feed mill - Surveillance		

Table Salmonella in other feed matter

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Feed material of cereal grain origin - barley derived - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	3	0		
Feed material of cereal grain origin - wheat derived - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	19	0		
Feed material of cereal grain origin - other cereal grain derived - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	2	0		
Feed material of cereal grain origin - maize derived - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	2	0		
Other feed material - forages and roughages - at feed mill - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	3	0		
Pet food - final product - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	feed sample	Unknown	Batch	25g	61	1	1	

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Feed material of cereal grain origin - barley derived - at feed mill - Surveillance		
Feed material of cereal grain origin - wheat derived - at feed mill - Surveillance		
Feed material of cereal grain origin - other cereal grain derived - at feed mill - Surveillance		
Feed material of cereal grain origin - maize derived - at feed mill - Surveillance		

Table Salmonella in other feed matter

	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Other feed material - forages and roughages - at feed mill - Surveillance		
Pet food - final product - at processing plant - Surveillance		



## 2.1.5 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													
Number of isolates per serovar													
S. 6,7:-:1,5													
S. Braenderup													
S. Derby													
S. Enteritidis													
S. Indiana													
S. Infantis													

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													
Number of isolates per serovar													
S. Kentucky													
S. Kottbus													
S. Lille													
S. Mbandaka													
S. Montevideo													
S. Newport													
S. Ohio													
S. Saintpaul													
S. Stanley													
S. Szentes													
S. Tennessee													

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													
Number of isolates per serovar													
S. enterica subsp. enterica, rough													

  

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes				Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	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				1				351				8	
Number of isolates serotyped				1				351				8	
Number of isolates per serovar													
S. 6,7:-:1,5								10					
S. Braenderup								1					
S. Derby								3					
S. Enteritidis								236				6	
S. Indiana								4					

Table Salmonella serovars in animals

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes				Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	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				1				351				8	
Number of isolates serotyped				1				351				8	
Number of isolates per serovar													
S. Infantis								51					
S. Kentucky				1				9					
S. Kottbus								1					
S. Lille								8					
S. Mbandaka								5					
S. Montevideo								2					
S. Newport								1				1	
S. Ohio								9					
S. Saintpaul													
S. Stanley								3					

Table Salmonella serovars in animals

Serovar	Other poultry			Gallus gallus (fowl) - breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes				Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	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				1				351				8	
Number of isolates serotyped				1				351				8	
Number of isolates per serovar													
S. Szentes								2					
S. Tennessee												1	
S. enterica subsp. enterica, rough								6					

  

Serovar	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes		Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes				Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes				Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes		
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical
Sources of isolates													
Number of isolates in the laboratory			23				2				3		
Number of isolates serotyped			23				2				3		
Number of isolates per serovar													
S. 6,7:-:1,5													
S. Braenderup													

Table Salmonella serovars in animals

Serovar	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes		Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes				Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes				Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes		
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical
Sources of isolates													
Number of isolates in the laboratory			23				2				3		
Number of isolates serotyped			23				2				3		
Number of isolates per serovar													
S. Derby			12										
S. Enteritidis			7				2						
S. Indiana													
S. Infantis			1										
S. Kentucky			1								3		
S. Kottbus													
S. Lille			1										
S. Mbandaka													
S. Montevideo													
S. Newport													

Table Salmonella serovars in animals

Serovar	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes		Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes				Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes				Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes		
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical
Sources of isolates													
Number of isolates in the laboratory			23				2				3		
Number of isolates serotyped			23				2				3		
Number of isolates per serovar													
S. Ohio			1										
S. Saintpaul													
S. Stanley													
S. Szentes													
S. Tennessee													
S. enterica subsp. enterica, rough													

Table Salmonella serovars in animals

Serovar	Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes	Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes			
	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates									
Number of isolates in the laboratory		4				20			
Number of isolates serotyped		4				20			
Number of isolates per serovar									
S. 6,7:-:1,5									
S. Braenderup									
S. Derby						1			
S. Enteritidis						1			
S. Indiana									
S. Infantis									
S. Kentucky		4				2			
S. Kottbus						1			



Table Salmonella serovars in animals

Serovar	Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes	Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes			
	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates									
Number of isolates in the laboratory		4				20			
Number of isolates serotyped		4				20			
Number of isolates per serovar									
S. Lille									
S. Mbandaka									
S. Montevideo									
S. Newport						5			
S. Ohio									
S. Saintpaul						1			
S. Stanley						9			
S. Szentes									

Table Salmonella serovars in animals

Serovar	Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes	Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes			
	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates									
Number of isolates in the laboratory		4				20			
Number of isolates serotyped		4				20			
Number of isolates per serovar									
S. Tennessee									
S. enterica subsp. enterica, rough									

Footnote:

The parent breeding flocks for broiler production line - adult positive for S. Ohio was positive for S. Derby too.

Table Salmonella serovars in feed

Serovar	Compound feedingstuffs for pigs		Pet food - final product - at processing plant - Surveillance	
	Monitoring	Clinical	Monitoring	Clinical
Sources of isolates				
Number of isolates in the laboratory			1	
Number of isolates serotyped			1	
Number of isolates per serovar				
S. Enteritidis - PT 8			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 turkey	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance
Sources of isolates												
Number of isolates in the laboratory	10		43	3	72	17				3	25	1
Number of isolates serotyped	10		43	3	72	17				3	25	1
Number of isolates per serovar												
S. 1,4,12:i:-			8	2								
S. 6,7:-:1,5					8	1						
S. 9,12:iv:-	1											
S. Agona					25	2						
S. Choleraesuis			2									
S. Derby	5		14		1					2	11	
S. Enteritidis				1	2					1	1	1
S. Indiana					7	4						
S. Infantis			9		17	3						
S. Kentucky											4	
S. Kottbus						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 turkey	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance
Sources of isolates												
Number of isolates in the laboratory	10		43	3	72	17				3	25	1
Number of isolates serotyped	10		43	3	72	17				3	25	1
Number of isolates per serovar												
S. London	1											
S. Montevideo	1				7							
S. Newport						2					5	
S. Ohio					5	4						
S. Saintpaul											3	
S. Stanley											1	
S. Typhimurium	1		9									
S. enterica subsp. enterica, rough	1		1									

Table Salmonella Enteritidis phagetypes in animals

Phagetype	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 phagetyped	0	0	0	0	0	0	0	0	0	0	0	0	0
Number of isolates per phagetype													
PT 13a													
PT 14b													
PT 1b													
PT 2													
PT 21c													
PT 23													
PT 35													
PT 4b													
PT 59													
PT 6c													
PT 8													

Table Salmonella Enteritidis phagetypes in animals

Phagetype	Other poultry			Gallus gallus (fowl) - breeding flocks for broiler production line - adult - at farm - Control and eradication programmes				Gallus gallus (fowl) - breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	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				7				2				236	
Number of isolates phagetyped	0	0	0	7				2				236	
Number of isolates per phagetype													
PT 13a												2	
PT 14b												1	
PT 1b												1	
PT 2												1	
PT 21c												10	
PT 23												20	
PT 35												1	
PT 4b												1	
PT 59												1	
PT 6c												10	

Table Salmonella Enteritidis phagetypes in animals

Phagetype	Other poultry			Gallus gallus (fowl) - breeding flocks for broiler production line - adult - at farm - Control and eradication programmes				Gallus gallus (fowl) - breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes				Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	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				7				2				236	
Number of isolates phagetyped	0	0	0	7				2				236	
Number of isolates per phagetype													
PT 8				7				2				188	

Phagetype	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes		Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes			
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates										
Number of isolates in the laboratory			6				1			
Number of isolates phagetyped			6				1			
Number of isolates per phagetype										
PT 13a			2							
PT 14b										
PT 1b										



Table Salmonella Enteritidis phage types in animals

Phagetype	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes		Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes				Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes			
	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance
Sources of isolates										
Number of isolates in the laboratory			6				1			
Number of isolates phagetyped			6				1			
Number of isolates per phagetype										
PT 2										
PT 21c										
PT 23										
PT 35										
PT 4b										
PT 59										
PT 6c										
PT 8			4				1			

Table Salmonella Enteritidis phagetypes in food

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin		Meat from turkey	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance
Sources of isolates												
Number of isolates in the laboratory				1	3					1	1	1
Number of isolates phagetyped	0	0	0	1	3	0	0	0	0	1	1	1
Number of isolates per phagetype												
PT 13a										1		
PT 14b											1	1
PT 3					1							
PT 35					2							
PT 8				1								

Table Salmonella Enteritidis phage types in humans

Phagetype	Humans	
	Monitoring	Clinical
Sources of isolates		
Number of isolates in the laboratory		307
Number of isolates phagetyped	0	307
Number of isolates per phagetype		
DT RDNC		2
Other		1
PT 13a		4
PT 14b		13
PT 1b		2
PT 2		2
PT 20		2
PT 21c		24
PT 23		2
PT 3		2
PT 4		1

Table Salmonella Enteritidis phagetypes in humans

Phagetype	Humans	
	Monitoring	Clinical
Sources of isolates		
Number of isolates in the laboratory		307
Number of isolates phagetyped	0	307
Number of isolates per phagetype		
PT 4b		20
PT 6		1
PT 6c		16
PT 7		1
PT 8		212
U		2

Table Salmonella Typhimurium phage types in food

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance
Sources of isolates										
Number of isolates in the laboratory	1		12		1				2	
Number of isolates phagetyped	1	0	12	0	1	0	0	0	2	0
Number of isolates per phagetype										
DT 104			3							
DT 120			3						1	
DT 193	1									
DT 206			3							
DT 208			1							
DT 82									1	
DT U302			1		1					
RDNC			1							

Table Salmonella Typhimurium phagetypes in humans

Phagetype	Humans	
	Monitoring	Clinical
Sources of isolates		
Number of isolates in the laboratory		59
Number of isolates phagetyped	0	59
Number of isolates per phagetype		
DT 1		3
DT 10		1
DT 104		14
DT 120		8
DT 129		1
DT 13		1
DT 136		1
DT 193		4
DT 206		4
DT 208		2
DT 3		1

Table Salmonella Typhimurium phage types in humans

Phagetype	Humans	
	Monitoring	Clinical
Sources of isolates		
Number of isolates in the laboratory		59
Number of isolates phagetyped	0	59
Number of isolates per phagetype		
DT 40		1
DT 54		1
DT 8		5
DT 85		1
DT 9		1
DT 99		1
DT RDNC		4
DT U		1
DT U302		4

Table S. 1,4,[5],12:i:- phagetypes in Food

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin	
	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance
Sources of isolates										
Number of isolates in the laboratory			9	2						
Number of isolates phagetyped	0	0	9	2	0	0	0	0	0	0
Number of isolates per phagetype										
DT 193			8	2						
DT U302			1							



## 2.1.6 Antimicrobial resistance in Salmonella isolates

### A. Antimicrobial resistance in Salmonella in cattle

Sampling strategy used in monitoring

Frequency of the sampling

## B. Antimicrobial resistance in Salmonella in poultry

### Sampling strategy used in monitoring

#### Frequency of the sampling

Sampling is performed in the framework of Salmonella control programme (SCP) and in case of positive result for Salmonella spp., the strain is tested for ATB resistance.

#### Type of specimen taken

feaces, boot swabs, dust according to SCP.

#### Procedures for the selection of isolates for antimicrobial testing

Only one isolate of each serotype per holding and year is examined.

#### Methods used for collecting data

The isolates are collected from laboratories to be tested centrally at the NRL.

### Laboratory methodology used for identification of the microbial isolates

As the standardized method is certified of CLSI, i.e. Broth dilution method on standardised EUMVS format

### Laboratory used for detection for resistance

#### Cut-off values used in testing

epidemiological cut-off values recommended by EUCAST in case of assignment, CLSI, ARBAO

C. Antimicrobial resistance in Salmonella in foodstuff derived from pigs

Sampling strategy used in monitoring

Frequency of the sampling

## D. Antimicrobial resistance in Salmonella in foodstuff derived from poultry

### Sampling strategy used in monitoring

#### Frequency of the sampling

There is the specific monitoring program for antimicrobial resistance applied together with monitoring zoonoses in the Czech Republic. This monitoring take place together with monitoring zoonoses in accordance with Directive 2003/99/EC. The samples were taken one times a month in slaughterhouses.

#### Type of specimen taken

Neck skin samples are taken randomly from 15 carcasses of broilers after chilling. Minimal weight each of samples is 10g.

#### Methods of sampling (description of sampling techniques)

The sampling is stratified by location slaughterhouses. The sampling is the component of zoonoses monitoring.

#### Procedures for the selection of isolates for antimicrobial testing

The investigation carry out in all isolated serotype.

#### Methods used for collecting data

The isolates are collected from laboratories to be tested centrally at the NRL.

### Laboratory methodology used for identification of the microbial isolates

As the standardized method is certified of CLSI, i.e. Broth dilution method on standardised EUMVS format

### Laboratory used for detection for resistance

#### Cut-off values used in testing

epidemiological cut-off values recommended by EUCAST in case of assignment, CLSI, ARBAO

### Control program/mechanisms

#### The control program/strategies in place

The competent authority takes measures according to the legislation in force and defined cases are reported into the Rapid Alert System for Food and Feed.

#### Recent actions taken to control the zoonoses

SVA, NIPH and CAFIA carry out monitoring and control programmes in the whole food chain and take appropriate measures according to the legislation in force to ensure safe foodstuffs.

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 23 in Pet food - final product - at processing plant - Surveillance - Official sampling - feed sample - quantitative data [Dilution method]**

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

PT 23	Pet food - final product - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

PT 23	Pet food - final product - at processing plant - Surveillance	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 23 in Pet food - final product - at processing plant - Surveillance - Official sampling  
- feed sample - quantitative data [Dilution method]

<b>PT 23</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Pet food - final product - at processing plant - Surveillance	
	21	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Indiana* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

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

S. Indiana	Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

**Table Antimicrobial susceptibility testing of *S. Indiana* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

<b>S. Indiana</b>	Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	14	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Mbandaka* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	5	0										2	3														
Aminoglycosides - Streptomycin	16	5	0														1	4										
Amphenicols - Chloramphenicol	16	5	0													3	2											
Cephalosporins - Cefotaxime	0.5	5	0							1	4																	
Fluoroquinolones - Ciprofloxacin	0.06	5	0				5																					
Penicillins - Ampicillin	4	5	0											5														
Quinolones - Nalidixic acid	16	5	0													5												
Trimethoprim	2	5	0										5															
Cephalosporins - Ceftazidim	2	5	0									4	1															
Sulfonamides - Sulfamethoxazole	256	5	0																2	3								
Tetracyclines	8	5	4											1						4								

Table Antimicrobial susceptibility testing of *S. Mbandaka* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Mbandaka</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	5	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Kentucky in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Kentucky	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	5	1										2	2					1									
Aminoglycosides - Streptomycin	16	5	1													1		3			1							
Amphenicols - Chloramphenicol	16	5	0													1	4											
Cephalosporins - Cefotaxime	0.5	5	0							1	3	1																
Fluoroquinolones - Ciprofloxacin	0.06	5	1				4										1											
Penicillins - Ampicillin	4	5	1											2	2				1									
Quinolones - Nalidixic acid	16	5	1													4				1								
Trimethoprim	2	5	0										5															
Cephalosporins - Ceftazidim	2	5	0									1	3	1														
Sulfonamides - Sulfamethoxazole	256	5	1																	4						1		
Tetracyclines	8	5	1												3	1				1								

Table Antimicrobial susceptibility testing of *S. Kentucky* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Kentucky</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	22	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Newport* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

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

S. Newport	Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																1									
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1									1																
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

Table Antimicrobial susceptibility testing of *S. Newport* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten  
cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Newport</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
	10	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Choleraesuis* in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

S. Choleraesuis	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										1	1														
Aminoglycosides - Streptomycin	16	2	0														1	1										
Amphenicols - Chloramphenicol	16	2	0													2												
Cephalosporins - Cefotaxime	0.5	2	0							1	1																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0						2																			
Penicillins - Ampicillin	4	2	0											1	1													
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																2									
Tetracyclines	8	2	0												2													

S. Choleraesuis	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

Table Antimicrobial susceptibility testing of *S. Choleraesuis* in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

<b>S. Choleraesuis</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	4	
Antimicrobials:	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Kentucky* in *Gallus gallus* (fowl) - elite breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

S. Kentucky	Gallus gallus (fowl) - elite breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Aminoglycosides - Gentamicin	2	1	0										1													
Aminoglycosides - Streptomycin	16	1	0														1									
Amphenicols - Chloramphenicol	16	1	0													1										
Cephalosporins - Cefotaxime	0.5	1	0								1															
Fluoroquinolones - Ciprofloxacin	0.06	1	1														1									
Penicillins - Ampicillin	4	1	1																1							
Quinolones - Nalidixic acid	16	1	1																	1						
Trimethoprim	2	1	0										1													
Cephalosporins - Ceftazidim	2	1	0										1													
Sulfonamides - Sulfamethoxazole	256	1	0															1								
Tetracyclines	8	1	0											1												

**Table Antimicrobial susceptibility testing of S. Kentucky in Gallus gallus (fowl) - elite breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

<b>S. Kentucky</b>	Gallus gallus (fowl) - elite breeding flocks for egg production line - during rearing period - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	22	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Bahrenfeld* in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

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

S. Bahrenfeld	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0									1															
Aminoglycosides - Streptomycin	16	1	0												1												
Amphenicols - Chloramphenicol	16	1	0													1											
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0			1																					
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0															1									
Tetracyclines	8	1	0											1													

S. Bahrenfeld	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	1	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Bahrenfeld* in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

<b>S. Bahrenfeld</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	1	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Derby in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

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

S. Derby	Meat from bovine animals - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	38																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	3	0										3															
Aminoglycosides - Streptomycin	16	3	1														1	1		1								
Amphenicols - Chloramphenicol	16	3	1													1	1			1								
Cephalosporins - Cefotaxime	0.5	3	0								3																	
Fluoroquinolones - Ciprofloxacin	0.06	3	0				1		2																			
Penicillins - Ampicillin	4	3	0											3														
Quinolones - Nalidixic acid	16	3	0													3												
Trimethoprim	2	3	0										3															
Cephalosporins - Ceftazidim	2	3	0										3															
Sulfonamides - Sulfamethoxazole	256	3	1																1	1					1			
Tetracyclines	8	3	1												2					1								

S. Derby	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Derby* in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	38	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Agona in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

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

S. Agona	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	11																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0									1																
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0														1											
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0													1												

S. Agona	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
	11	
Number of isolates available in the laboratory		
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Agona* in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

S. Agona	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of S. Derby in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

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

S. Derby	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0														1										
Amphenicols - Chloramphenicol	16	1	0														1										
Cephalosporins - Cefotaxime	0.5	1	0								1																
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																		
Penicillins - Ampicillin	4	1	0												1												
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0										1														
Sulfonamides - Sulfamethoxazole	256	1	0																	1							
Tetracyclines	8	1	0												1												

S. Derby	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Derby in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

S. Derby	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

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

S. Infantis	Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																1									
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1										1															
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Infantis</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
	68	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Kottbus in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0												1													
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Kottbus* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Kottbus</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	3	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Lille* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0											2														
Aminoglycosides - Streptomycin	16	2	0															2										
Amphenicols - Chloramphenicol	16	2	0														2											
Cephalosporins - Cefotaxime	0.5	2	0								2																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0										2															
Sulfonamides - Sulfamethoxazole	256	2	0																	2								
Tetracyclines	8	2	0												2													

**Table Antimicrobial susceptibility testing of S. Lille in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Lille</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	9	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of S. Montevideo in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

S. Montevideo	Meat from bovine animals - fresh - at slaughterhouse - Monitoring																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0											1													
Aminoglycosides - Streptomycin	16	1	0														1										
Amphenicols - Chloramphenicol	16	1	0														1										
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																1								
Tetracyclines	8	1	0												1												

S. Montevideo	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Montevideo in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

<b>S. Montevideo</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	6	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

S. 6,7:-:1,5	Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	14																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																1									
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1										1															
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

**Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

<b>S. 6,7:-:1,5</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
	14	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Stanley in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

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

S. Stanley	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1									1																
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0											1														
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0												1													

S. Stanley	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	16	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of S. Stanley in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

<b>S. Stanley</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	16	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Ohio in Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

S. Ohio	Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	3	0									1	2															
Aminoglycosides - Streptomycin	16	3	0													3												
Amphenicols - Chloramphenicol	16	3	0													1	2											
Cephalosporins - Cefotaxime	0.5	3	0							1	2																	
Fluoroquinolones - Ciprofloxacin	0.06	3	0				3																					
Penicillins - Ampicillin	4	3	0											2		1												
Quinolones - Nalidixic acid	16	3	0													3												
Trimethoprim	2	3	0										3															
Cephalosporins - Ceftazidim	2	3	0									1	2															
Sulfonamides - Sulfamethoxazole	256	3	0																2		1							
Tetracyclines	8	3	0												2		1											

S. Ohio	Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Ohio* in Meat from broilers (*Gallus gallus*) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Ohio</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance	
	16	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Stanley in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Stanley	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes																											
	16																											
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	≥4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	0														2											
Amphenicols - Chloramphenicol	16	2	0													2												
Cephalosporins - Cefotaxime	0.5	2	0							2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	2								2																	
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	2																	2								
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																	2								
Tetracyclines	8	2	0												2													

**Table Antimicrobial susceptibility testing of S. Stanley in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Stanley</b>	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	16	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Derby in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0													1												

**Table Antimicrobial susceptibility testing of S. Derby in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
	38	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 120 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

DT 120	Meat from pig - fresh - at slaughterhouse - Monitoring																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	1																	1							
Amphenicols - Chloramphenicol	16	1	1																	1							
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	1																1								
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	1																						1		
Tetracyclines	8	1	1																1								

DT 120	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 120 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

<b>DT 120</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	3	
<b>Antimicrobials:</b>	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Infantis in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	68																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	32	0										30	2														
Aminoglycosides - Streptomycin	16	32	31														1		20	9	2							
Amphenicols - Chloramphenicol	16	32	0														21	11										
Cephalosporins - Cefotaxime	0.5	32	0								16	16																
Fluoroquinolones - Ciprofloxacin	0.06	32	31						1			1	22	2		6												
Penicillins - Ampicillin	4	32	6											6	11	9			6									
Quinolones - Nalidixic acid	16	32	31													1				31								
Trimethoprim	2	32	0										32															
Cephalosporins - Ceftazidim	2	32	0									2	22	8														
Sulfonamides - Sulfamethoxazole	256	32	31																	1						31		
Tetracyclines	8	32	31												1					31								

Table Antimicrobial susceptibility testing of *S. Infantis* in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

S. Infantis	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Typhimurium* - RDNC in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]**

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

RDNC	Meat from pig - fresh - at slaughterhouse - Monitoring																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0															1									
Amphenicols - Chloramphenicol	16	1	0														1										
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																1								
Tetracyclines	8	1	0													1											

RDNC	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

Table Antimicrobial susceptibility testing of *S. Typhimurium* - RDNC in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling  
 - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

RDNC  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	1	
Antimicrobials:	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 14b in Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

PT 14b	Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	3																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1										1															
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 14b in Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

PT 14b   Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
	3	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Gallinarum biovar Pullorum in Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

S. Gallinarum biovar Pullorum	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	2	0										2														
Aminoglycosides - Streptomycin	16	2	0														1	1									
Amphenicols - Chloramphenicol	16	2	0													1	1										
Cephalosporins - Cefotaxime	0.5	2	0							1	1																
Fluoroquinolones - Ciprofloxacin	0.06	2	1				1							1													
Penicillins - Ampicillin	4	2	0											2													
Quinolones - Nalidixic acid	16	2	1													1				1							
Trimethoprim	2	2	0										2														
Cephalosporins - Ceftazidim	2	2	0									1	1														
Sulfonamides - Sulfamethoxazole	256	2	0																1	1							
Tetracyclines	8	2	0												2												

S. Gallinarum biovar Pullorum	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	4	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Gallinarum biovar Pullorum in Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

S. Gallinarum biovar Pullorum	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 104 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

DT 104	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	3	0										2	1														
Aminoglycosides - Streptomycin	16	3	3																		3							
Amphenicols - Chloramphenicol	16	3	3																	3								
Cephalosporins - Cefotaxime	0.5	3	0							2	1																	
Fluoroquinolones - Ciprofloxacin	0.06	3	1				2				1																	
Penicillins - Ampicillin	4	3	3																3									
Quinolones - Nalidixic acid	16	3	1													2				1								
Trimethoprim	2	3	0										3															
Cephalosporins - Ceftazidim	2	3	0									2	1															
Sulfonamides - Sulfamethoxazole	256	3	3																							3		
Tetracyclines	8	3	3																1	2								

DT 104	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 104 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

<b>DT 104</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	7	
<b>Antimicrobials:</b>	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Typhimurium - DT 2 in Pigeons - at farm - Clinical investigations - animal sample - quantitative data [Dilution method]

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

DT 2	Pigeons - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	3	0										2	1														
Aminoglycosides - Streptomycin	16	3	1														2		1									
Amphenicols - Chloramphenicol	16	3	0													2	1											
Cephalosporins - Cefotaxime	0.5	3	0							2	1																	
Fluoroquinolones - Ciprofloxacin	0.06	3	0				3																					
Penicillins - Ampicillin	4	3	0										1	1	1													
Quinolones - Nalidixic acid	16	3	0													3												
Trimethoprim	2	3	0										3															
Cephalosporins - Ceftazidim	2	3	0									2	1															
Sulfonamides - Sulfamethoxazole	256	3	0															1	1	1								
Tetracyclines	8	3	0												2		1											

DT 2	Pigeons - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

Table Antimicrobial susceptibility testing of S. Typhimurium - DT 2 in Pigeons - at farm - Clinical investigations - animal sample - quantitative data [Dilution method]

DT 2  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Pigeons - at farm - Clinical investigations	
	3	
	lowest	highest
Antimicrobials:		
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT U302 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

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

DT U302	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT U302	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

**Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT U302 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

<b>DT U302</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	1	
<b>Antimicrobials:</b>	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

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

rough	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0											1													
Aminoglycosides - Streptomycin	16	1	0														1										
Amphenicols - Chloramphenicol	16	1	0														1										
Cephalosporins - Cefotaxime	0.5	1	0								1																
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																1								
Tetracyclines	8	1	0												1												

rough	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

rough	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 8	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	136	0									9	105	22														
Aminoglycosides - Streptomycin	16	136	0													107	29											
Amphenicols - Chloramphenicol	16	136	0													72	64											
Cephalosporins - Cefotaxime	0.5	136	0							60	72	4																
Fluoroquinolones - Ciprofloxacin	0.06	136	1				79		56		1																	
Penicillins - Ampicillin	4	136	0											73	56	7												
Quinolones - Nalidixic acid	16	136	0													133	2	1										
Trimethoprim	2	136	0										135	1														
Cephalosporins - Ceftazidim	2	136	0									110	26															
Sulfonamides - Sulfamethoxazole	256	136	0																60	71	5							
Tetracyclines	8	136	0											26	100	10												

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>PT 8</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	204	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Indiana* in Meat from broilers (*Gallus gallus*) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

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

S. Indiana	Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	3	0										2	1													
Aminoglycosides - Streptomycin	16	3	0														3										
Amphenicols - Chloramphenicol	16	3	0													2	1										
Cephalosporins - Cefotaxime	0.5	3	0							2	1																
Fluoroquinolones - Ciprofloxacin	0.06	3	0				3																				
Penicillins - Ampicillin	4	3	0											2	1												
Quinolones - Nalidixic acid	16	3	0													3											
Trimethoprim	2	3	0										3														
Cephalosporins - Ceftazidim	2	3	0									3															
Sulfonamides - Sulfamethoxazole	256	3	0																1	2							
Tetracyclines	8	3	0											2	1												

S. Indiana	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Indiana* in Meat from broilers (*Gallus gallus*) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Indiana</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance	
	14	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Agona in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

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

S. Agona	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	11																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	8	0										7	1														
Aminoglycosides - Streptomycin	16	8	0													1	7											
Amphenicols - Chloramphenicol	16	8	0													1	7											
Cephalosporins - Cefotaxime	0.5	8	0							1	7																	
Fluoroquinolones - Ciprofloxacin	0.06	8	0				8																					
Penicillins - Ampicillin	4	8	0											6	2													
Quinolones - Nalidixic acid	16	8	0													8												
Trimethoprim	2	8	0										7	1														
Cephalosporins - Ceftazidim	2	8	0									2	6															
Sulfonamides - Sulfamethoxazole	256	8	0																5	2	1							
Tetracyclines	8	8	0												7	1												

S. Agona	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	11	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of *S. Agona* in Meat from broilers (*Gallus gallus*) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

<b>S. Agona</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Monitoring	
	11	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]**

PT 8		Concentration (µg/ml), number of isolates with a concentration of inhibition equal to																									
		Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																									
		204																									
Antimicrobials:		Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Isolates out of a monitoring program (yes/no)																											
Number of isolates available in the laboratory																											
Aminoglycosides - Gentamicin		2	4	0										2	2												
Aminoglycosides - Streptomycin		16	4	0													3	1									
Amphenicols - Chloramphenicol		16	4	0													2	2									
Cephalosporins - Cefotaxime		0.5	4	0							3		1														
Fluoroquinolones - Ciprofloxacin		0.06	4	0				1		3																	
Penicillins - Ampicillin		4	4	0											2	2											
Quinolones - Nalidixic acid		16	4	0													4										
Trimethoprim		2	4	0										4													
Cephalosporins - Ceftazidim		2	4	0									4														
Sulfonamides - Sulfamethoxazole		256	4	0																2	2						
Tetracyclines		8	4	0												4											

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]**

PT 8	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	204	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

PT 8	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

PT 8	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	204	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>PT 8</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations	
	204	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from broilers (*Gallus gallus*) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

S. Infantis	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0									1		1														
Aminoglycosides - Streptomycin	16	2	2																1		1							
Amphenicols - Chloramphenicol	16	2	0														1	1										
Cephalosporins - Cefotaxime	0.5	2	0								1	1																
Fluoroquinolones - Ciprofloxacin	0.06	2	2										2															
Penicillins - Ampicillin	4	2	0												1	1												
Quinolones - Nalidixic acid	16	2	2																	2								
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0										2															
Sulfonamides - Sulfamethoxazole	256	2	2																						2			
Tetracyclines	8	2	2																	2								

Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from broilers (*Gallus gallus*) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Infantis</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers ( <i>Gallus gallus</i> ) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	
	68	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. 9,12:lv:- in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

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

S. 9,12:lv:-  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from bovine animals - fresh - at slaughterhouse - Monitoring																											
	1																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0													1												
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																		1							
Tetracyclines	8	1	0												1													

S. 9,12:lv:-  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	1	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of S. 9,12:lv:- in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

S. 9,12:lv:-	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	1	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 35 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 35	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0											1														

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 35 in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

PT 35   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	2	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 3 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations**  
**- animal sample - faeces - quantitative data [Dilution method]**

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

PT 3	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0													1												

PT 3	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	1	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 3 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

<b>PT 3</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	1	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Ohio in Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

S. Ohio	Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	16																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Ohio* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Ohio</b>   Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
	16	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 23 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 23	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
	Aminoglycosides - Gentamicin	2	11	0								2	9															
	Aminoglycosides - Streptomycin	16	11	0													10	1										
	Amphenicols - Chloramphenicol	16	11	0													8	3										
	Cephalosporins - Cefotaxime	0.5	11	0							3	8																
	Fluoroquinolones - Ciprofloxacin	0.06	11	0				5		6																		
	Penicillins - Ampicillin	4	11	0											6	3	2											
	Quinolones - Nalidixic acid	16	11	0													11											
	Trimethoprim	2	11	0										11														
	Cephalosporins - Ceftazidim	2	11	0									10	1														
	Sulfonamides - Sulfamethoxazole	256	11	0																7	4							
	Tetracyclines	8	11	0											2	9												

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 23 in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

PT 23   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	21	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Typhimurium* - DT 206 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

DT 206	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

DT 206	Meat from pig - fresh - at slaughterhouse - Monitoring	
	1	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 206 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

<b>DT 206</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	1	
	lowest	highest
<b>Antimicrobials:</b>		
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

DT 193	Pigs - fattening pigs - unspecified - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT 193	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>DT 193</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	11	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

PT 8	Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	204																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

PT 8	Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	204	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 13a in Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance - Official sampling - food sample - quantitative data [Dilution method]**

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

PT 13a	Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0													1											
Amphenicols - Chloramphenicol	16	1	0													1											
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																		
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																1								
Tetracyclines	8	1	0												1												

PT 13a	Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 13a in Eggs - raw material (liquid egg) for egg products - at processing plant -  
Surveillance - Official sampling - food sample - quantitative data [Dilution method]

PT 13a	Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Indiana in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	0															2										
Amphenicols - Chloramphenicol	16	2	0														2											
Cephalosporins - Cefotaxime	0.5	2	0							2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	0										1	1														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0															2										
Tetracyclines	8	2	0												2													

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Indiana</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	14	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

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

DT 193	Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	11																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	2																	2								
Amphenicols - Chloramphenicol	16	2	0													1	1											
Cephalosporins - Cefotaxime	0.5	2	0							2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	2																2									
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	2																						2			
Tetracyclines	8	2	2																	2								

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>DT 193</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	
	11	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Kentucky* in Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

<b>S. Kentucky</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes																									
	22																									
<b>Antimicrobials:</b>	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Aminoglycosides - Gentamicin	2	4	4															3	1							
Aminoglycosides - Streptomycin	16	4	4																	4						
Amphenicols - Chloramphenicol	16	4	0													3	1									
Cephalosporins - Cefotaxime	0.5	4	0								4															
Fluoroquinolones - Ciprofloxacin	0.06	4	4														4									
Penicillins - Ampicillin	4	4	4																4							
Quinolones - Nalidixic acid	16	4	4																	4						
Trimethoprim	2	4	0										4													
Cephalosporins - Ceftazidim	2	4	0									1	3													
Sulfonamides - Sulfamethoxazole	256	4	4																						4	
Tetracyclines	8	4	4																	4						

**Table Antimicrobial susceptibility testing of S. Kentucky in Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

S. Kentucky	Turkeys - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Antimicrobials:	22	
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Kentucky* in Turkeys - unspecified - adult - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

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

S. Kentucky	Turkeys - unspecified - adult - at farm - Clinical investigations																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0											1													
Aminoglycosides - Streptomycin	16	1	0														1										
Amphenicols - Chloramphenicol	16	1	0													1											
Cephalosporins - Cefotaxime	0.5	1	0								1																
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																		
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0										1														
Sulfonamides - Sulfamethoxazole	256	1	0																	1							
Tetracyclines	8	1	0												1												

S. Kentucky	Turkeys - unspecified - adult - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Kentucky* in Turkeys - unspecified - adult - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

<b>S. Kentucky</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Turkeys - unspecified - adult - at farm - Clinical investigations	
	22	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. London in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

S. London	Meat from bovine animals - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	1																	1								
Amphenicols - Chloramphenicol	16	1	1																	1								
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1											1														
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0														1											
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0											1														

S. London	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	1	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. London* in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

<b>S. London</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	1	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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) - broilers - before slaughter - at farm - Control and eradication programmes																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0															1									
Amphenicols - Chloramphenicol	16	1	0													1											
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1										1														
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	1																	1							
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	1																						1		
Tetracyclines	8	1	1																	1							

**Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Newport</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	10	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Newport* in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

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

S. Newport	Meat from turkey - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1									1																
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	1																1									
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	1																	1								

S. Newport	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Newport* in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

<b>S. Newport</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	10	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Agona* in Meat from broilers (*Gallus gallus*) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

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

S. Agona	Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

S. Agona	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Agona* in Meat from broilers (*Gallus gallus*) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Agona</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance	
	11	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Newport in Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes  
- Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]

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

S. Newport	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	1																	1								

S. Newport	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes  
- Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]

S. Newport	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	10	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Kottbus in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0									1																
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0															1										
Tetracyclines	8	1	1																	1								

**Table Antimicrobial susceptibility testing of *S. Kottbus* in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Kottbus</b>	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	3	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Stanley in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

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

S. Stanley	Meat from turkey - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	1																1									
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1								1																	
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	0												1													

S. Stanley	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	16	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Stanley* in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

<b>S. Stanley</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	16	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Choleraesuis* in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

S. Choleraesuis	Pigs - fattening pigs - unspecified - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

S. Choleraesuis	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Choleraesuis* in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>S. Choleraesuis</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	4	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Derby in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

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

S. Derby	Meat from turkey - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	38																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	4	0										4															
Aminoglycosides - Streptomycin	16	4	0														3	1										
Amphenicols - Chloramphenicol	16	4	0														4											
Cephalosporins - Cefotaxime	0.5	4	0								4																	
Fluoroquinolones - Ciprofloxacin	0.06	4	0						4																			
Penicillins - Ampicillin	4	4	0											2	2													
Quinolones - Nalidixic acid	16	4	0													4												
Trimethoprim	2	4	0										4															
Cephalosporins - Ceftazidim	2	4	0									1	3															
Sulfonamides - Sulfamethoxazole	256	4	0																1	3								
Tetracyclines	8	4	0												3	1												

S. Derby	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	38	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of S. Derby in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	38	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Derby in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

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

S. Derby	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	38																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	9	0									1	7	1														
Aminoglycosides - Streptomycin	16	9	3													1	5			1	2							
Amphenicols - Chloramphenicol	16	9	0													1	6	2										
Cephalosporins - Cefotaxime	0.5	9	1								7	1				1												
Fluoroquinolones - Ciprofloxacin	0.06	9	0				2		7																			
Penicillins - Ampicillin	4	9	1											4	3	1			1									
Quinolones - Nalidixic acid	16	9	0													6	3											
Trimethoprim	2	9	0										8	1														
Cephalosporins - Ceftazidim	2	9	1										8					1										
Sulfonamides - Sulfamethoxazole	256	9	3															2	1	3					3			
Tetracyclines	8	9	0											1	4	4												

S. Derby	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	38	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

Table Antimicrobial susceptibility testing of *S. Derby* in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	38	
	lowest	highest
<b>Antimicrobials:</b>		
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Stanley in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Stanley	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	16																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1									1																
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of S. Stanley in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Stanley</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	16	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]**

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

S. Infantis	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	6	0										5	1														
Aminoglycosides - Streptomycin	16	6	3													1	1	1		1	2							
Amphenicols - Chloramphenicol	16	6	0													2	4											
Cephalosporins - Cefotaxime	0.5	6	0							1	4	1																
Fluoroquinolones - Ciprofloxacin	0.06	6	1				3		2								1											
Penicillins - Ampicillin	4	6	3											3				1	2									
Quinolones - Nalidixic acid	16	6	1													5				1								
Trimethoprim	2	6	2										3	1					2									
Cephalosporins - Ceftazidim	2	6	0									1	4	1														
Sulfonamides - Sulfamethoxazole	256	6	3																1	2						3		
Tetracyclines	8	6	4												2					4								

S. Infantis	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

<b>S. Infantis</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	68	
Antimicrobials:	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Stanley in Turkeys - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

S. Stanley	Turkeys - unspecified - adult - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1								1																	
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0												1													

S. Stanley	Turkeys - unspecified - adult - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Stanley* in Turkey - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>S. Stanley</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Turkey - unspecified - adult - at farm - Clinical investigations	
	16	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Derby in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

**Table Antimicrobial susceptibility testing of S. Derby in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	38	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Ohio in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

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

S. Ohio	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	16																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										1	1														
Aminoglycosides - Streptomycin	16	2	0													1	1											
Amphenicols - Chloramphenicol	16	2	0														2											
Cephalosporins - Cefotaxime	0.5	2	0								2																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	0											1	1													
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										1	1														
Cephalosporins - Ceftazidim	2	2	0										2															
Sulfonamides - Sulfamethoxazole	256	2	0																1	1								
Tetracyclines	8	2	0												2													

S. Ohio	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Ohio in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

<b>S. Ohio</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	16	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Derby in Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

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

S. Derby	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	1													1												
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	1															1										
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	1																	1								

S. Derby	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	38	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Derby* in Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations	
	38	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

rough	Meat from bovine animals - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0									1																
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																		1							
Tetracyclines	8	1	0												1													

rough	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	9	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

rough	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	9	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Derby* in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

S. Derby	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Aminoglycosides - Gentamicin	2	10	0										10													
Aminoglycosides - Streptomycin	16	10	0														8	2								
Amphenicols - Chloramphenicol	16	10	0													1	7	2								
Cephalosporins - Cefotaxime	0.5	10	0							1	8	1														
Fluoroquinolones - Ciprofloxacin	0.06	10	0						10																	
Penicillins - Ampicillin	4	10	0											6	3	1										
Quinolones - Nalidixic acid	16	10	0													9	1									
Trimethoprim	2	10	0										10													
Cephalosporins - Ceftazidim	2	10	0									1	9													
Sulfonamides - Sulfamethoxazole	256	10	0															1	4	3	2					
Tetracyclines	8	10	0												8	2										

**Table Antimicrobial susceptibility testing of S. Derby in Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

S. Derby	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	38	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 14b in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

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

PT 14b	Meat from turkey - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

PT 14b	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 14b in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

<b>PT 14b</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	3	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]**

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

DT 193	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	5	0										5															
Aminoglycosides - Streptomycin	16	5	3														1	1			3							
Amphenicols - Chloramphenicol	16	5	0														5											
Cephalosporins - Cefotaxime	0.5	5	0							3	2																	
Fluoroquinolones - Ciprofloxacin	0.06	5	0				2		3																			
Penicillins - Ampicillin	4	5	2											2	1				2									
Quinolones - Nalidixic acid	16	5	0													5												
Trimethoprim	2	5	0										5															
Cephalosporins - Ceftazidim	2	5	0									5																
Sulfonamides - Sulfamethoxazole	256	5	3																	2						3		
Tetracyclines	8	5	4												1					4								

DT 193	Meat from pig - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling  
- Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

<b>DT 193</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	11	
<b>Antimicrobials:</b>	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Saintpaul* in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1								1																	
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

**Table Antimicrobial susceptibility testing of S. Saintpaul in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Saintpaul</b>	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	2	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Indiana in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

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

S. Indiana	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	14																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	5	0										3	2														
Aminoglycosides - Streptomycin	16	5	0															5										
Amphenicols - Chloramphenicol	16	5	0													3	2											
Cephalosporins - Cefotaxime	0.5	5	0							5																		
Fluoroquinolones - Ciprofloxacin	0.06	5	0				3		2																			
Penicillins - Ampicillin	4	5	0										1	4														
Quinolones - Nalidixic acid	16	5	0													5												
Trimethoprim	2	5	0										5															
Cephalosporins - Ceftazidim	2	5	0									5																
Sulfonamides - Sulfamethoxazole	256	5	0																4	1								
Tetracyclines	8	5	0											1	4													

S. Indiana	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of *S. Indiana* in Meat from broilers (*Gallus gallus*) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

<b>S. Indiana</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Monitoring	
	14	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Infantis* in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

S. Infantis	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Aminoglycosides - Gentamicin	2	1	0										1													
Aminoglycosides - Streptomycin	16	1	1																	1						
Amphenicols - Chloramphenicol	16	1	0														1									
Cephalosporins - Cefotaxime	0.5	1	0							1																
Fluoroquinolones - Ciprofloxacin	0.06	1	1										1													
Penicillins - Ampicillin	4	1	0											1												
Quinolones - Nalidixic acid	16	1	1																	1						
Trimethoprim	2	1	0										1													
Cephalosporins - Ceftazidim	2	1	0									1														
Sulfonamides - Sulfamethoxazole	256	1	1																						1	
Tetracyclines	8	1	1																	1						

**Table Antimicrobial susceptibility testing of *S. Infantis* in Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

<b>S. Infantis</b>	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	68	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. 6,7:-:1,5	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	14																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	8	0										8															
Aminoglycosides - Streptomycin	16	8	8																7	1								
Amphenicols - Chloramphenicol	16	8	0													1	5	2										
Cephalosporins - Cefotaxime	0.5	8	0								7	1																
Fluoroquinolones - Ciprofloxacin	0.06	8	8										8															
Penicillins - Ampicillin	4	8	0											2	4	2												
Quinolones - Nalidixic acid	16	8	8																	8								
Trimethoprim	2	8	0										8															
Cephalosporins - Ceftazidim	2	8	0										7	1														
Sulfonamides - Sulfamethoxazole	256	8	8																						8			
Tetracyclines	8	8	8																	8								

Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

S. 6,7:-:1,5  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	14	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Kentucky in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

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

S. Kentucky	Meat from turkey - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	22																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	1															1										
Aminoglycosides - Streptomycin	16	1	1																1									
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1														1											
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

S. Kentucky	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	22	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Kentucky* in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

<b>S. Kentucky</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	22	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Newport in Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

S. Newport	Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	10																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																1									
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1										1															
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

S. Newport	Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	10	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Newport* in Meat from broilers (*Gallus gallus*) - fresh - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Newport</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance	
	10	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Szentes in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Szentes	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										1	1														
Aminoglycosides - Streptomycin	16	2	0														2											
Amphenicols - Chloramphenicol	16	2	0														2											
Cephalosporins - Cefotaxime	0.5	2	0							1	1																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									1	1															
Sulfonamides - Sulfamethoxazole	256	2	0																	2								
Tetracyclines	8	2	0												1	1												

Table Antimicrobial susceptibility testing of *S. Szentes* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Szentes</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	2	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of *S. Agona* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

S. Agona	Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0															1									
Amphenicols - Chloramphenicol	16	1	0														1										
Cephalosporins - Cefotaxime	0.5	1	0								1																
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0										1														
Sulfonamides - Sulfamethoxazole	256	1	0																1								
Tetracyclines	8	1	0												1												

Table Antimicrobial susceptibility testing of *S. Agona* in Meat from broilers (*Gallus gallus*) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Agona</b>   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
	11	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

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

rough	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	5	0										5														
Aminoglycosides - Streptomycin	16	5	2														3		2								
Amphenicols - Chloramphenicol	16	5	0													3	2										
Cephalosporins - Cefotaxime	0.5	5	0							3	1	1															
Fluoroquinolones - Ciprofloxacin	0.06	5	2						3				2														
Penicillins - Ampicillin	4	5	0											4		1											
Quinolones - Nalidixic acid	16	5	2													3				2							
Trimethoprim	2	5	0										5														
Cephalosporins - Ceftazidim	2	5	0									3	1	1													
Sulfonamides - Sulfamethoxazole	256	5	2																3							2	
Tetracyclines	8	5	2												3					2							

Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

rough	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	9	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

PT 8	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	0													2												
Amphenicols - Chloramphenicol	16	2	0													2												
Cephalosporins - Cefotaxime	0.5	2	0								2																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0						2																			
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																2									
Tetracyclines	8	2	0												2													

PT 8	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]

<b>PT 8</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	204	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Kottbus* in Meat from broilers (*Gallus gallus*) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]**

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

S. Kottbus	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1								1																	
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Kottbus* in Meat from broilers (*Gallus gallus*) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Kottbus</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers ( <i>Gallus gallus</i> ) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	
	3	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of *S. Derby* in Meat, mixed meat - minced meat - intended to be eaten cooked - at processing plant - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

S. Derby	Meat, mixed meat - minced meat - intended to be eaten cooked - at processing plant - Surveillance																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	0													1	1											
Amphenicols - Chloramphenicol	16	2	0													1	1											
Cephalosporins - Cefotaxime	0.5	2	0							1	1																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				1		1																			
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									1	1															
Sulfonamides - Sulfamethoxazole	256	2	0																1	1								
Tetracyclines	8	2	0											1	1													

Table Antimicrobial susceptibility testing of *S. Derby* in Meat, mixed meat - minced meat - intended to be eaten cooked - at processing plant -  
Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Meat, mixed meat - minced meat - intended to be eaten cooked - at processing plant - Surveillance	
	38	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Typhimurium - DT 120 in Goats - at farm - Clinical investigations - animal sample - quantitative data [Dilution method]

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

DT 120	Goats - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	1																	1								

DT 120	Goats - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 120 in Goats - at farm - Clinical investigations - animal sample - quantitative data [Dilution method]**

DT 120  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Goats - at farm - Clinical investigations	
	3	
	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - 2 in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

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

2	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	1																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0											1														

Table Antimicrobial susceptibility testing of *S. Enteritidis* - 2 in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

2	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Antimicrobials:	1	
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Saintpaul* in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

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

S. Saintpaul	Meat from turkey - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	1								1																	
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0												1													

S. Saintpaul	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Saintpaul* in Meat from turkey - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

<b>S. Saintpaul</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from turkey - fresh - at slaughterhouse - Monitoring	
	2	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 14b in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 14b	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0													1												

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 14b in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>PT 14b</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	3	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Infantis in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

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

S. Infantis	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	68																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	7	0										6	1														
Aminoglycosides - Streptomycin	16	7	6															1	2	4								
Amphenicols - Chloramphenicol	16	7	0													1	5	1										
Cephalosporins - Cefotaxime	0.5	7	0								3	4																
Fluoroquinolones - Ciprofloxacin	0.06	7	6						1				5	1														
Penicillins - Ampicillin	4	7	1											2	3	1			1									
Quinolones - Nalidixic acid	16	7	6													1				6								
Trimethoprim	2	7	0										6		1													
Cephalosporins - Ceftazidim	2	7	0										6	1														
Sulfonamides - Sulfamethoxazole	256	7	7																						7			
Tetracyclines	8	7	7																	7								

S. Infantis	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	68	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from broilers (*Gallus gallus*) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

<b>S. Infantis</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Monitoring	
	68	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Montevideo* in Meat from broilers (*Gallus gallus*) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

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

S. Montevideo	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	3	0											3													
Aminoglycosides - Streptomycin	16	3	0														2	1									
Amphenicols - Chloramphenicol	16	3	0													2	1										
Cephalosporins - Cefotaxime	0.5	3	0							3																	
Fluoroquinolones - Ciprofloxacin	0.06	3	0				2		1																		
Penicillins - Ampicillin	4	3	0											3													
Quinolones - Nalidixic acid	16	3	0													3											
Trimethoprim	2	3	0										3														
Cephalosporins - Ceftazidim	2	3	0									3															
Sulfonamides - Sulfamethoxazole	256	3	0																2	1							
Tetracyclines	8	3	0												3												

S. Montevideo	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Montevideo* in Meat from broilers (*Gallus gallus*) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

<b>S. Montevideo</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Monitoring	
	6	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 104 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

DT 104	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	1																	1								
Amphenicols - Chloramphenicol	16	1	1																1									
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT 104	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	7	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 104 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

<b>DT 104</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	7	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

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

S. 6,7:-:1,5	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	14																											
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	3	0										3															
Aminoglycosides - Streptomycin	16	3	3																1	2								
Amphenicols - Chloramphenicol	16	3	0														1	2										
Cephalosporins - Cefotaxime	0.5	3	0							1		2																
Fluoroquinolones - Ciprofloxacin	0.06	3	3										1	2														
Penicillins - Ampicillin	4	3	1											1	1				1									
Quinolones - Nalidixic acid	16	3	3																	3								
Trimethoprim	2	3	0										2	1														
Cephalosporins - Ceftazidim	2	3	0									1	1	1														
Sulfonamides - Sulfamethoxazole	256	3	3																							3		
Tetracyclines	8	3	3																	3								

S. 6,7:-:1,5	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	14	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

<b>S. 6,7:-:1,5</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring	
	14	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Typhimurium - DT 193 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

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

DT 193	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	1																1									
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	1																	1								
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	1																1									
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT 193  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Antimicrobials:		
	2	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 193 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

<b>DT 193</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	2	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 4b in *Gallus gallus* (fowl) - unspecified - day-old chicks - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

PT 4b	Gallus gallus (fowl) - unspecified - day-old chicks - at farm - Clinical investigations																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0													1											
Amphenicols - Chloramphenicol	16	1	0													1											
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0												1												
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																1								
Tetracyclines	8	1	0												1												

PT 4b	Gallus gallus (fowl) - unspecified - day-old chicks - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 4b in *Gallus gallus* (fowl) - unspecified - day-old chicks - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>PT 4b</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - unspecified - day-old chicks - at farm - Clinical investigations	
	2	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]**

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

rough	Meat from pig - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

rough	Meat from pig - fresh - at slaughterhouse - Monitoring	
	9	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128

Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in Meat from pig - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

rough  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from pig - fresh - at slaughterhouse - Monitoring	
	9	
Antimicrobials:	lowest	highest
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

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

DT 193	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT 193	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	11	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

<b>DT 193</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	11	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 35 in Meat from broilers (*Gallus gallus*) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]**

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

PT 35	Meat from broilers (Gallus gallus) - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

PT 35	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Monitoring	
Antimicrobials:	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 35 in Meat from broilers (*Gallus gallus*) - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - neck skin - quantitative data [Dilution method]

<b>PT 35</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Monitoring	
	2	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Indiana* in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

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

S. Indiana	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

S. Indiana	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	14	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of *S. Indiana* in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

<b>S. Indiana</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	14	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 193 in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]**

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

DT 193	Meat from bovine animals - fresh - at slaughterhouse - Monitoring																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	1																	1								
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT 193	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 193 in Meat from bovine animals - fresh - at slaughterhouse - Monitoring - Objective sampling - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]**

<b>DT 193</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Meat from bovine animals - fresh - at slaughterhouse - Monitoring	
	2	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Kentucky in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Kentucky	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	4	4															2	2									
Aminoglycosides - Streptomycin	16	4	4																1	3								
Amphenicols - Chloramphenicol	16	4	0													3	1											
Cephalosporins - Cefotaxime	0.5	4	0								4																	
Fluoroquinolones - Ciprofloxacin	0.06	4	4														4											
Penicillins - Ampicillin	4	4	4																4									
Quinolones - Nalidixic acid	16	4	4																	4								
Trimethoprim	2	4	0										4															
Cephalosporins - Ceftazidim	2	4	0										1	3														
Sulfonamides - Sulfamethoxazole	256	4	4																						4			
Tetracyclines	8	4	4																	4								

Table Antimicrobial susceptibility testing of *S. Kentucky* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Kentucky</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	22	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Kentucky* in Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - organ/tissue - quantitative data [Dilution method]**

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

S. Kentucky	Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes																									
	22																									
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Aminoglycosides - Gentamicin	2	3	2										1			2										
Aminoglycosides - Streptomycin	16	3	0														1	2								
Amphenicols - Chloramphenicol	16	3	0													3										
Cephalosporins - Cefotaxime	0.5	3	0								3															
Fluoroquinolones - Ciprofloxacin	0.06	3	3														3									
Penicillins - Ampicillin	4	3	3																3							
Quinolones - Nalidixic acid	16	3	3																	3						
Trimethoprim	2	3	0										3													
Cephalosporins - Ceftazidim	2	3	0										3													
Sulfonamides - Sulfamethoxazole	256	3	2															1							2	
Tetracyclines	8	3	2											1						2						

**Table Antimicrobial susceptibility testing of S. Kentucky in Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - organ/tissue - quantitative data [Dilution method]**

S. Kentucky	Turkeys - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	22	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Kentucky in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Kentucky	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	22																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	2															2										
Aminoglycosides - Streptomycin	16	2	2																	2								
Amphenicols - Chloramphenicol	16	2	0													1	1											
Cephalosporins - Cefotaxime	0.5	2	0								2																	
Fluoroquinolones - Ciprofloxacin	0.06	2	2														2											
Penicillins - Ampicillin	4	2	2																2									
Quinolones - Nalidixic acid	16	2	2																	2								
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0										2															
Sulfonamides - Sulfamethoxazole	256	2	2																							2		
Tetracyclines	8	2	2																	2								

**Table Antimicrobial susceptibility testing of S. Kentucky in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Kentucky</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
	22	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Newport in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	5	0										4	1														
Aminoglycosides - Streptomycin	16	5	1														2	2		1								
Amphenicols - Chloramphenicol	16	5	0													2	3											
Cephalosporins - Cefotaxime	0.5	5	0							1	4																	
Fluoroquinolones - Ciprofloxacin	0.06	5	3				2				2		1															
Penicillins - Ampicillin	4	5	5																5									
Quinolones - Nalidixic acid	16	5	3													2			1	2								
Trimethoprim	2	5	0										5															
Cephalosporins - Ceftazidim	2	5	0									1	4															
Sulfonamides - Sulfamethoxazole	256	5	0																1	4								
Tetracyclines	8	5	5																	5								

**Table Antimicrobial susceptibility testing of S. Newport in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Newport</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
	10	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Lille in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	6	0										6															
Aminoglycosides - Streptomycin	16	6	0														6											
Amphenicols - Chloramphenicol	16	6	0													6												
Cephalosporins - Cefotaxime	0.5	6	1								5					1												
Fluoroquinolones - Ciprofloxacin	0.06	6	0				6																					
Penicillins - Ampicillin	4	6	1											5					1									
Quinolones - Nalidixic acid	16	6	0													6												
Trimethoprim	2	6	0										6															
Cephalosporins - Ceftazidim	2	6	1										5					1										
Sulfonamides - Sulfamethoxazole	256	6	0																5	1								
Tetracyclines	8	6	0												6													

**Table Antimicrobial susceptibility testing of S. Lille in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Lille</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	9	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Choleraesuis* in Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

S. Choleraesuis	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

S. Choleraesuis	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	4	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Choleraesuis* in Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>S. Choleraesuis</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations	
	4	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Stanley in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Stanley	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	7	0										6	1														
Aminoglycosides - Streptomycin	16	7	0													1	5	1										
Amphenicols - Chloramphenicol	16	7	0													1	6											
Cephalosporins - Cefotaxime	0.5	7	0							7																		
Fluoroquinolones - Ciprofloxacin	0.06	7	7								5	2																
Penicillins - Ampicillin	4	7	0											5	2													
Quinolones - Nalidixic acid	16	7	7																	7								
Trimethoprim	2	7	0										7															
Cephalosporins - Ceftazidim	2	7	0									7																
Sulfonamides - Sulfamethoxazole	256	7	0																5	2								
Tetracyclines	8	7	0											1	5	1												

**Table Antimicrobial susceptibility testing of S. Stanley in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Stanley</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
	16	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Derby* in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]**

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

S. Derby	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	3	0										2	1													
Aminoglycosides - Streptomycin	16	3	0														2	1									
Amphenicols - Chloramphenicol	16	3	0														3										
Cephalosporins - Cefotaxime	0.5	3	0								3																
Fluoroquinolones - Ciprofloxacin	0.06	3	0				1		2																		
Penicillins - Ampicillin	4	3	1											2					1								
Quinolones - Nalidixic acid	16	3	0													3											
Trimethoprim	2	3	0										2	1													
Cephalosporins - Ceftazidim	2	3	0										3														
Sulfonamides - Sulfamethoxazole	256	3	0																2	1							
Tetracyclines	8	3	0												3												

**Table Antimicrobial susceptibility testing of S. Derby in Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]**

<b>S. Derby</b>          Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
	38	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of S. Tennessee in Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Industry sampling - 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 - adult - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	1															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0														1											

S. Tennessee	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Tennessee* in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]

<b>S. Tennessee</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	1	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Montevideo in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0											2														
Aminoglycosides - Streptomycin	16	2	0														2											
Amphenicols - Chloramphenicol	16	2	0													2												
Cephalosporins - Cefotaxime	0.5	2	0							2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																1	1								
Tetracyclines	8	2	0												2													

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Montevideo</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	6	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. 6,7:-:1,5	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	14																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	2																	1	1							
Amphenicols - Chloramphenicol	16	2	0													1	1											
Cephalosporins - Cefotaxime	0.5	2	0							1	1																	
Fluoroquinolones - Ciprofloxacin	0.06	2	2									1	1															
Penicillins - Ampicillin	4	2	0										1	1														
Quinolones - Nalidixic acid	16	2	2																	2								
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									1	1															
Sulfonamides - Sulfamethoxazole	256	2	2																							2		
Tetracyclines	8	2	2																	2								

Table Antimicrobial susceptibility testing of S. 6,7:-:1,5 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

S. 6,7:-:1,5  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	14	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of S. Gallinarum biovar Pullorum in Gallus gallus (fowl) - unspecified - day-old chicks - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]**

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

S. Gallinarum biovar Pullorum	Gallus gallus (fowl) - unspecified - day-old chicks - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0									1	1															
Aminoglycosides - Streptomycin	16	2	0														1	1										
Amphenicols - Chloramphenicol	16	2	0														1	1										
Cephalosporins - Cefotaxime	0.5	2	0							2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0														2											
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																2									
Tetracyclines	8	2	0												2													

S. Gallinarum biovar Pullorum	Gallus gallus (fowl) - unspecified - day-old chicks - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Gallinarum* biovar Pullorum in *Gallus gallus* (fowl) - unspecified - day-old chicks - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>S. Gallinarum biovar Pullorum</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Gallus gallus (fowl) - unspecified - day-old chicks - at farm - Clinical investigations	
	4	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - 1b in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

1b	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	1																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0													1												
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Enteritidis* - 1b in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>1b</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	1	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 59 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 59	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0												1													
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 59 in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

PT 59   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	1	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

PT 8	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	3	0										2	1														
Aminoglycosides - Streptomycin	16	3	0													3												
Amphenicols - Chloramphenicol	16	3	0													2	1											
Cephalosporins - Cefotaxime	0.5	3	0							2	1																	
Fluoroquinolones - Ciprofloxacin	0.06	3	0				2		1																			
Penicillins - Ampicillin	4	3	0											2	1													
Quinolones - Nalidixic acid	16	3	0													3												
Trimethoprim	2	3	0										3															
Cephalosporins - Ceftazidim	2	3	0									3																
Sulfonamides - Sulfamethoxazole	256	3	0																1	2								
Tetracyclines	8	3	0												3													

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

<b>PT 8</b>          Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
	204	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]**

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

PT 8	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										1	1														
Aminoglycosides - Streptomycin	16	2	0													1	1											
Amphenicols - Chloramphenicol	16	2	0														2											
Cephalosporins - Cefotaxime	0.5	2	0							1	1																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				1		1																			
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																2									
Tetracyclines	8	2	0												2													

PT 8	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]

<b>PT 8</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	204	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Typhimurium - DT 120 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

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

DT 120	Pigs - fattening pigs - unspecified - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	1																	1								

DT 120	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Typhimurium* - DT 120 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

DT 120  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	3	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 13a in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]**

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

PT 13a	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	2	0										2														
Aminoglycosides - Streptomycin	16	2	0													2											
Amphenicols - Chloramphenicol	16	2	0													2											
Cephalosporins - Cefotaxime	0.5	2	0							2																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				1		1																		
Penicillins - Ampicillin	4	2	0											1	1												
Quinolones - Nalidixic acid	16	2	0													2											
Trimethoprim	2	2	0										2														
Cephalosporins - Ceftazidim	2	2	0									2															
Sulfonamides - Sulfamethoxazole	256	2	0																1	1							
Tetracyclines	8	2	0											1	1												

PT 13a	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 13a in *Gallus gallus* (fowl) - laying hens - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]

PT 13a	Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	5	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - 6c in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

6c	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	10																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	10	0									1	9															
Aminoglycosides - Streptomycin	16	10	0												1	9												
Amphenicols - Chloramphenicol	16	10	0													7	3											
Cephalosporins - Cefotaxime	0.5	10	0							6	4																	
Fluoroquinolones - Ciprofloxacin	0.06	10	0				5		5																			
Penicillins - Ampicillin	4	10	0											5	3	2												
Quinolones - Nalidixic acid	16	10	0													10												
Trimethoprim	2	10	0										10															
Cephalosporins - Ceftazidim	2	10	0									10																
Sulfonamides - Sulfamethoxazole	256	10	0																4	6								
Tetracyclines	8	10	0											2	8													

Table Antimicrobial susceptibility testing of *S. Enteritidis* - 6c in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>6c</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	10	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Typhimurium* - DT 104 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

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

DT 104	Pigs - fattening pigs - unspecified - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	1																	1								
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT 104	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Typhimurium* - DT 104 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

DT 104	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	7	
Antimicrobials:	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 21c in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 21c	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	10																											
	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	10	0									2	8															
Aminoglycosides - Streptomycin	16	10	0													6	4											
Amphenicols - Chloramphenicol	16	10	0													8	2											
Cephalosporins - Cefotaxime	0.5	10	0							8	2																	
Fluoroquinolones - Ciprofloxacin	0.06	10	1				5		4				1															
Penicillins - Ampicillin	4	10	0											7	2	1												
Quinolones - Nalidixic acid	16	10	1													9				1								
Trimethoprim	2	10	1										9						1									
Cephalosporins - Ceftazidim	2	10	0									10																
Sulfonamides - Sulfamethoxazole	256	10	1																4	5					1			
Tetracyclines	8	10	0											2	5	3												

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 21c in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

PT 21c   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	10	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 23 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 23	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	21																											
	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
	Aminoglycosides - Gentamicin	2	9	0									1	5	3													
	Aminoglycosides - Streptomycin	16	9	0													6	3										
	Amphenicols - Chloramphenicol	16	9	0													4	5										
	Cephalosporins - Cefotaxime	0.5	9	0							2	7																
	Fluoroquinolones - Ciprofloxacin	0.06	9	0				5		4																		
	Penicillins - Ampicillin	4	9	0										1	7	1												
	Quinolones - Nalidixic acid	16	9	0													9											
	Trimethoprim	2	9	0										9														
	Cephalosporins - Ceftazidim	2	9	0									3	6														
	Sulfonamides - Sulfamethoxazole	256	9	0															1	2	6							
Tetracyclines	8	9	0											1	7	1												

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 23 in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

PT 23   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	21	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

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

DT 193	Pigs - fattening pigs - unspecified - at farm - Clinical investigations																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	1																		1						
Amphenicols - Chloramphenicol	16	1	0														1										
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																		
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	1																						1		
Tetracyclines	8	1	1																	1							

DT 193	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
	11	
Number of isolates available in the laboratory		
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

<b>DT 193</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	11	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Indiana in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	14																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0											2														
Aminoglycosides - Streptomycin	16	2	0															2										
Amphenicols - Chloramphenicol	16	2	0													1	1											
Cephalosporins - Cefotaxime	0.5	2	0							2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	0				1		1																			
Penicillins - Ampicillin	4	2	0										1		1													
Quinolones - Nalidixic acid	16	2	0													1	1											
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																1		1							
Tetracyclines	8	2	0												2													

Table Antimicrobial susceptibility testing of *S. Indiana* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Indiana</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	14	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Kentucky* in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

S. Kentucky	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																									
	22																									
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Aminoglycosides - Gentamicin	2	1	0											1												
Aminoglycosides - Streptomycin	16	1	0															1								
Amphenicols - Chloramphenicol	16	1	0														1									
Cephalosporins - Cefotaxime	0.5	1	0								1															
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																	
Penicillins - Ampicillin	4	1	1																1							
Quinolones - Nalidixic acid	16	1	0													1										
Trimethoprim	2	1	0										1													
Cephalosporins - Ceftazidim	2	1	0										1													
Sulfonamides - Sulfamethoxazole	256	1	1																						1	
Tetracyclines	8	1	0												1											

**Table Antimicrobial susceptibility testing of S. Kentucky in Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

<b>S. Kentucky</b>	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	22	
<b>Antimicrobials:</b>	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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) - broilers - before slaughter - at farm - Control and eradication programmes																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0														1										
Amphenicols - Chloramphenicol	16	1	0													1											
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0										1														
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																1								
Tetracyclines	8	1	0											1													

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Braenderup</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	1	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Lille* in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]**

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

S. Lille	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

Table Antimicrobial susceptibility testing of *S. Lille* in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Official sampling - animal sample - faeces - quantitative data [Dilution method]

<b>S. Lille</b>          Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
	9	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Stanley in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Stanley	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	0													1	1											
Amphenicols - Chloramphenicol	16	2	0														2											
Cephalosporins - Cefotaxime	0.5	2	0							2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	2								2																	
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	2																	2								
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																1	1								
Tetracyclines	8	2	0												2													

Table Antimicrobial susceptibility testing of S. Stanley in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Stanley</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	16	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Stanley in Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

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

S. Stanley	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	1								1																	
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	1																	1								
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																	1								
Tetracyclines	8	1	0												1													

S. Stanley	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Stanley* in *Gallus gallus* (fowl) - unspecified - adult - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>S. Stanley</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Gallus gallus (fowl) - unspecified - adult - at farm - Clinical investigations	
	16	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Derby in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	38																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0									1	1															
Aminoglycosides - Streptomycin	16	2	0														2											
Amphenicols - Chloramphenicol	16	2	0														2											
Cephalosporins - Cefotaxime	0.5	2	0								1	1																
Fluoroquinolones - Ciprofloxacin	0.06	2	0						2																			
Penicillins - Ampicillin	4	2	0												1	1												
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0										2															
Sulfonamides - Sulfamethoxazole	256	2	0																1		1							
Tetracyclines	8	2	0												1	1												

**Table Antimicrobial susceptibility testing of S. Derby in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	38	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Derby in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

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

S. Derby	Pigs - fattening pigs - unspecified - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	38																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	0															1										
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0								1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0										1															
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	1																	1								

S. Derby	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	38	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of *S. Derby* in Pigs - fattening pigs - unspecified - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - at farm - Clinical investigations	
	38	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Infantis in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - 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 - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	68																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	19	0										17	1	1													
Aminoglycosides - Streptomycin	16	19	18														1		10	5	3							
Amphenicols - Chloramphenicol	16	19	0													1	13	5										
Cephalosporins - Cefotaxime	0.5	19	0								13	6																
Fluoroquinolones - Ciprofloxacin	0.06	19	18						1				14	1		3												
Penicillins - Ampicillin	4	19	2											7	6	4			2									
Quinolones - Nalidixic acid	16	19	18													1				18								
Trimethoprim	2	19	0										18	1														
Cephalosporins - Ceftazidim	2	19	0									3	10	6														
Sulfonamides - Sulfamethoxazole	256	19	18																	1			1			17		
Tetracyclines	8	19	18												1					18								

Table Antimicrobial susceptibility testing of *S. Infantis* in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Infantis</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	68	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Ohio in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

S. Ohio	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	9	0									1	7	1														
Aminoglycosides - Streptomycin	16	9	0													1	8											
Amphenicols - Chloramphenicol	16	9	0													5	4											
Cephalosporins - Cefotaxime	0.5	9	0								9																	
Fluoroquinolones - Ciprofloxacin	0.06	9	0				7		2																			
Penicillins - Ampicillin	4	9	0											9														
Quinolones - Nalidixic acid	16	9	0													9												
Trimethoprim	2	9	0										9															
Cephalosporins - Ceftazidim	2	9	0									2	7															
Sulfonamides - Sulfamethoxazole	256	9	0																5	4								
Tetracyclines	8	9	0												9													

Table Antimicrobial susceptibility testing of *S. Ohio* in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

<b>S. Ohio</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	<i>Gallus gallus</i> (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	16	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Ohio* in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

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

S. Ohio	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes																									
	Isolates out of a monitoring program (yes/no)																									
	Number of isolates available in the laboratory																									
Antimicrobials:	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048
Aminoglycosides - Gentamicin	2	1	0										1													
Aminoglycosides - Streptomycin	16	1	0														1									
Amphenicols - Chloramphenicol	16	1	0													1										
Cephalosporins - Cefotaxime	0.5	1	0							1																
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																			
Penicillins - Ampicillin	4	1	0											1												
Quinolones - Nalidixic acid	16	1	0													1										
Trimethoprim	2	1	0										1													
Cephalosporins - Ceftazidim	2	1	0									1														
Sulfonamides - Sulfamethoxazole	256	1	0																1							
Tetracyclines	8	1	0												1											

**Table Antimicrobial susceptibility testing of S. Ohio in Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes - Census - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

<b>S. Ohio</b>          Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Gallus gallus (fowl) - parent breeding flocks for broiler production line - adult - at farm - Control and eradication programmes	
	16	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. enterica subsp. enterica - rough in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

rough	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	0													1											
Amphenicols - Chloramphenicol	16	1	0														1										
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0											1													
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																	1							
Tetracyclines	8	1	0											1													

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* - rough in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

rough	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
Isolates out of a monitoring program (yes/no)		
Number of isolates available in the laboratory	9	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 8	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	204																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	52	0									1	47	4														
Aminoglycosides - Streptomycin	16	52	0													33	19											
Amphenicols - Chloramphenicol	16	52	0													27	25											
Cephalosporins - Cefotaxime	0.5	52	0							21	30	1																
Fluoroquinolones - Ciprofloxacin	0.06	52	1				34		17				1															
Penicillins - Ampicillin	4	52	0											36	15	1												
Quinolones - Nalidixic acid	16	52	1													50	1			1								
Trimethoprim	2	52	0										52															
Cephalosporins - Ceftazidim	2	52	0									44	8															
Sulfonamides - Sulfamethoxazole	256	52	0																13	37	2							
Tetracyclines	8	52	0											7	37	8												

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>PT 8</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	204	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in *Gallus gallus* (fowl) - parent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

PT 8  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory		Concentration (µg/ml), number of isolates with a concentration of inhibition equal to																											
		Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes																											
		204																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048			
Aminoglycosides - Gentamicin	2	2	0										2																
Aminoglycosides - Streptomycin	16	2	0													2													
Amphenicols - Chloramphenicol	16	2	0														2												
Cephalosporins - Cefotaxime	0.5	2	0								2																		
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																						
Penicillins - Ampicillin	4	2	0												2														
Quinolones - Nalidixic acid	16	2	0													2													
Trimethoprim	2	2	0										2																
Cephalosporins - Ceftazidim	2	2	0										2																
Sulfonamides - Sulfamethoxazole	256	2	0																2										
Tetracyclines	8	2	0												2														

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes - Objective sampling - Industry sampling - animal sample - faeces - quantitative data [Dilution method]**

<b>PT 8</b>          Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Gallus gallus (fowl) - parent breeding flocks for broiler production line - during rearing period - at farm - Control and eradication programmes	
	204	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 8 in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

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

PT 8	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	204																											
	Cut-off value	N	n	≤0.002	≤0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0											1														
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0													1												
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0						1																			
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 8 in Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes - Census - Official sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

<b>PT 8</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	
	204	
	lowest	highest
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Enteritidis - PT 13a in Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

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

PT 13a	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	0										2															
Aminoglycosides - Streptomycin	16	2	0													2												
Amphenicols - Chloramphenicol	16	2	0													2												
Cephalosporins - Cefotaxime	0.5	2	0							1	1																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				1		1																			
Penicillins - Ampicillin	4	2	0											2														
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	0										2															
Cephalosporins - Ceftazidim	2	2	0									2																
Sulfonamides - Sulfamethoxazole	256	2	0																1	1								
Tetracyclines	8	2	0												2													

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 13a in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

PT 13a   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	5	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 1 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations**  
**- animal sample - faeces - quantitative data [Dilution method]**

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

PT 1	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	0														1											
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	0											1														
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	0																1									
Tetracyclines	8	1	0												1													

PT 1	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
	1	
Antimicrobials:	lowest	highest
	Aminoglycosides - Gentamicin	0.25 32

**Table Antimicrobial susceptibility testing of S. Enteritidis - PT 1 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

PT 1	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
<b>Antimicrobials:</b>		
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. Typhimurium - DT 104 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]

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

DT 104	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	7																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	2	1										1						1									
Aminoglycosides - Streptomycin	16	2	2																		2							
Amphenicols - Chloramphenicol	16	2	2																	2								
Cephalosporins - Cefotaxime	0.5	2	0							1	1																	
Fluoroquinolones - Ciprofloxacin	0.06	2	0				2																					
Penicillins - Ampicillin	4	2	2																2									
Quinolones - Nalidixic acid	16	2	0													2												
Trimethoprim	2	2	1										1						1									
Cephalosporins - Ceftazidim	2	2	0									1	1															
Sulfonamides - Sulfamethoxazole	256	2	2																						2			
Tetracyclines	8	2	2																1	1								

DT 104	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	Isolates out of a monitoring program (yes/no)	
	Number of isolates available in the laboratory	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32

**Table Antimicrobial susceptibility testing of S. Typhimurium - DT 104 in Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations - animal sample - faeces - quantitative data [Dilution method]**

<b>DT 104</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Cattle (bovine animals) - calves (under 1 year) - at farm - Clinical investigations	
	7	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

**Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 4b in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]**

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

PT 4b	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes																										
	Isolates out of a monitoring program (yes/no)																										
	Number of isolates available in the laboratory																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	2	1	0										1														
Aminoglycosides - Streptomycin	16	1	1																		1						
Amphenicols - Chloramphenicol	16	1	0												1												
Cephalosporins - Cefotaxime	0.5	1	0							1																	
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																				
Penicillins - Ampicillin	4	1	0										1														
Quinolones - Nalidixic acid	16	1	0													1											
Trimethoprim	2	1	0										1														
Cephalosporins - Ceftazidim	2	1	0									1															
Sulfonamides - Sulfamethoxazole	256	1	0																	1							
Tetracyclines	8	1	0											1													

Table Antimicrobial susceptibility testing of *S. Enteritidis* - PT 4b in *Gallus gallus* (fowl) - broilers - before slaughter - at farm - Control and eradication programmes - Census - Industry sampling - environmental sample - boot swabs - quantitative data [Dilution method]

PT 4b   Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory	Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	
	2	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin	0.25	32
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations - animal sample - organ/tissue - quantitative data [Dilution method]

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

DT 193	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations																											
	Isolates out of a monitoring program (yes/no)																											
	Number of isolates available in the laboratory																											
	11																											
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Aminoglycosides - Gentamicin	2	1	0										1															
Aminoglycosides - Streptomycin	16	1	1																		1							
Amphenicols - Chloramphenicol	16	1	0														1											
Cephalosporins - Cefotaxime	0.5	1	0							1																		
Fluoroquinolones - Ciprofloxacin	0.06	1	0				1																					
Penicillins - Ampicillin	4	1	1																1									
Quinolones - Nalidixic acid	16	1	0													1												
Trimethoprim	2	1	0										1															
Cephalosporins - Ceftazidim	2	1	0									1																
Sulfonamides - Sulfamethoxazole	256	1	1																						1			
Tetracyclines	8	1	1																	1								

DT 193	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations	
Isolates out of a monitoring program (yes/no)		
	11	
Antimicrobials:	lowest	highest
	0.25	32
Aminoglycosides - Gentamicin	0.25	32

Table Antimicrobial susceptibility testing of S. 1,4,[5],12:i:- - DT 193 in Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations  
- animal sample - organ/tissue - quantitative data [Dilution method]

<b>DT 193</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory  <b>Antimicrobials:</b>	Pigs - fattening pigs - unspecified - piglets - at farm - Clinical investigations	
	11	
	lowest	highest
Aminoglycosides - Streptomycin	2	128
Amphenicols - Chloramphenicol	2	64
Cephalosporins - Cefotaxime	0.06	4
Fluoroquinolones - Ciprofloxacin	0.008	8
Penicillins - Ampicillin	0.5	32
Quinolones - Nalidixic acid	4	64
Trimethoprim	0.5	32
Cephalosporins - Ceftazidim	0.25	16
Sulfonamides - Sulfamethoxazole	8	1024
Tetracyclines	1	64



Test Method Used	Standard methods used for testing

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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 <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		32	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.5	
Fluoroquinolones	Ciprofloxacin		0.06	
Penicillins	Ampicillin		4	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

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 <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		32	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.5	
Fluoroquinolones	Ciprofloxacin		0.06	
Penicillins	Ampicillin		4	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

## 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

State Veterinary Administration (SVA) of the Czech Republic launched monitoring of occurrence of thermophilic Campylobacter in poultry in the year 2005. This monitoring was also carried out from 2006 to 2012. The main purpose is the monitoring of thermophilic Campylobacter incidence and their antibiotic resistance. The caecum samples of broilers were taken at the slaughterhouses in 2012. The slaughterhouses were selected so that the entire area of the Czech Republic was covered, if possible. To deal with seasonal prevalence, samples were collected in slaughterhouses monthly throughout the entire calendar year. The partner of the EU-RL in Uppsala is the State Veterinary Institute Olomouc.

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

The prevalence of human campylobacteriosis was relatively similar to the last year.

##### Recent actions taken to control the zoonoses

The monitoring of the prevalence and antibiotics resistance of thermotolerant Campylobacter spp. in broilers.

## 2.2.2 Campylobacteriosis in humans

### A. Thermophilic Campylobacter in humans

#### Reporting system in place for the human cases

Infectious diseases (all infections including parasitary) are notified on legal basis (20/1966, 258/2000.) Any physician is obliged to notify the diagnosed disease and data are collected by the net of Regional Public Health Institutes with their district branch offices. The data are centrally collected and processed by the National Institute of Public health.

#### Case definition

Clinical picture compatible with campylobacteriosis, e.g. diarrhoeal illness of variable severity.

#### Notification system in place

Infectious diseases (all infections including parasitary) are notified on legal basis. (20/1966, 258/2000) Any physician is obliged to notify the diagnosed disease and data are collected by the net of Regional Public Health Institutes with their district branch offices. The data are centrally collected and processed by the National Institute of Public health.

#### History of the disease and/or infection in the country

Campylobacter is routinely diagnosed only in recent years and we observe typical seasonal variation in its incidence. The increasing trend in incidence was partly due to spread of diagnostic in all country.

Campylobacterioses have importance comparable with salmonellosis.

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

The highest increase in morbidity is recorded for the lowest age groups that is indicative of worsening conditions in food processing (particularly in households). Almost three fourths of cases were infected via poultry products.

### 2.2.3 Campylobacter in foodstuffs

#### A. Thermophilic Campylobacter in Broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

## Table Campylobacter in poultry meat

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Campylobacter	C. coli	C. jejuni
Meat from broilers (Gallus gallus) - fresh - at retail	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Single	25g	30	0		
Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring	SVA	Census	Official sampling	animal sample > caecum	Domestic	Batch	25g	125	75	20	55

	C. lari	C. upsaliensis	Thermophilic Campylobact er spp., unspecified
Meat from broilers (Gallus gallus) - fresh - at retail			
Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring			

## 2.2.4 Campylobacter in animals

### A. Thermophilic Campylobacter in Gallus gallus

#### Monitoring system

##### Sampling strategy

The State Veterinary Administration (SVA) in the Czech Republic has introduced monitoring of thermophilic Campylobacter in poultry since September 2005. Monitoring was also carried out from 2006 to 2012. Samples are taken at slaughterhouses from poultry at random. Sampling is done by official veterinary inspector every month. From 2008 ten caecum samples are taken at slaughterhouses. The samples are put into plastic bags. One slaughter batch equals 10 caecums. After collecting the samples, they are kept chilled and they are sent to the accredited laboratories of the State Veterinary Institutes within 24 hours. The monitoring system is in accordance to the Methodology Instruction of SVA.

##### Frequency of the sampling

At slaughter

Once a month

##### Type of specimen taken

At slaughter

Caecum

##### Methods of sampling (description of sampling techniques)

At slaughter

Samples of caecum are taken at slaughterhouses at random. Samples are cooled and delivered to the lab within 24 hours. Sampling is done by official veterinary inspector every month throughout the entire calendar year.

Monitoring system follows the Methodology Instruction of SVA. The slaughterhouses were selected so that the entire area of the Czech Republic was covered, if possible.

##### Case definition

At slaughter

Positive result of the bacteriological test.

##### Diagnostic/analytical methods used

At slaughter

CSN EN ISO 10272-1:2006,

##### Notification system in place

The official laboratory (State Veterinary Institute) notifies the positive sample to RVA.

##### Results of the investigation

Investigation is performed in the state laboratories accredited in accordance with CSN ISO EN 17025:2005. Results of investigation are sent in the form of lab test report to the SVA.



## 2.2.5 Antimicrobial resistance in *Campylobacter* isolates

### A. Antimicrobial resistance in *Campylobacter jejuni* and *coli* in poultry

#### Sampling strategy used in monitoring

##### Frequency of the sampling

Caecum of broilers was taken once a month. Resistance to selected antibiotics was tested for the isolates of *Campylobacter* spp.

##### Type of specimen taken

The isolates of *Campylobacter jejuni* and *Campylobacter coli*.

##### Methods used for collecting data

Strain isolates of thermophilic *Campylobacter* are collected and sent to the only state laboratory, where they are centrally investigated for antimicrobial resistance. The monitoring of antibiotics resistance was carried out only by the State Veterinary Institute Olomouc (NRL for *Campylobacter*).

#### Laboratory methodology used for identification of the microbial isolates

Bacteriological examination was in accordance with the ISO 10272-1:2006. To confirm suspected isolates, the PCR methods described by Ertas and Lund (Ertas et al., 2002, Lund et al., 2004) and commercial real-time PCR kit (Taq Man *Campylobacter* spp. Kit, Applied Biosystems) were used. The identification of *Campylobacter* by MALDI-TOF method started in autumn 2010. For quality control, the *C. jejuni* ATCC 33560 reference strain was used.

#### Laboratory used for detection for resistance

##### Antimicrobials included in monitoring

Erythromycin, ciprofloxacin, tetracycline, streptomycin, gentamicin, chloramphenicol, nalidixic acid.

##### Cut-off values used in testing

See the appropriate table.

#### Notification system in place

The results of the antibiotic resistance of the isolates were notified to the SVA.

#### Results of the investigation

The highest detected resistance was to quinolone antibiotics.

Table Antimicrobial susceptibility testing of Campylobacter in Meat from broilers (Gallus gallus)

Campylobacter  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	C. coli		C. jejuni		Campylobacter spp., unspecified	
	yes		yes			
	17		39		0	
Antimicrobials:	N	n	N	n	N	n
Aminoglycosides - Gentamicin	17	1	39	1		
Fluoroquinolones - Ciprofloxacin	17	16	39	33		
Macrolides - Erythromycin	17	0	39	0		
Quinolones - Nalidixic acid	17	13	39	30		
Tetracyclines - Tetracycline	17	7	39	14		
Fully sensitive	17	0	39	3		
Resistant to 1 antimicrobial	17	2	39	4		
Resistant to 2 antimicrobials	17	3	39	11		
Resistant to 3 antimicrobials	17	5	39	11		
Resistant to 4 antimicrobials	17	4	39	6		
Resistant to >4 antimicrobials	17	3	39	4		
Aminoglycosides - Streptomycin	17	7	39	7		

**Table Antimicrobial susceptibility testing of *C. coli* in Meat from broilers (*Gallus gallus*) - carcase - at slaughterhouse - Monitoring - active - Census - Official sampling - animal sample - caecum - quantitative data [Dilution method]**

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

C. coli	Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring - active																											
	yes																											
	17																											
	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048		
Antimicrobials:																												
Aminoglycosides - Gentamicin	2	17	1						1	1	5	4	5		1													
Aminoglycosides - Streptomycin	4	17	7									2	2	3	3	3			2	1		1						
Fluoroquinolones - Ciprofloxacin	1	17	16								1			1	1	2	2	7	2		1							
Quinolones - Nalidixic acid	32	17	13									1			1	1		1	6	2	2	3						
Tetracyclines - Tetracycline	2	17	7						1	1	2		3	2	1		2			3	2							
Macrolides - Erythromycin	16	17	0				2			4	6	2	1	1	1													

C. coli	Meat from broilers ( <i>Gallus gallus</i> ) - carcase - at slaughterhouse - Monitoring - active	
	yes	
	17	
	lowest	highest
Antimicrobials:		
Aminoglycosides - Gentamicin		
Aminoglycosides - Streptomycin		
Fluoroquinolones - Ciprofloxacin		
Quinolones - Nalidixic acid		
Tetracyclines - Tetracycline		
Macrolides - Erythromycin		

Table Antimicrobial susceptibility testing of C. coli in Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring - active - Census - Official sampling - animal sample - caecum - quantitative data [Dilution method]

**Table Antimicrobial susceptibility testing of *C. jejuni* in Meat from broilers (*Gallus gallus*) - carcase - at slaughterhouse - Monitoring - active - Census - Official sampling - animal sample - caecum - quantitative data [Dilution method]**

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

C. jejuni	Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Monitoring - active																										
	yes																										
	39																										
Antimicrobials:	Cut-off value	N	n	<=0.002	<=0.004	0.008	0.015	0.016	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	>4096	1024	2048	
Aminoglycosides - Gentamicin	1	39	1						1	9	7	9	8	4	1												
Aminoglycosides - Streptomycin	2	39	7								1	1	7	16	7	5	1					1					
Fluoroquinolones - Ciprofloxacin	1	39	33						1		1	2	2		1	3	1	6	19	2		1					
Quinolones - Nalidixic acid	16	39	30										1		1	3	2	2		10	13	3	4				
Tetracyclines - Tetracycline	2	39	14								5	3	9	7	1	1	1	1	1	2	3	5					
Macrolides - Erythromycin	4	39	0				5		5	14	9	5		1													

<b>C. jejuni</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory	Meat from broilers ( <i>Gallus gallus</i> ) - carcase - at slaughterhouse - Monitoring - active	
	yes	
	39	
Antimicrobials:	lowest	highest
Aminoglycosides - Gentamicin		
Aminoglycosides - Streptomycin		
Fluoroquinolones - Ciprofloxacin		
Quinolones - Nalidixic acid		
Tetracyclines - Tetracycline		
Macrolides - Erythromycin		

Table Antimicrobial susceptibility testing of *C. jejuni* in Meat from broilers (*Gallus gallus*) - carcase - at slaughterhouse - Monitoring - active - Census - Official sampling - animal sample - caecum - quantitative data [Dilution method]

Table Cut-off values used for antimicrobial susceptibility testing of *C. coli* in Animals

Test Method Used		Standard methods used for testing		
			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin	NON-EFSA		
	Streptomycin	NON-EFSA		
Fluoroquinolones	Ciprofloxacin	NON-EFSA		
Macrolides	Erythromycin	NON-EFSA		
Tetracyclines	Tetracycline	NON-EFSA		

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 <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		4	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		16	
Tetracyclines	Tetracycline		2	



Table Cut-off values used for antimicrobial susceptibility testing of *C. coli* in Food

Test Method Used		Standard methods used for testing		
Broth dilution		EURL-AR		

  

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin	EFSA	2	
	Streptomycin	EFSA	4	
Fluoroquinolones	Ciprofloxacin	EFSA	1	
Macrolides	Erythromycin	EFSA	16	
Quinolones	Nalidixic acid		32	
Tetracyclines	Tetracycline	EFSA	2	

Table Cut-off values used for antimicrobial susceptibility testing of *C. jejuni* in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin	NON-EFSA		
	Streptomycin	NON-EFSA		
Fluoroquinolones	Ciprofloxacin	NON-EFSA		
Macrolides	Erythromycin	NON-EFSA		
Tetracyclines	Tetracycline	NON-EFSA		

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 <=
Aminoglycosides	Gentamicin		1	
	Streptomycin		2	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		4	
Tetracyclines	Tetracycline		2	

Table Cut-off values used for antimicrobial susceptibility testing of *C. jejuni* in Food

Test Method Used		Standard methods used for testing		
Broth dilution		EURL-AR		

  

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin	EFSA	1	
	Streptomycin	EFSA	2	
Fluoroquinolones	Ciprofloxacin	EFSA	1	
Macrolides	Erythromycin	EFSA	4	
Quinolones	Nalidixic acid		16	
Tetracyclines	Tetracycline	EFSA	2	

## 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

There is no official National program for monitoring of listeriosis at animals. Czech Agriculture and Food Inspection Authority (CAFIA) performed control at retail. State Veterinary Administration (SVA) carry out monitoring of listeriosis in foodstuffs of animal origin in food producing establishments in accordance with Commission Regulation (EC) No 2073/2005 on microbiological criteria for foodstuffs.

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

*Listeria monocytogenes* in foodstuffs of animal origin were the main source of infection. The prevalence of human listeriosis was relatively similar to the last year.

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

There are relevance of the findings in foodstuffs as a source of infection to human cases. Sources of infection are just foodstuffs of animal origin. Findings in human populations were sporadic in the last year.

##### Additional information

In accordance with Regulation (EC) 2073/2005 in 2006 was putting into practice the bacteriological detection of *Listeria monocytogenes* performed by State Veterinary Administration. The investigation was made by the detection method, this method is more sensible than the enumeration method. For presence or absence *L. monocytogenes* in 25 g is using EN/ISO 11290-1.

## 2.3.2 Listeria in foodstuffs

### A. L. monocytogenes in food - Other food - at retail - official food or feed controls - random sampling

#### Monitoring system

##### Sampling strategy

CAFIA performed control at retail according to Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs (as amended by EU regulation No. 1441/2007, Regulation No. 365/2010 and Regulation No. 1086/2011).

Samples were collected by competent authority as part of an official sampling from all 14 regions of the Czech Republic within a year by the inspectors from the Regional inspectorates and analysed in designated laboratories for analysis samples taken during official controls (Article 12, Regulation (EC) No 882/2004). The sampling by CAFIA was random. However, in case of consumer complaints the sampling was targeted.

##### Frequency of the sampling

###### At the production plant

depend on the HACCP and on the survey

###### At retail

Sampling distributed evenly throughout the year

##### Type of specimen taken

###### At the production plant

Raw materials and final products.

###### At retail

Final products.

##### Methods of sampling (description of sampling techniques)

###### At the production plant

Final products must be placed aseptically into a sample container and transfer to the laboratory. The number of subsamples have been taken in accordance with Regulation (EC) No 2073/2005.

###### At retail

Final product of one hundred grams minimum each was taken in a sterile way, into clean and dry plastic bag. The samples were placed into refrigerated container and immediately sent to the laboratory for investigation. The numbers of subsamples were taken in particular food categories according to a sampling plan which is given to the Chapter 1 Food safety criteria of Commission Regulation (EC) No 2073/2005:

Sampling plan n=5 for ready-to-eat foods able or unable to support the growth of *L. monocytogenes*, other than those intended for infants and for special medical purposes was taken;

Sampling plan n=10 for ready-to-eat foods intended for infants was taken.

##### Definition of positive finding

###### At the production plant

The positive batch means the presence *L. monocytogenes* in 25 g only in one of all subsamples.

At retail

A batch was considered to be positive where *L. monocytogenes* has been isolated in amount more than 100 CFU in 1g from at least one subsample taken out of the batch.

Diagnostic/analytical methods used

At the production plant

EN ISO 11290 parts 1 and 2

At retail

EN ISO 11290 parts 1 and 2

Preventive measures in place

Controls of HACCP, GMP and GHP systems

Control program/mechanisms

The control program/strategies in place

The control programs/ strategies in place: check of records and documents within the HACCP system

Measures in case of the positive findings

On the basis of positive finding, the whole batch is recalled from circulation. A fine is imposed on the food business operator and he/she is ordered to remove the causes and to take such measures that would prevent recurrence of pathogens.

Results of the investigation

See table *Listeria* in other foods.

Table *Listeria monocytogenes* in milk and dairy products

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	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
Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance	SVA	Objective sampling	Official sampling	food sample > milk	Domestic	Batch	25ml	53	2	53	2
Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample > milk	Unknown	Batch	25ml	1	0	1	0
Milk, cows' - pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample > milk	Unknown	Batch	25ml	98	0	98	0
Milk, goats' - raw milk - intended for direct human consumption - at farm - Surveillance	SVA	Objective sampling	Official sampling	food sample > milk	Domestic	Batch	25ml	3	0	3	0
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	5	0	5	0
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	995	0	945	0
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	85	0		
Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	42	0	26	0
Cheeses made from cows' milk - hard - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	110	0	105	0
Cheeses made from goats' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	5	0	5	0



Table *Listeria monocytogenes* in milk and dairy products

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	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
Cheeses made from goats' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	40	0	35	0
Cheeses made from goats' milk - hard - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	20	0	20	0
Cheeses made from sheep's milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	14	0	9	0
Cheeses made from sheep's milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	16	0	11	0
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	71	0	61	0
Dairy products (excluding cheeses) - cream - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	36	0	26	0
Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	60	0	50	0
Dairy products (excluding cheeses) - fermented dairy products - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	128	0	61	0
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	9	0	1	0

Table *Listeria monocytogenes* in milk and dairy products

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for L. monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	25	0	25	0
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	13	0		
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	34	0	29	0
Dairy products (excluding cheeses) - probiotic drinks - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	5	0	5	0
Dairy products (excluding cheeses) - whey - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	5	0	5	0
Dairy products (excluding cheeses) - yoghurt - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	25	0	20	0
Dairy products, unspecified - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	270	0	110	0

	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance			
Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - Surveillance			

Table *Listeria monocytogenes* in milk and dairy products

	Units tested with enumeration method	> detection limit but ≤ 100 cfu/g	L. monocytogen es > 100 cfu/g
Milk, cows' - pasteurised milk - at processing plant - Surveillance			
Milk, goats' - raw milk - intended for direct human consumption - at farm - Surveillance			
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance			
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance	50	0	0
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance	85	0	0
Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - at processing plant - Surveillance	16	0	0
Cheeses made from cows' milk - hard - made from pasteurised milk - at processing plant - Surveillance	5	0	0
Cheeses made from goats' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance			
Cheeses made from goats' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance	5	0	0
Cheeses made from goats' milk - hard - made from pasteurised milk - at processing plant - Surveillance			

Table *Listeria monocytogenes* in milk and dairy products

	Units tested with enumeration method	> detection limit but ≤ 100 cfu/g	L. monocytogen es > 100 cfu/g
Cheeses made from sheep's milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance	5	0	0
Cheeses made from sheep's milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance	5	0	0
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at processing plant - Surveillance	10	0	0
Dairy products (excluding cheeses) - cream - made from pasteurised milk - at processing plant - Surveillance	10	0	0
Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - at processing plant - Surveillance	10	0	0
Dairy products (excluding cheeses) - fermented dairy products - at processing plant - Surveillance	67	0	0
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at processing plant - Surveillance	8	0	0
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at processing plant - Surveillance			
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at retail - Surveillance	13	0	0

Table Listeria monocytogenes in milk and dairy products

	Units tested with enumeration method	> detection limit but ≤ 100 cfu/g	L. monocytogen es > 100 cfu/g
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance	5	0	0
Dairy products (excluding cheeses) - probiotic drinks - at processing plant - Surveillance			
Dairy products (excluding cheeses) - whey - at processing plant - Surveillance			
Dairy products (excluding cheeses) - yoghurt - at processing plant - Surveillance	5	0	0
Dairy products, unspecified - at processing plant - Surveillance	160	0	0

Table *Listeria monocytogenes* in other foods

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	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
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	170	2	155	2
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	18	0		
Meat from pig - fresh - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	4	0	4	0
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	2111	42	1622	37
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	73	0		
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	2	0	2	0
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	883	0	697	0
Fish - smoked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	30	0	30	0
Fish - smoked - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	39	0		
Molluscan shellfish - cooked - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	5	0	5	0
Infant formula - at retail - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	2	0	2	0

Table *Listeria monocytogenes* in other foods

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	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
Other processed food products and prepared dishes - sandwiches - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	47	0		
Vegetables - pre-cut - ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	16	0		
Fruits - pre-cut - ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	1	0		
Chocolate - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	5	0		
Confectionery products and pastes - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	278	0	48	0
Confectionery products and pastes - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	32	0		
Fish - smoked - at retail - Surveillance	SVA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	100	0	60	0
Fruits - pre-cut - ready-to-eat - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	3	0	1	0
Infant formula - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	40	0	40	0
Juice - vegetable juice - pasteurised - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25ml	3	0	3	0
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at retail - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	105	0	95	0
Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	2172	22	1596	22

Table *Listeria monocytogenes* in other foods

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	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
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	2052	0	1628	0
Meat from pig - meat products - fermented sausages - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	31	0		
Meat, mixed meat - meat products - cooked, ready-to-eat - chilled - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	3	0		
Other processed food products and prepared dishes - sandwiches - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	151	0	36	0
Other processed food products and prepared dishes - sandwiches - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	60	4	25	4
Ready-to-eat salads - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	230	1	43	1
Ready-to-eat salads - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	25	0	25	0
Ready-to-eat salads - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	102	1	0	0
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	8	0	5	0
Seeds, sprouted - ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	13	0		
Vegetables - non-pre-cut - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Unknown	Batch	25g	17	0		
Vegetables - pre-cut - ready-to-eat - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	25g	9	0	5	0



Table *Listeria monocytogenes* in other foods

	Units tested with enumeration method	> detection limit but ≤ 100 cfu/g	L. monocytogen es > 100 cfu/g
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at processing plant - Surveillance	15	0	0
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at retail - Surveillance	18	0	0
Meat from pig - fresh - at processing plant - Surveillance			
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance	489	0	5
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance	73	0	0
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance			
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance	186	0	0
Fish - smoked - at processing plant - Surveillance			
Fish - smoked - at retail - Surveillance	39	0	0
Molluscan shellfish - cooked - at processing plant - Surveillance			
Infant formula - at retail - Surveillance			
Other processed food products and prepared dishes - sandwiches - at retail - Surveillance	47	0	0

Table Listeria monocytogenes in other foods

	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogen es > 100 cfu/g
Vegetables - pre-cut - ready-to-eat - at retail - Surveillance	16	0	0
Fruits - pre-cut - ready-to-eat - at retail - Surveillance	1	0	0
Chocolate - at retail - Surveillance	5	0	0
Confectionery products and pastes - at processing plant - Surveillance	230	0	0
Confectionery products and pastes - at retail - Surveillance	32	0	0
Fish - smoked - at retail - Surveillance	40	0	0
Fruits - pre-cut - ready-to-eat - at processing plant - Surveillance	2	0	0
Infant formula - at processing plant - Surveillance			
Juice - vegetable juice - pasteurised - at processing plant - Surveillance			
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance	10	0	0
Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance	576	0	0
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance	424	0	0

Table Listeria monocytogenes in other foods

	Units tested with enumeration method	> detection limit but ≤ 100 cfu/g	L. monocytogen es > 100 cfu/g
Meat from pig - meat products - fermented sausages - at retail - Surveillance	31	0	0
Meat, mixed meat - meat products - cooked, ready- to-eat - chilled - at retail - Surveillance	3	0	0
Other processed food products and prepared dishes - sandwiches - at processing plant - Surveillance	115	0	0
Other processed food products and prepared dishes - sandwiches - at processing plant - Surveillance	35	0	0
Ready-to-eat salads - at processing plant - Surveillance	187	0	0
Ready-to-eat salads - at processing plant - Surveillance			
Ready-to-eat salads - at retail - Surveillance	102	0	1
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance	3	0	0
Seeds, sprouted - ready-to-eat - at retail - Surveillance	13	0	0
Vegetables - non-pre-cut - at retail - Surveillance	17	0	0
Vegetables - pre-cut - ready-to-eat - at processing plant - Surveillance	4	0	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

Occurrence of the zoonotic agent or disease is sporadic and in human population there was no clinical case of the disease.

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

SVA: In the year 2012 there were 11 positive findings of VTEC from the swabs taken from slaughter animals.

CAFIA: in the year 2012 no positive finding from foodstuffs was found out.

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

There was no relevance between findings in animals and foodstuffs to human.

##### Recent actions taken to control the zoonoses

SVA: Sampling for monitoring of VTEC was performed at slaughterhouses during June, July and August. The samples were taken as a swabs from the carcasses of pigs and cattle. Swabs were taken from 4 places on the carcass. The sampling area of the swab was 100 cm<sup>2</sup>. Samples were tested in State Veterinary Institutes. CAFIA: sampling for monitoring STEC was performed at processing plants (dried seeds for sprouting) and at retail level (sprouts, ready-to-eat) from July to September.

##### Additional information

CAFIA: the methods according to ISO TS 13163 and EU-RL for E.coli: detection and identification of verotoxin - producing E.coli (VTEC) O104:H4 in food by real time PCR, Rome, 2 Jun 2011, were used in the national reference laboratory.

## 2.4.2 Escherichia coli, pathogenic in foodstuffs

Table VT E. coli in food

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Analytical Method	Sampling unit	Sample weight	Units tested	Total units positive for Verotoxigenic E. coli (VTEC)	Verotoxigenic E. coli (VTEC) - VTEC O157
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	ISO/PRF TS 13136	Batch	100g	6	0	
Seeds, sprouted - ready-to-eat - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	ISO/PRF TS 13136	Batch	100g	15	0	
Seeds, dried - at processing plant - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Imported from outside EU	ISO/PRF TS 13136	Batch	100g	7	0	
Meat from bovine animals - carcass - at slaughterhouse - Monitoring	SVA	Census	Official sampling	food sample > carcass swabs	Domestic	ISO/PRF TS 13136	Batch	400cm2	622	8	0
Meat from pig - carcass - at slaughterhouse - Monitoring	SVA	Census	Official sampling	food sample > carcass swabs	Domestic	ISO/PRF TS 13136	Batch	400cm2	993	3	1
Seeds, dried - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Imported from outside EU	ISO/PRF TS 13136	Batch	100g	14	0	
Vegetables - non-pre-cut - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	ISO/PRF TS 13136	Batch	100g	14	0	
	Verotoxigenic E. coli (VTEC) - VTEC non-O157	Verotoxigenic E. coli (VTEC) - VTEC, unspecified	Verotoxigenic E. coli (VTEC) - VTEC O103 - eae positive vtx1 positive	Verotoxigenic E. coli (VTEC) - VTEC O103 - eae positive vtx2 positive	Verotoxigenic E. coli (VTEC) - VTEC O104	Verotoxigenic E. coli (VTEC) - VTEC O145 - eae positive vtx1 and vtx2 positive	Verotoxigenic E. coli (VTEC) - VTEC O145 - eae positive vtx1 positive	Verotoxigenic E. coli (VTEC) - VTEC O157 - eae positive vtx2 positive			
Seeds, sprouted - ready-to-eat - at processing plant - Surveillance											
Seeds, sprouted - ready-to-eat - at retail - Surveillance											

Table VT E. coli in food

	Verotoxigenic E. coli (VTEC) - VTEC non- O157	Verotoxigenic E. coli (VTEC) - VTEC, unspecified	Verotoxigenic E. coli (VTEC) - VTEC O103 - eae positive vtx1 positive	Verotoxigenic E. coli (VTEC) - VTEC O103 - eae positive vtx2 positive	Verotoxigenic E. coli (VTEC) - VTEC O104	Verotoxigenic E. coli (VTEC) - VTEC O145 - eae positive vtx1 and vtx2 positive	Verotoxigenic E. coli (VTEC) - VTEC O145 - eae positive vtx1 positive	Verotoxigenic E. coli (VTEC) - VTEC O157 - eae positive vtx2 positive
Seeds, dried - at processing plant - Surveillance								
Meat from bovine animals - carcass - at slaughterhouse - Monitoring	8		1	1	3	2	1	
Meat from pig - carcass - at slaughterhouse - Monitoring	2			2				1
Seeds, dried - at retail - Surveillance								
Vegetables - non-pre-cut - at retail - Surveillance								

## 2.4.3 Escherichia coli, pathogenic in animals

### A. Verotoxigenic Escherichia coli in cattle (bovine animals)

#### Monitoring system

##### Sampling strategy

SVA: Sampling for monitoring of VTEC was performed at slaughterhouses during June, July and August. The samples were taken as swabs from the carcasses of bovine animals. Swabs were taken from 4 places on the carcass. The sampling area of each swab was 100 cm<sup>2</sup>. Samples were tested in State Veterinary Institutes.

##### Frequency of the sampling

Animals at slaughter (herd based approach)

Swabs were taken from slaughter cattle during June, July and August once per month.

##### Type of specimen taken

Animals at slaughter (herd based approach)

Swab from the carcass.

##### Methods of sampling (description of sampling techniques)

Animals at slaughter (herd based approach)

Swabs were taken from 4 places on the carcass. The sampling area of each swab was 100 cm<sup>2</sup>.

##### Case definition

Animals at slaughter (herd based approach)

Positive case: Isolation of the strain with genes stx and eae. This strain has to belong to serogroups: O157, O111, O26, O103, O104 or O145 at the same time.

##### Diagnostic/analytical methods used

Animals at slaughter (herd based approach)

ISO TS 13136:2012

##### Notification system in place

Results of testing were sent to SVA.

##### Results of the investigation

It was tested 622 swabs in total and from that 8 swabs were positive for VTEC.

## 2.5 TUBERCULOSIS, MYCOBACTERIAL DISEASES

### 2.5.1 General evaluation of the national situation

### 2.5.2 Mycobacterium in animals

#### A. Mycobacterium bovis in bovine animals

##### Status as officially free of bovine tuberculosis during the reporting year

###### The entire country free

The Czech Republic is free of Bovine tuberculosis caused by *M. bovis* since 1967 on the national level and from 2004 is declared as officially free in accordance with EU legislation on the base of Commission Decision 2004/320/EC.

###### Free regions

The whole territory of the Czech Republic is declared as officially free of tuberculosis (*M. bovis*) in relation to bovine herds.

###### Additional information

During the reporting year 2012 there was no occurrence and/or outbreak of bovine tuberculosis caused by *Mycobacterium bovis* in bovine animals.

##### Monitoring system

###### Sampling strategy

The sampling strategy and monitoring system is in accordance with Directive 64/432/EEC as amended.

###### Frequency of the sampling

Tuberculosis "Alergenodiagnosis" simple skin test (antigen "Bovitubal" *M. bovis* 28 000 IU)

Data of the last skin test must be checked prior to skin test in order to observe specified time period between individual examinations.

a) animals moved for further keeping in the Czech Republic " examination of female animals over 24 months of age one month prior to the first movement 1x per year. The term movement means: outside the territory of a region

b) animals imported from third countries (excluding slaughter animals) examination of female animals over 6 weeks of age and breeding bulls. The examination must be carried out as soon as possible after arrival of animals to the place of destination with respect to eventual previous tuberculin test;

c) animals moved from Member States not having status of bovine tuberculosis officially free country or region (excluding slaughter animals) and examination of female animals over 6 weeks of age and breeding bulls. The examination must be carried out as soon as possible after arrival of animals to the place of destination with respect to eventual previous tuberculin test;

d) breeding bulls in BBRH examination within 28 days prior to basic selection;

e) breeding bulls prior to admission to semen collection centres examination in accordance with Annex 2 to Decree No. 380/2003;

f) breeding bulls in semen collection centres 1x per year examination in accordance with Annex 2 to Decree No. 380/2003.



## Type of specimen taken

skin test

## Methods of sampling (description of sampling techniques)

The place of antigen application is situated at the border of the anterior and middle thirds of the neck. The skin must be without pathological changes, equally thick with the possibility of an easy cutaneous drape formation. The place of tuberculin administration is perfectly cut and cleaned. The cutaneous drape is formed with the thumb and the point finger and its thickness is after cutimetre measuring recorded. The dosage of 0.1 ml of tuberculin is applied by means of a short sterile needle, bevel edge outwards, with graduated syringe charged with tuberculin, inserted obliquely into the deepest layers of the skin. The right reaction after intradermal administration - the papula formation in the place of allergen inoculation - must be detected by palpation. If the tuberculin was not administered intradermally, it is possible to repeat the administration in the same place in the prescribed dosage. If the skin is injured during cutting or if skin changes are determined before tuberculin administration, it is necessary to inoculate tuberculin on another place of the same neck side. The origin place is cancelled with the hair cut.

## Case definition

Negative reaction: If there is apparent only bordered swelling with the cutaneous drape strengthening of max. 2 mm without clinical symptoms as diffusion or large swelling, exudation, necrosis, painfulness or inflammation reaction of the corresponding lymphatic vessels or lymphatic nodes. Dubious reaction: If there is apparent no clinical symptom stated in item a) but the cutaneous drape strengthening is higher than 2 mm but lower than 4 mm. Positive reaction: If there are apparent clinical symptoms stated in item a) or the cutaneous drape in the place of application is thicker by 4 mm or more.

## Diagnostic/analytical methods used

Simple skin test has been performed with tuberculin BOVITUBAL 28000 IU/ml (Bioveta, CZ) which contains tuberculin protein from *Mycobacterium bovis* (strain AN 5). The dose for one animal is 0,1ml. The diagnostic method is in accordance with recommendation OIE.

## Vaccination policy

Vaccination is strictly prohibited.

## Other preventive measures than vaccination in place

All slaughtered bovine animals were under veterinary control. The official post mortem veterinary examination is carry out in slaughterhouses by the official veterinarian in accordance with EU legislation.

## Control program/mechanisms

### The control program/strategies in place

The control of bovine tuberculosis is performing in accordance with 64/432/EC as amended.

## Measures in case of the positive findings or single cases

In the case of positive results of examination the appropriate RVA issued extraordinary veterinary measures in accordance with Veterinary Act (CZ legislation) and EU legislation.

## Notification system in place

Notification system is lay down by the Act No. 166/1999 on veterinary care and amending certain related laws (Veterinary Act), as amended.

## Results of the investigation

If the result of investigation is positive, the person responsible for the laboratory carrying out the examination, the person carrying out the examination or the owner of the animals shall notify the results to the competent authority.

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

In the Czech Republic bovine tuberculosis was suppressed in frame of the nationwide sanitation program (1959 - 1968) on 10 October 1968. The post-eradication period (1969 - 1999) was characterized by the extinction of reservoir sources. Currently only the sporadic cases of the bovine tuberculosis incidence have been recorded. In 1981, 1987 to 1990, 1993 and 1996 any bovine tuberculosis incidence was not found. Thereat in other years, from 1980 to 1995, at the most three outbreaks of tuberculosis ever appeared in cattle. The participation of the infected animals in individual stocks was very low and never exceeded 5 to 10% of animals. In 1970 to 1995 the *Mycobacterium bovis* infection was also diagnosed in other 119 animals (zoo, wild live, backyard) and in ten milk specimens. By course of the O.I.E. (International Animal Health Code, chapter 3.2.3.) definition the territory of the Czech Republic is free from bovine tuberculosis (the prevalence up to 0,2% of infected cattle stocks).

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

There is an paradox situation because human become risk for animals, mainly workers from easter third countries can be source of infection for animals.

#### Additional information

In the year 2011 were tested 6338 animals by single skin test without positive results. Number of animals with suspicious lesions of tuberculosis were 5. All this lesions were detected as negative for *M. bovis*, *M. tuberculosis* or *M. avium*.

In the framework of the health control paid by the state, bovine tuberculosis is currently monitored in the CR as follow: single tuberculin test, simultaneous tuberculin test, laboratory examination (section, histological investigation and bacteriological investigation), serological investigation.

#### Goats tubercullosis

-25 % of female animals (of all breeds), at least 50 female animals, over 12 months of age is examined 1x per year in holdings (herds) producing

Table Tuberculosis in other animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Units tested	Total units positive for Mycobacterium	M. bovis	M. tuberculosis	Mycobacterium spp., unspecified
Goats	SVA	Selective sampling	Official and industry sampling		Domestic	Animal	2084	0			
Pigs	SVA	Suspect sampling	Official sampling		Domestic	Animal	162	21			21

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			
Česká Republika	19439	1390111	19439	100	0	0	others, please	6788	6788	3	0
Total : <sup>1)</sup>	19439	1390111	19439	100	0	0	N.A.	6788	6788	3	0

Comments:

<sup>1)</sup> N.A.

## 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

In 1964 the program for eradication and control of bovine brucellosis in cattle caused by *B. abortus* was successfully completed.

Ovine and caprine brucellosis caused by *B. melitensis* has never been occurred in the Czech Republic.

##### Swine brucellosis

- aborting sows or sows which gave birth to less viable piglets (one sampling) – sampling is performed immediately after aborting,
- aborted foetuses, less viable piglets or amniotic sacs are examined immediately after aborting at the suspicion on infection or contamination where the mother is unknown. The RVAs SVA shall determine the scope of examinations,
- examination of all slaughtered sows and boars; animals transported within the framework of intra-Community trade or import from third countries directly to slaughterhouses are not concerned,
- breeding boars at holdings of origin prior to the admission to an isolation stable,
- breeding boars at semen collection centres 1x per year,
- breeding boars at an isolation stable prior to the admission to a semen collection centre within 15 days after the beginning of the isolation at the

## 2.6.2 Brucella in animals

### A. Brucella abortus in bovine animals

#### Status as officially free of bovine brucellosis during the reporting year

##### The entire country free

The Czech Republic is free of bovine brucellosis since 1964 at the national level and since 2004 is declared as officially free of bovine brucellosis according to Commission Decision 2004/320/EC.

##### Additional information

During the reporting year 2012 there was no occurrence and/or outbreak of bovine brucellosis on the whole territory of the Czech Republic.

#### Monitoring system

##### Sampling strategy

Samples are taken from:

- 1, All holdings of cattle, which do not supply milk to dairy - all animals from age 24 months, all breeding bulls, all abortion animals - blood samples.
- 2, All holdings of cattle, where is more than 100 heads, which supply milk to dairy - all animals from age 24 months - blood samples.
- 3, Abortion fetuses in indicated cases.
- 4, All holdings of milk cows, where is less than 100 heads, which supply milk to dairy - bulk milk samples

##### Frequency of the sampling

Sampling scheme:

- a) breeding bulls in breeding bulls rearing house - examination within 28 days prior to basic selection;
- b) breeding bulls prior to admission to semen collection centres - examination in accordance with Annex 2 to Decree No. 380/2003;
- c) breeding bulls in semen collection centres 1x per year examination in accordance with Annex 2 to Decree No. 380/2003.

Brucellosis serological examination

- a) all bovine holdings (herds) not delivering milk or not authorized to local sale of milk examination of all animals over 24 months of age and breeding bulls in natural mating 1x per year;
- b) animals imported from third countries (excluding slaughter animals) examination of female animals over 24 months of age and breeding bulls. The examination must be carried out at most 1 month after arrival of animals to the place of destination;
- c) animals moved from Member States not having status of bovine brucellosis officially free country or region (excluding slaughter animals) examination of female animals over 24 months of age and breeding bulls. The examination must be carried out at most 1 month after arrival of animals to the place of destination.

Brucellosis serological examination (RBT or ELISA) number of milking cows is recorded. Blood samples from all bovine holdings, where is more than 100 heads delivering milk to dairy plants or authorized to local sale of milk examination of all animals older 24 months 1x per year.

Brucellosis examination of milk (ELISA) number of milking cows is recorded. Bulk milk samples from all bovine holdings, where is less than 100 heads delivering milk to dairy plants or authorized to local sale of milk examination 2x per year in interval of at least 3 months. The examination of 100 dairy cows at most.

Brucellosis

All aborting cows are serologically tested after abortion.

Brucellosis

Abortions and amnia examination in indicated cases.

Type of specimen taken

milk, blood, abortion foetus

Diagnostic/analytical methods used

The diagnostic methods are used in accordance with Directive 64/432/EEC, Regulation 2004/226/EEC.  
RBT, Complement fixation test, ELISA, slow agglutination.

Vaccination policy

Vaccination is strictly prohibited.

Other preventive measures than vaccination in place

Control of animals movement between regions and control of imported animals.

## B. Brucella melitensis in goats

### Status as officially free of caprine brucellosis during the reporting year

#### The entire country free

The whole territory of the Czech Republic is officially free of Sheep and goat brucellosis in accordance with Commission Decision No. 320/2004/EC.

### Monitoring system

#### Sampling strategy

The sampling strategy was done by State Veterinary Administration in Methodology of control of animal healths which is laid down in accordance with Veterinary Act No. 166/1999 as amended.

#### Frequency of the sampling

##### Caprine brucellosis (*B. melitensis*)

- Aborting goats serological examination after abortion.
- Breeding goats in mating examination 1x per year in accordance with Annex 9 to Decree No. 380/2003.
- Holdings (herds) producing young breeding he-goats where performance checks are carried out examination 1x per year. Representative number of animals shall include:
  - a) all non-castrated male animals over 6 months of age;
  - b) 25% of female animals of reproduction age (sexually mature) or lactating examination of at least 50 female animals (all animals in holdings containing less than 50 animals);
  - c) all animals over 6 months of age introduced to the holding after the previous testing.
- Abortions or amnia are bacteriologically tested in indicated cases.

#### Type of specimen taken

Blood

#### Methods of sampling (description of sampling techniques)

The methods of sampling is in accordance with Annex of the Council Decision 90/242/EEC

#### Diagnostic/analytical methods used

The diagnostic methods were used in accordance with Directive 64/432/EEC and Regulation 2004/226/EEC. RBT, CFT, ELISA and slow agglutination.

### Vaccination policy

Vaccination is strictly prohibited.

### Other preventive measures than vaccination in place

Control of animals movement between regions and control of imported animals.

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

The disease has never been recorded in the Czech Republic.

In 2011 were tested all breeding male once a year, all aborted goats after abortion and in holdings producing young breeding bucks were tested all bucks 6 months old and 25 % adult goats (min. 50 heads) once a year. 3590 samples in goats were tested for *B. melitensis* in year 2011 with negative results.

Samples were tested by complement fixation test, Rose bengal test and slow agglutination.

In the year 2012 were tested 4261 animals in 451 holdings. All tests with negative results.



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

There are not relevancies of the findings to human cases as a source of infection.

### C. Brucella melitensis in sheep

#### Status as officially free of ovine brucellosis during the reporting year

The entire country free

The Czech Republic is officially free of ovine brucellosis in accordance with 320/2004/EC.

Free regions

All regions in the Czech republic are free of ovine brucellosis (*B. melitensis*) and the disease has never been found in the Czech Republic.

#### Monitoring system

Sampling strategy

The sampling strategy was done by State Veterinary Administration in Methodology of control of animal health which is laid down in accordance with Veterinary Act No. 166/1999 as amended.

Frequency of the sampling

Ovine and caprine brucellosis (*B. melitensis*)

Licensed breeding rams examination 1x per year in accordance with Annex 9 to Decree No. 380/2003.

Holdings (herds) producing young breeding rams where performance checks are carried out examination 1x per year. Representative number of animals shall include:

- a) all non-castrated male animals over 6 months of age;
- b) 25% of female animals of reproduction age (sexually mature) or lactating examination of at least 50 female animals (all animals in holdings containing less than 50 animals);
- c) all animals over 6 months of age introduced to the holding after the previous testing.

Aborting ewes are serologically tested once after abortion.

Ovine and caprine brucellosis (*B. melitensis*) LE (A + BE)

Abortions or amnia examination in indicated cases.

Type of specimen taken

blood and fetuses

Methods of sampling (description of sampling techniques)

The methods of sampling and testing is in accordance with Annex of the Council Decision 90/242/EEC

#### Vaccination policy

Vaccination is strictly prohibited.

#### Other preventive measures than vaccination in place

Control of animals movement between regions and control of imported animals.

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

In the year 2012 were tested 15489 animals in 2086 holdings. All tests with negative results.

## Table Brucellosis in other animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Units tested	Total units positive for Brucella	B. abortus	B. melitensis	B. suis
Pigs	SVA	Objective sampling	Official sampling	animal sample > blood	Domestic	Animal	58013	0			
Dogs - pet animals	SVA	Suspect sampling	Official sampling	animal sample > blood	Domestic	Animal	101	0			
Hares - wild	SVA	Selective sampling	Official sampling	animal sample	Domestic	Animal	227	19			19
Zoo animals, all	SVA	Suspect sampling	Official sampling	animal sample		Animal	385	1			

	Brucella spp., unspecified
Pigs	
Dogs - pet animals	
Hares - wild	
Zoo animals, all	1

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 microbiologically	Number of animals positive microbiologically	Number of suspended herds
Česká Republika	21263	296809	21263	100	0	0	2537	19750	0	40	0	1	0	0
Total : <sup>1)</sup>	21263	296809	21263	100	0	0	2537	19750	0	40	0	1	0	0

Comments:

<sup>1)</sup> N.A.

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								
							Serological tests			Examination of bulk milk			Information about			Epidemiological investigation					
	Herds	Animals	Number of herds	%	Number of herds	%	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		
Česká Republika	19439	1390111	19439	100	0	0	14053	560171	0	1166	120448	0	4480	0	0	4480	0	0		2	0
Total : <sup>1)</sup>	19439	1390111	19439	100	0	0	14053	560171	0	1166	120448	0	4480	0	0	4480	0	0	0	2	0

Comments:

<sup>1)</sup> N.A.

## 2.7 YERSINIOSIS

### 2.7.1 General evaluation of the national situation

### 2.7.2 Yersiniosis in humans

#### A. Yersiniosis in humans

History of the disease and/or infection in the country

Relevance as zoonotic disease

## 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

The trichinellosis is very rare disease in wild life animals. The main source of the infection in the Czech Republic are wild boars. In 2012 was confirmed one positive case in humans.

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

The occurrence of the disease in animals and humans is sporadic and the situation is stable.

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

There was no relevance between finding in animals and finding in human.

## 2.8.2 Trichinellosis in humans

### A. Trichinellosis in humans

#### Case definition

Serological positive test.

#### Results of the investigation

One positive case in humans (16 years old boy).



Table Trichinella in humans - Species/serotype distribution

Species/serotype Distribution	Cases	Cases Inc.	Autochthon cases	Autochthon Inc.	Imported cases	Imported Inc.
Trichinella	1	0	0	0	0	0
Trichinella spp., unspecified	1					

Table Trichinella in humans - Age distribution

Age distribution	Trichinella spp., unspecified		
	All	M	F
15 to 24 years		1	
Total :	0	1	0

## 2.8.3 Trichinella in animals

### A. Trichinella in horses

#### Monitoring system

##### Sampling strategy

All horses at slaughter are tested for trichinella. The samples are taken by veterinary authorities in the slaughterhouses.

##### Diagnostic/analytical methods used

Digestive method in accordance with Commission regulation (EC) No 2075/2005.

## B. Trichinella in pigs

### Number of officially recognised Trichinella-free holdings

There are no officially recognised Trichinella-free holdings in the Czech Republic.

### Monitoring system

#### Sampling strategy

##### General

All carcasses of pigs are investigated in slaughterhouses. The sampling strategy is realized in accordance with the Veterinary Act No. 166/1999 coll., as amended.

#### Frequency of the sampling

##### General

All carcasses of pigs are investigated at slaughterhouses and all hunted wild boars for human consumption were tested for the presence of trichinella according to the Veterinary Act No. 166/1999 coll., as amended.

#### Type of specimen taken

##### General

Diaphragm muscles were taken and in the case of absence of diaphragm - the jaw muscle, tongue or abdominal muscles were sampled.

#### Methods of sampling (description of sampling techniques)

##### General

The digestive method is used as an approved method in accordance with Commission Regulation (EC) No 2075/2005.

#### Case definition

##### General

Presence of cyst or organism Trichinella spp. in muscles.

#### Diagnostic/analytical methods used

##### General

The digestive method was carried out in accordance with 2075/2005/EC.

### Control program/mechanisms

#### The control program/strategies in place

The control program was made in accordance with 77/96/EC till the end of November 2005. The investigations were carried out in accordance with Commission Regulation (EC) No 2075/2005 from December 2005.

### Measures in case of the positive findings or single cases

The meat from positive carcass is excluded from the food chain.

### Results of the investigation including description of the positive cases and the verification of the Trichinella species

#### Fattening pigs raised under controlled housing conditions in integrated production system

All fattening pigs slaughtered in the slaughterhouses are tested for Trichinella spp. The positive case means presence of Trichinella spp. in muscles detected by the digestive method.

#### Fattening pigs not raised under controlled housing conditions in integrated production system

Pigs slaughtered at home only for owner consumption are not under official veterinary control. The veterinary control is in that case voluntary.

#### Breeding sows and boars

All breeding sows and boars are sampled in slaughterhouses.

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

The occurrence of *Trichinella* in pigs is very rare and sporadic. In the year 2012 were not detected any positive cases of wild boar. Any positive case of domestic pigs was not detected.

Table Trichinella in animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Units tested	Total units positive for Trichinella	T. spiralis	Trichinella spp., unspecified
Pigs - fattening pigs <sup>1)</sup>	SVA	Objective sampling	Official sampling	animal sample	Unknown	Animal	2769396	0		
Solipeds, domestic - horses - at slaughterhouse - Surveillance <sup>2)</sup>	SVA	Objective sampling	Official sampling	animal sample	Unknown	Animal	407	0		
Wild boars - wild - Surveillance	SVA	Unspecified	Not applicable	animal sample	Domestic	Animal	98852	0		

## Comments:

<sup>1)</sup> all slaughtered pigs in the Czech Republic were tested

<sup>2)</sup> All horses slaughtered in the Czech Republic were tested

## 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

Until 1965 occurred echinococcosis only sporadically in 2% of keepings (low capacity stables) and was minimized and later totally eradicated by innovation and using high capacity stables (restricted access of rodents).

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

The monitoring programme for Echinococcus in wildlife red foxes was introduced in the year 2005. SVA ended the active testing in the year 2011.

## 2.10 TOXOPLASMOSIS

### 2.10.1 General evaluation of the national situation

## 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

The importance of foxes in rabies epidemiology increased and red fox became the principal vector of rabies in the Czech Republic. Neither subsidies payment for hunted foxes, which was introduced in 1969, nor gassing of fox dens, carried out during 1979-1984, did not improved the situation. In the 1980s rabies reached its greatest geographical range. With the exception of several districts, the whole territory of the Czech Republic was affected. The oral vaccination of foxes was launched in a few districts adjacent to German borders in 1989 and implemented further thereafter. Since that time continual decline has been visible especially since 1992 when positive effect of oral vaccination has become evident. Last occurrence of Rabies in the Czech Republic was recorded in 2002 in fox at Poland border. One case of Bat rabies was recorded in 2005. In 2004 Czech Republic fulfilled OIE criteria and has been recognize as country free of Rabies. Thanks to good epidemiological situation in neighbouring countries, the vaccination program was finished in 2009 and since 2010 the oral vaccination programme of foxes is not carry out.

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

The last outbreak of Rabies was reported in April 2002. The last occurrence of Rabies was reported in one bat in year 2005. There was no outbreak in wildlife or domestic animals since April 2002. The vaccination is not performed since 2010 and targeted monitoring in wild life animals is ongoing. Vaccination of dogs is still mandatory according to the legislation.

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

Only three cases in human were diagnosed in history.(1968 -1 woman-Fox; 1973-1 man-Dog India; 1989-1 man-Unknown in Vietnam)

##### Recent actions taken to control the zoonoses

###### Domestic animals

Preventive vaccination of domestic carnivores and if necessary, domestic herbivores are the principal methods of domestic animals protection. The inactivated tissue-culture vaccines are used exclusively for this purpose.



## 2.11.2 Lyssavirus (rabies) in animals

### A. Rabies in dogs

#### Monitoring system

##### Diagnostic/analytical methods used

Fluorescent Antibody Test (FAT) on smears from hippocampus or medulla oblongata

#### Vaccination policy

Antirabies vaccination is obligatory according to Veterinary Act No 166/1999. Every breeder has to ensure that dogs and some other animals kept in captivity, particularly foxes, badgers and martens, are vaccinated against rabies at their age of 3 months and then revaccinated in regular intervals. The vaccination is carried out by private veterinarians at the owners' expenses.

#### Other preventive measures than vaccination in place

All dogs which bite a man must be clinically investigated by the veterinarian 1st and 5th day after bite.

#### Control program/mechanisms

##### The control program/strategies in place

Programme for oral vaccination of foxes was finished at the end of 2009. In case of necessary is possibility to perform emergency vaccination according to epidemiological situation.

#### Notification system in place

Rabies is notifiable disease and the notification system is laid down by the Act No. 166/1999, as amended (Veterinary Act).

#### Results of the investigation

The person responsible for the clinical investigation and laboratory testing have to notify the positive results to the competent authority.

Table Rabies in animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Region	Units tested	Total units positive for Lyssavirus (rabies)	Rabies virus (RABV)	EBLV-1
Cattle (bovine animals)	SVA	Selective sampling	Official sampling	animal sample	Domestic	Animal	Česká Republika	2	0		
Goats	SVA	Selective sampling	Official sampling	animal sample	Domestic	Animal	Česká Republika	1	0		
Dogs - stray dogs	SVA	Selective sampling	Official sampling	animal sample	Domestic	Animal	Česká Republika	96	0		
Cats - stray cats	SVA	Selective sampling	Official sampling	animal sample	Domestic	Animal	Česká Republika	140	0		
Bats - wild - Monitoring	SVA	Selective sampling	Official sampling	animal sample		Animal	Česká Republika	11	0		
Foxes - wild - Monitoring	SVA	Selective sampling	Official sampling	animal sample	Domestic	Animal	Česká Republika	3196	0		
Badgers - wild	SVA	Unspecified	Official sampling	animal sample	Domestic	Animal	Česká Republika	10	0		
Deer - wild	SVA	Unspecified	Official sampling	animal sample	Domestic	Animal	Česká Republika	8	0		
Hares - wild	SVA	Unspecified	Official sampling	animal sample	Domestic	Animal	Česká Republika	2	0		
Marten - wild	SVA	Unspecified	Official sampling	animal sample	Domestic	Animal	Česká Republika	41	0		
Other animals - wild	SVA	Unspecified	Official sampling	animal sample	Domestic	Animal	Česká Republika	36	0		
Wild boars - wild	SVA	Unspecified	Official sampling	animal sample	Domestic	Animal	Česká Republika	5	0		

	EBLV-2	Lyssavirus (unspecified virus)
Cattle (bovine animals)		
Goats		

Table Rabies in animals

	EBLV-2	Lyssavirus (unspecified virus)
Dogs - stray dogs		
Cats - stray cats		
Bats - wild - Monitoring		
Foxes - wild - Monitoring		
Badgers - wild		
Deer - wild		
Hares - wild		
Marten - wild		
Other animals - wild		
Wild boars - wild		

## 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

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

In 2008 - 2010 there was no case of Q fever in human population. The situation in animal population is morless unknown because no monitoring. The Q fever is notifiable disease, however, the outbreak has not been recorded in past years.

##### Recent actions taken to control the zoonoses

Monitoring of Q fever in cattle and sheep population has been introduced in 2011. Targeted sampling has been done in aborted animals. Blood samples has been tested serologically first by ELISA test. In case of ELISA positive result the CFT test has been used as confirmatory test.

## 2.13.2 Coxiella (Q-fever) in animals

Table Coxiella burnetii (Q fever) in animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Analytical Method	Sampling unit	Units tested	Total units positive for Coxiella (Q-fever)	C. burnetii	No of clinically affected herds
Cattle (bovine animals) - at farm - Monitoring <sup>1)</sup>	SVA	Suspect sampling	Official sampling	animal sample > blood	Domestic	ELISA	Animal	4456	1306	1306	0
Sheep - at farm - Monitoring <sup>2)</sup>	SVA	Suspect sampling	Official sampling	animal sample > blood	Domestic	ELISA	Animal	16	0	0	0
Goats - at farm - Monitoring <sup>3)</sup>	SVA	Suspect sampling	Official sampling	animal sample > blood	Domestic	ELISA	Animal	23	0	0	0

## Comments:

<sup>1)</sup> aborted animal<sup>2)</sup> aborted animal<sup>3)</sup> aborted animal

## 2.14 WEST NILE VIRUS INFECTIONS

### 2.14.1 General evaluation of the national situation

### 2.14.2 West Nile Virus in animals

#### A. West Nile Virus in Animals

##### Monitoring system

###### Sampling strategy

Serological testing of horses according to decision of the SVA (1 sample/100 km<sup>2</sup>). Serological and virological testing of horses with changes in behaviour and with nervous symptoms.

###### Type of specimen taken

Blood samples.

###### Diagnostic/analytical methods used

ELISA, VNT

##### Vaccination policy

Vaccination is not carried out in the CR.

##### Results of the investigation

There were 783 blood samples from horses tested in the CR in the year 2012 in total. 80 samples showed positive response with WNV antigen in cELISA test. From 77 samples tested in VNT were 4 samples positive. The cross reactivity with viral tick born encephalitis occurs very often.

Table West Nile Virus in Animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Vaccination status	Analytical Method	Sampling unit	Region	Units tested	Total units positive for West Nile Virus
Solipeds, domestic - horses - at farm - Monitoring - active	SVA	Selective sampling	Official sampling	animal sample	Domestic	no	ELISA	Animal	Česká Republika	783	4

### 3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE



### 3.1 ESCHERICHIA COLI, NON-PATHOGENIC

#### 3.1.1 General evaluation of the national situation

#### 3.1.2 Antimicrobial resistance in Escherichia coli, non-pathogenic

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		16	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.25	
Fluoroquinolones	Ciprofloxacin		0.03	
Penicillins	Ampicillin		8	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	

Table Cut-off values used for antimicrobial susceptibility testing of *Escherichia coli*, non-pathogenic in Animals

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

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 <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		16	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.25	
Fluoroquinolones	Ciprofloxacin		0.03	
Penicillins	Ampicillin		8	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

Test Method Used	Standard methods used for testing

447

## 3.2 ENTEROCOCCUS, NON-PATHOGENIC

### 3.2.1 General evaluation of the national situation

### 3.2.2 Antimicrobial resistance in Enterococcus, non-pathogenic isolates

Table Cut-off values for antibiotic resistance of *E. faecalis* in Animals

Test Method Used		Standard methods used for testing		
			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		512	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		32	

Table Cut-off values for antibiotic resistance of *E. faecalis* in Animals

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	

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	Gentamicin		32	
	Streptomycin		512	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		32	
Tetracyclines	Tetracycline		2	

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	Gentamicin		32	
	Streptomycin		512	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		32	
Tetracyclines	Tetracycline		2	



Table Cut-off values for antibiotic resistance of *E. faecium* in Animals

Test Method Used		Standard methods used for testing		
			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		128	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	

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	Gentamicin		32	
	Streptomycin		128	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	

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	Gentamicin		32	
	Streptomycin		128	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	

## 4. INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS

## 4.1 ENTEROBACTER SAKAZAKII

### 4.1.1 General evaluation of the national situation

### 4.1.2 Cronobacter in foodstuffs

#### A. Cronobacter in foodstuffs

##### Monitoring system

##### Sampling strategy

There was no official National program for the monitoring of Cronobacter spp. (*Enterobacter sakazakii*) at food business operators. SVA tested 7 samples of milk powder with negative results. CAFIA sampled 14 single samples. As there was only such a small number of samples we do not provide any additional comments.

##### Control program/mechanisms

Recent actions taken to control the hazard

##### Results of the investigation

Table Cronobacter in food

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Cronobacter	Cronobacter sakazakii	Cronobacter spp, unspecified
Infant formula - dried - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	Single	300g	14	0		
Dairy products, unspecified - at processing plant - Unspecified	SVA	Unspecified	Industry sampling	food sample	Unknown	Batch	500 g	7	0		

## 4.2 HISTAMINE

### 4.2.1 General evaluation of the national situation

### 4.2.2 Histamine in foodstuffs

#### A. Histamine in foodstuffs

##### Monitoring system

###### Sampling strategy

There is no official National program for monitoring of histamin. SVA and CAFIA performed control according to Commission Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs. Samples were collected by competent authority. CAFIA performed the sampling as part of an official sampling from 7 regions of the Czech Republic 17-times within a year by the inspectors and analysed in CAFIA laboratory. The sampling by SVA and CAFIA was random.

###### Frequency of the sampling

SVA: in random.

CAFIA: 17-times a year an one sample.

###### Type of specimen taken

fish products

###### Methods of sampling (description of sampling techniques)

Sample of 100 grams minimum each of (n=9) is taken in a sterile way, into clean and dry plastic bag. The samples are placed into refrigerated container and immediately sent to the laboratory for investigation.

Numbers of subsamples n=9 were taken in accordance with Commission Regulation (EC) No 2073/2005.

###### Definition of positive finding

Batch in non-conformity - a batch for which the mean value of the sample units exceeds 100 mg/kg or 200 mg/kg.

###### Diagnostic/analytical methods used

HPLC in accordance with Regulation (EC) No 2073/2005.

##### Control program/mechanisms

###### Recent actions taken to control the hazard

SVA monitored of histamin in accordance with Commission Regulation (EC) No 2073/2005 in fishery products from this fish species: mackerel, tuna, sardine, sprat.

CAFIA monitored of histmin in accordance with Commission Regulation (EC) No 2073/2005 in fishery products from fish species of the family Scombridae and Engraulidae.

##### Results of the investigation

SVA: In 2012, in total 10 samples of fishery products were tested. None of the samples was not in non-conformity.

CAFIA: In total, 17 samples of fishery products were examined for presence of histamin. None of the samples examined exceeded the mean value 100 mg/kg or 200 mg/kg.



Table Histamine in food

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units in non-conformity	<= 100 mg/kg	>100 - <= 200 mg/kg
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	100g	10	0	10	
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	Batch	100g	17	0	17	
										>200 - <= 400 mg/kg	> 400 mg/kg
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at processing plant - Surveillance											
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at retail - Surveillance											

## 4.3 STAPHYLOCOCCAL ENTEROTOXINS

### 4.3.1 General evaluation of the national situation

### 4.3.2 Staphylococcal enterotoxins in foodstuffs

#### A. Staphylococcal enterotoxins in foodstuffs

##### Monitoring system

###### Sampling strategy

SVA – there was not any national program focused on the monitoring of staphylococcal enterotoxins in foodstuffs neither at the retail nor in the network of food business operators in 2012.

SVA performed control according to Regulation (EC) No 2073/2005 effective. SVA took the samples during or at the end of the production process.

CAFIA performed control at retail according to Regulation (EC) No 2073/2005 of 15 November 2005 on microbiological criteria for foodstuffs.

Samples were collected by a competent authority as part of an official sampling from one region of the Czech Republic twice a year and analysed in the CAFIA laboratory. The sampling by CAFIA was random.

###### Frequency of the sampling

The sampling by SVA was random.

CAFIA performs sampling twice a year.

###### Type of specimen taken

Other: cheese, milk powder, infant formula

###### Methods of sampling (description of sampling techniques)

SVA - Each sample of 500 grams minimum is taken in a sterile way, into clean and dry plastic bag. The samples are placed into refrigerated container and immediately sent to the laboratory for investigation.

CAFIA - Sample of 600 grams minimum each is taken in a sterile way, into clean and dry plastic bag. The samples are placed into refrigerated container and immediately sent to the laboratory for investigation.

Numbers of subsamples n=5 in accordance with Regulation (EC) No 2073/2005 were taken.

###### Definition of positive finding

SVA, CAFIA - The positive finding means the presence of staphylococcal enterotoxins in 25g of sample.

###### Diagnostic/analytical methods used

European screening method (version V.) for the detection of staphylococcal enterotoxins in milk and milk products recommended in Regulation (EC) No 2073/2005 (Reference: Community reference laboratory for coagulase positive staphylococci).

### Results of the investigation

SVA - in 2012, no sample out of total 26 of SVA samples was positive for staphylococcal enterotoxins.

In 2012, no sample out of total 26 of CAFIA samples was positive for staphylococcal enterotoxins.

Table Staphylococcal enterotoxins in food

	Source of information	Sampling strategy	Sampler	Sample type	Sample origin	Sampling unit	Sample weight	Units tested	Total units positive for Staphylococcal enterotoxins
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Domestic	Batch	500 g	10	0
Cheeses made from cows' milk - hard - made from pasteurised milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Domestic	Batch	500 g	2	0
Cheeses made from goats' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Domestic	Batch	500 g	5	0
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance	SVA	Objective sampling	Official sampling	food sample	Unknown	Batch	500 g	9	0
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	600g	8	0
Dairy products (excluding cheeses) - milk powder and whey powder - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Domestic	Batch	600g	6	0
Infant formula - dried - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	Batch	600g	6	0
Infant formula - dried - intended for infants below 6 months - at retail - Surveillance	CAFIA	Objective sampling	Official sampling	food sample	Intra EU trade	Batch	600g	6	0

## 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

Epidemiological investigation of outbreaks are performed by regional public health authorities. After completing epidemiological investigation they provide MOH and National Institute of Public Health with written report on outbreak. Reports are mandatory for larger outbreaks. Summaries are published in yearly table.

### Description of the types of outbreaks covered by the reporting:

Mainly general outbreaks are reported. Decision on reporting other outbreaks (mainly household outbreaks) are made by regional authorities. Individual data on disease episodes from specific outbreaks are notified in EPIDAT, general infectious disease notification system. Reporting doesn't depend on causative agent.

Table Foodborne Outbreaks: summarised data

	Weak evidence or no vehicle outbreaks				Strong evidence Number of Outbreaks	Total number of outbreaks
	Number of outbreaks	Human cases	Hospitalized	Deaths		
Salmonella - S. Typhimurium	0	unknown	unknown	unknown	0	0
Salmonella - S. Enteritidis	18	380	57	0	0	18
Salmonella - Other serovars	1	11	2	0	0	1
Campylobacter	2	31	1	0	0	2
Listeria - Listeria monocytogenes	0	unknown	unknown	unknown	0	0
Listeria - Other Listeria	0	unknown	unknown	unknown	0	0
Yersinia	1	62	55	0	0	1
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC)	0	unknown	unknown	unknown	0	0
Bacillus - B. cereus	0	unknown	unknown	unknown	0	0
Bacillus - Other Bacillus	0	unknown	unknown	unknown	0	0
Staphylococcal enterotoxins	0	unknown	unknown	unknown	0	0
Clostridium - Cl. botulinum	0	unknown	unknown	unknown	0	0
Clostridium - Cl. perfringens	0	unknown	unknown	unknown	0	0

	Weak evidence or no vehicle outbreaks				Strong evidence Number of Outbreaks	Total number of outbreaks
	Number of outbreaks	Human cases	Hospitalized	Deaths		
Clostridium - Other Clostridia	0	unknown	unknown	unknown	0	0
Other Bacterial agents - Brucella	0	unknown	unknown	unknown	0	0
Other Bacterial agents - Shigella	0	unknown	unknown	unknown	0	0
Other Bacterial agents - Other Bacterial agents	0	unknown	unknown	unknown	0	0
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	0	unknown	unknown	unknown	0	0
Parasites - Other Parasites	0	unknown	unknown	unknown	0	0
Viruses - Norovirus	0	unknown	unknown	unknown	0	0
Viruses - Hepatitis viruses	1	36	2	0	0	1
Viruses - Other Viruses	0	unknown	unknown	unknown	0	0
Other agents - Histamine	0	unknown	unknown	unknown	0	0
Other agents - Marine biotoxins	0	unknown	unknown	unknown	0	0
Other agents - Other Agents	0	unknown	unknown	unknown	0	0



Unknown agent	Weak evidence or no vehicle outbreaks				Strong evidence Number of Outbreaks	Total number of outbreaks
	Number of outbreaks	Human cases	Hospitalized	Deaths		
	0	unknown	unknown	unknown		