

## ROMANIA

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

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

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

IN 2008

## **INFORMATION ON THE REPORTING AND MONITORING SYSTEM**

Country: **Romania**

Reporting Year:

## 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 Romania during the year 2008 .

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

## List of Contents

1	ANIMAL POPULATIONS	1
2	INFORMATION ON SPECIFIC ZOONOSES AND ZOONOTIC AGENTS	2
2.1	SALMONELLOSIS	3
2.1.1	General evaluation of the national situation	3
2.1.2	Salmonellosis in humans	3
2.1.3	Salmonella in foodstuffs	3
2.1.4	Salmonella in animals	107
2.1.5	Salmonella in feedingstuffs	114
2.1.6	Salmonella serovars and phagetype distribution	121
2.1.7	Antimicrobial resistance in Salmonella isolates	158
2.2	CAMPYLOBACTERIOSIS	401
2.2.1	General evaluation of the national situation	401
2.2.2	Campylobacteriosis in humans	401
2.2.3	Campylobacter in foodstuffs	401
2.2.4	Campylobacter in animals	405
2.2.5	Antimicrobial resistance in Campylobacter isolates	406
2.3	LISTERIOSIS	410
2.3.1	General evaluation of the national situation	410
2.3.2	Listeriosis in humans	411
2.3.3	Listeria in foodstuffs	411
2.3.4	Listeria in animals	424
2.4	E. COLI INFECTIONS	425
2.4.1	General evaluation of the national situation	425
2.4.2	E. coli infections in humans	425
2.4.3	Escherichia coli, pathogenic in foodstuffs	425
2.4.4	Escherichia coli, pathogenic in animals	428
2.5	TUBERCULOSIS, MYCOBACTERIAL DISEASES	428
2.5.1	General evaluation of the national situation	428
2.5.2	Tuberculosis, mycobacterial diseases in humans	428
2.5.3	Mycobacterium in animals	428
2.6	BRUCELLOSIS	432
2.6.1	General evaluation of the national situation	432
2.6.2	Brucellosis in humans	432
2.6.3	Brucella in animals	432
2.7	YERSINIOSIS	435
2.7.1	General evaluation of the national situation	435
2.7.2	Yersiniosis in humans	435
2.7.3	Yersinia in foodstuffs	435
2.7.4	Yersinia in animals	436
2.8	TRICHINELLOSIS	437

2.8.1	General evaluation of the national situation	437
2.8.2	Trichinellosis in humans	438
2.8.3	Trichinella in animals	439
2.9	ECHINOCOCCOSIS	447
2.9.1	General evaluation of the national situation	447
2.9.2	Echinococcosis in humans	447
2.9.3	Echinococcus in animals	448
2.10	TOXOPLASMOSIS	449
2.10.1	General evaluation of the national situation	449
2.10.2	Toxoplasmosis in humans	449
2.11	RABIES	449
2.11.1	General evaluation of the national situation	449
2.11.2	Rabies in humans	449
2.11.3	Lyssavirus (rabies) in animals	449
2.12	Q-FEVER	451
2.12.1	General evaluation of the national situation	451
3	INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL	452
3.1	ENTEROCOCCUS, NON-PATHOGENIC	453
3.1.1	General evaluation of the national situation	453
3.2	ESCHERICHIA COLI, NON-PATHOGENIC	453
3.2.1	General evaluation of the national situation	453
3.2.2	Antimicrobial resistance in Escherichia coli, non-pathogenic isolates	453
4	INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS	465
4.1	HISTAMINE	466
4.1.1	General evaluation of the national situation	466
4.1.2	Histamine in foodstuffs	467
4.2	ENTEROBACTER SAKAZAKII	469
4.2.1	General evaluation of the national situation	469
4.2.2	Enterobacter sakazakii in foodstuffs	469
4.3	STAPHYLOCOCCAL ENTEROTOXINS	471
4.3.1	General evaluation of the national situation	471
4.3.2	Staphylococcal enterotoxins in foodstuffs	471
5	FOODBORNE OUTBREAKS	473

## **1. ANIMAL POPULATIONS**

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

## **2. INFORMATION ON SPECIFIC ZOONOSES AND ZOONOTIC AGENTS**

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

## **2.1 SALMONELLOSIS**

### **2.1.1 General evaluation of the national situation**

### **2.1.2 Salmonellosis in humans**

### **2.1.3 Salmonella in foodstuffs**

#### **A. Salmonella spp. in eggs and egg products**

##### **Monitoring system**

##### **Sampling strategy**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of Salmonella are compulsory taken by the official vets in the egg establishments as follows:

- samples of eggs for testing of Salmonella - once a quarter (trimester) at egg packing center (EPC);
- samples of eggs and finish products for testing of Salmonella - once a quarter (trimester) at the establishments producing liquid egg;
- samples of eggs and finish products for testing of Salmonella - once a quarter (trimester) at the egg processing establishments.

##### **Frequency of the sampling**

##### **Eggs at egg packing centres (foodstuff based approach)**

Every 3 months

##### **Eggs at retail**

Once a year and in case of consumer complaints, suspicions or food borne outbreaks.

##### **Raw material for egg products (at production plant)**

Every 3 months

##### **Egg products (at production plant and at retail)**

Egg products at production plant: Every 3 months; Egg products at retail: Once a year and in case of consumer complaints, suspicions or food borne outbreaks.

##### **Type of specimen taken**

##### **Eggs at egg packing centres (foodstuff based approach)**

Surface of egg shells and mixture of white and yellow.

##### **Eggs at retail**

Surface of egg shells and mixture of white and yolk.

**Raw material for egg products (at production plant)**

Other: egg white, egg yolk and mixture of white and yolk.

**Egg products (at production plant and at retail)**

Egg products: Other: egg white, egg yolk and mixture of white and yolk.

**Methods of sampling (description of sampling techniques)**

**Eggs at retail**

**Raw material for egg products (at production plant)**

**Egg products (at production plant and at retail)**

**Definition of positive finding**

**Eggs at egg packing centres (foodstuff based approach)**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

**Eggs at retail**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

**Raw material for egg products (at production plant)**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

**Egg products (at production plant and at retail)**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

### **Diagnostic/analytical methods used**

#### **Eggs at egg packing centres (foodstuff based approach)**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **Eggs at retail**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **Raw material for egg products (at production plant)**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **Egg products (at production plant and at retail)**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

### **Preventive measures in place**

### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated and the susceptibility testing of *Salmonella* is a part of the programme.

### **Notification system in place**

Laboratories have to notify the positive results to the regional competent authority and them they notify the food business operator.

### **Results of the investigation**

In the Sanitary Veterinary and Food Safety County Laboratories were analyzed 524 samples eggs and egg products - 292 table eggs.

There were samples bought in the national surveillance and surveillance – HACCP and own checks.

From the analyzed samples were not found positive.

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

**Relevance of the findings in animals to findings in foodstuffs and to human cases**

## **B. *Salmonella* spp. in broiler meat and products thereof**

### **Monitoring system**

#### **Sampling strategy**

##### **At slaughterhouse and cutting plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at slaughterhouses and cutting plants as follows:

- samples on broiler carcasses surfaces for testing of *Salmonella* - once a month (monthly) at slaughterhouse;
- samples of broiler meat including fresh meat (muscle tissue) and offals (liver) for testing of *Salmonella* - once a month (monthly) at slaughterhouse;
- samples of broiler meat for testing of *Salmonella* - once a quarter (trimester) at cutting plant.

According to the technical specifications included in the Commission Decision 2007/516/EC.

##### **At meat processing plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at meat processing plant as follows:

- samples of meat products for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of broiler minced meat for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of broiler meat preparation for testing of *Salmonella* - once a quarter (trimester) at meat processing plant.

According to the provisions of the Regulation 2005/2073/EC, amended by the Regulation 2007/1441/EC, the food business operators of establishments producing minced meat, meat preparations or mechanically separated meat shall take samples for microbiological analysis at least once a week. The day of sampling shall be changed each week to ensure that each day of the week is covered.

In the case of sampling for *Salmonella* analyses of minced meat, meat preparations and carcasses, the frequency may be reduced to fortnightly if satisfactory results have been obtained for 30 consecutive weeks.

##### **At retail**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets annualy and in case of consumer complaints, suspicions or food borne outbreaks.

**Frequency of the sampling**

**At slaughterhouse and cutting plant**

Other: samples of broiler carcasses surfaces - once a month at slaughterhouse; samples of pig meat including fresh meat (muscle tissue) and offals (liver) - once a month at slaughterhouse; samples of broiler meat - once a quarter at cutting plant. According to the technical specifications included in the Commission Decision 2007/516/EC.

**At meat processing plant**

Other: samples of meat products, minced meat and meat preparation - once a quarter.

**At retail**

Other: annualy and in case of consumer complaints, suspicions or food borne outbreaks.

**Type of specimen taken**

**At slaughterhouse and cutting plant**

Other: surface of carcass, fresh meat including muscle tissue and offals (liver).

**At meat processing plant**

Other: meat products, meat preparation, minced meat, mechanically separated meat (MSM).

**At retail**

Other: raw material (fresh meat) and finish products (meat products, meat preparations, minced meat).

**Methods of sampling (description of sampling techniques)**

**At slaughterhouse and cutting plant**

According to the provisions of Regulation 2005/2073/EC, amended by the Regulation 2007/1441/EC, for the *Salmonella* analyses, a minimum of 15 carcasses were sampled at random during each sampling session and after chilling. A piece of approximately 10 g from neck skin was obtained from each carcase. On each occasion the neck skin samples from three carcases were pooled before examination in order to form  $5 \times 25$  g final samples.

For broiler meat including fresh meat (muscle tissue) and offals (liver) at slaughterhouse level and for broiler at cutting plant level the final sample it is obtained in the lab and consists of at least 25 grames of each product.

**At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073 a sample consists of 5 pooled samples were taken.
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, a sample consists of 1 sample was taken.

#### **At retail**

According to the provision of Regulation 2073/2005/EC, in the framework of National Surveillance Programme and of food business operators own control programmes.

#### **Definition of positive finding**

##### **At slaughterhouse and cutting plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams; for the carcasses n=50, absence in the area tested per carcass.
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

##### **At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **At retail**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **Diagnostic/analytical methods used**

##### **At slaughterhouse and cutting plant**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

**At meat processing plant**

Bacteriological method:SR EN ISO 6579/2003 AC:2006

**At retail**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

**Preventive measures in place**

**Control program/mechanisms**

**The control program/strategies in place**

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated and the susceptibility testing of *Salmonella* is a part of the programme.

In 2008 year in Romania has been implemented and developed a baseline study according to the Commission Decision 2007/516/EC concerning a financial contribution from the Community towards a survey on the prevalence and antimicrobial resistance of *Campylobacter* spp. in broiler flocks and on the prevalence of *Campylobacter* spp. and *Salmonella* spp. in broiler carcasses to be carried out in the Member States.

**Notification system in place**

Laboratories have to notify the positive results to the regional and central authority and the regional authority notify the food business operator.

**Results of the investigation**

In the Sanitary Veterinary and Food Safety County Laboratories were analyzed 7675 samples of carcasses, broiler meat, meat preparation and meat products.

In Institute of Hygiene and Veterinary Public Health, which is the National Reference Laboratory for *Salmonella*, were analyzed 408 samples: broiler carcasses (neck skin, samples from Decision 516/2007).

There were samples bought in the national surveillance and surveillance – HACCP and own cheks.

From the analyzed samples 51 were found pozitive.

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

*Salmonella* strains were 51 isolated from:

- broiler carcasses from Decision 516/2007(22);
- broiler carcasses chilled (1);
- fresh meat(22);
- mechanically separated meat - MSM(1);

- liver(5).

## **C. *Salmonella* spp. in turkey meat and products thereof**

### **Monitoring system**

#### **Sampling strategy**

##### **At slaughterhouse and cutting plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at slaughterhouses and cutting plants as follows:

- samples on turkey carcasses surfaces for testing of *Salmonella* - once a month (monthly) at slaughterhouse;
- samples of turkey meat including fresh meat (muscle tissue) and offals (liver) for testing of *Salmonella* - once a month (monthly) at slaughterhouse;
- samples of turkey meat for testing of *Salmonella* - once a quarter (trimester) at cutting plant.

##### **At meat processing plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at meat processing plant as follows:

- samples of meat products for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of turkey minced meat for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of turkey meat preparation for testing of *Salmonella* - once a quarter (trimester) at meat processing plant.

According to the provisions of the Regulation 2005/2073/EC, amended by the Regulation 2007/1441/EC, the food business operators of establishments producing minced meat, meat preparations or mechanically separated meat shall take samples for microbiological analysis at least once a week. The day of sampling shall be changed each week to ensure that each day of the week is covered.

In the case of sampling for *Salmonella* analyses of minced meat, meat preparations and carcasses, the frequency may be reduced to fortnightly if satisfactory results have been obtained for 30 consecutive weeks.

##### **At retail**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets annualy and in case of consumer complaints, suspicions or food borne outbreaks.

### **Frequency of the sampling**

#### **At slaughterhouse and cutting plant**

Other: samples of broiler carcasses surfaces - once a month at slaughterhouse; samples of pig meat including fresh meat (muscle tissue) and offals (liver) - once a month at slaughterhouse; samples of broiler meat - once a quarter at cutting plant.

#### **At meat processing plant**

Other: samples of meat products, minced meat and meat preparation - once a quarter.

#### **At retail**

Other: annualy and in case of consumer complaints, suspicions or food borne outbreaks.

### **Type of specimen taken**

#### **At slaughterhouse and cutting plant**

Other: surface of carcass, fresh meat including muscle tissue and offals (liver).

#### **At meat processing plant**

Other: meat products, meat preparation, minced meat, mechanically separated meat (MSM).

#### **At retail**

Other: raw material (fresh meat) and finish products (meat products, meat preparations, minced meat).

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

#### **At slaughterhouse and cutting plant**

According to the provisions of Regulation 2005/2073/EC, amended by the Regulation 2007/1441/EC, for the *Salmonella* analyses, a minimum of 15 carcasses were sampled at random during each sampling session and after chilling. A piece of approximately 10 g from neck skin was obtained from each carcase. On each occasion the neck skin samples from three carcases were pooled before examination in order to form  $5 \times 25$  g final samples.

For turkey meat including fresh meat (muscle tissue) and offals (liver) at slaughterhouse level and for turkey meat at cutting plant level the final sample it is obtained in the lab and consists of at least 25 grames of each product.

#### **At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073 a sample consists of 5 pooled samples were taken.
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, a sample consists of 1 sample was taken.

#### **At retail**

According to the provision of Regulation 2073/2005/EC, in the framework of National Surveillance Programme and of food business operators own control programmes.

#### **Definition of positive finding**

##### **At slaughterhouse and cutting plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 10 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

##### **At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 10 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **At retail**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 10 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **Diagnostic/analytical methods used**

##### **At slaughterhouse and cutting plant**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

##### **At meat processing plant**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **At retail**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **Preventive measures in place**

#### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated and the susceptibility testing of *Salmonella* is a part of the programme.

### **Notification system in place**

Laboratories have to notify the positive results to the regional and central authority and the regional authority notify the food business operator.

### **Results of the investigation**

In the Sanitary Veterinary and Food Safety County Laboratories were analyzed 154 samples from meat, CSM, minced meat, meat preparation and meat products. There were samples bought in the national surveillance and surveillance – HACCP and own checks. From the analyzed samples was found 1 positive samples in fresh meat.

## **D. *Salmonella* spp. in pig meat and products thereof**

### **Monitoring system**

#### **Sampling strategy**

##### **At slaughterhouse and cutting plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at slaughterhouses and cutting plants as follows:

- samples on pig carcasses surfaces for testing of *Salmonella*-once a month (monthly) at slaughterhouse;
- samples of pig meat including fresh meat (muscle tissue) and offals (liver, kidney) for testing of *Salmonella*-once a month (monthly) at slaughterhouse;
- samples of pig meat for testing of *Salmonella* - once a quarter (trimester) at cutting plant.

##### **At meat processing plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at meat processing plant as follows:

- samples of meat products for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of pig minced meat for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of pig meat preparation for testing of *Salmonella* - once a quarter (trimester) at meat processing plant.

According to the provisions of the Regulation 2005/2073/EC, amended by the Regulation 2007/1441/EC, the food business operators of establishments producing minced meat, meat preparations or mechanically separated meat shall take samples for microbiological analysis at least once a week. The day of sampling shall be changed each week to ensure that each day of the week is covered.

In the case of sampling for *Salmonella* analyses of minced meat, meat preparations and carcasses, the frequency may be reduced to fortnightly if satisfactory results have been obtained for 30 consecutive weeks.

##### **At retail**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets annualy and in case of

consumer complaints, suspicions or food borne outbreaks.

**Frequency of the sampling**

**At slaughterhouse and cutting plant**

Other: samples of pig carcasses surfaces - once a month at slaughterhouse; samples of pig meat including fresh meat (muscle tissue) and offals (liver, kidney) - once a month at slaughterhouse; samples of pig meat - once a quarter at cutting plant.

**At meat processing plant**

Other: samples of meat products, minced meat and meat preparation - once a quarter.

**At retail**

Other: annualy and in case of consumer complaints, suspicions or food borne outbreaks.

**Type of specimen taken**

**At slaughterhouse and cutting plant**

Other: surface of carcass, fresh meat including muscle tissue and offals (liver, kidney)

**At meat processing plant**

Other: meat products, meat preparation, minced meat

**At retail**

Other: raw material (fresh meat) and finish products (meat products, meat preparations, minced meat)

**Methods of sampling (description of sampling techniques)**

**At slaughterhouse and cutting plant**

According to the provisions of the Regulation 2005/2073/EC, ammended by the Regulation 2007/1441/EC,five pig carcasses shall be sampled at random during each sampling session. Sample sites must be selected taking into account the slaughter technology used in each plant.

The sampling for Salmonella analyses is performed using an abrasive sponge sampling method. Areas most likely to be contaminated shall be selected. The total sampling area shall cover a minimum of 400 cm<sup>2</sup>.

For pig meat including fresh meat (muscle tissue) and offals (liver, kidney) at slaughterhouse level and for pig meat at cutting plant level the final sample it is obtained in the lab and consists of at least 25 grames of each product.

**At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073 a sample consists of 5 pooled samples were taken.

- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, a sample consists of 1 sample was taken.

#### **At retail**

According to the provision of Regulation 2073/2005/EC, in the framework of National Surveillance Programme and of food business operators own control programmes.

#### **Definition of positive finding**

##### **At slaughterhouse and cutting plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams; for the carcasses n=50, absence in the area tested per carcass.
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

##### **At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **At retail**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams.
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **Diagnostic/analytical methods used**

##### **At slaughterhouse and cutting plant**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

##### **At meat processing plant**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **At retail**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated and the susceptibility testing of *Salmonella* is a part of the programme.

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

Pig meat and products thereof are considered to be positive when *Salmonella* spp. is isolated from a single sample.

A positive laboratory finding of *Salmonella* spp. it is followed by a notification by RASFF to all levels (central, regional and local). Then all the food chain it is controlled in order to identify the source of contamination.

The contaminated batches of pig meat are traced back and detained under restrictions, till the results of *Salmonella* serotyping is communicated and depending on the serotype of *Salmonella* the different measures are applied.

If the sample of pig meat was found positive for *Salmonella Enteritidis* and/or *Salmonella Typhimurium* then the whole batch of pig meat are declared unfitted for human consumption and are denatured.

If the sample of pig meat was found positive for *Salmonella* spp., other than *Salmonella Enteritidis* and *Salmonella Typhimurium*, then the pig meat could be admitted for human consumption only if it is undergone to an adequate heat treatment, under veterinary surveillance and if the results of microbiological analysis of the pig meat heat treated were found negative for *Salmonella* spp.

If the sample of pig meat products was found positive for *Salmonella* spp. then the whole batch of pig meat products are declared unfitted for human consumption and are denatured.

### **Notification system in place**

Laboratory has to notify the positive result to the regional and central authority and the regional authority notify the food business operator.

### **Results of the investigation**

In the Sanitary Veterinary and Food Safety County Laboratories were analyzed 18113 samples of carcasses surface, fresh pig meat, meat preparation and meat products. There were samples bought in the national surveillance and food business operators surveillance programmes – HACCP and own checks.

From the total analyzed samples 72 were found positive for *Salmonella*.

See the table *Salmonella* in red meat and products thereof.

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

*Salmonella* strains were isolated from pig fresh meat (43), pig carcasses (19), meat preparation(1), minced meat (8) and pork liver (1) which represented the main infection sources, *Salmonella* situation.

## **E. *Salmonella* spp. in bovine meat and products thereof**

### **Monitoring system**

#### **Sampling strategy**

##### **At slaughterhouse and cutting plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at slaughterhouses and cutting plants as follows:

- samples on bovine carcasses surfaces for testing of *Salmonella* - once a month (monthly) at slaughterhouse;
- samples of bovine meat, including fresh meat (muscle tissue) and offals (liver, kidney) for testing of *Salmonella* - once a month (monthly) at slaughterhouse;
- samples of bovine meat for testing of *Salmonella* - once a quarter (trimester) at cutting plant.

##### **At meat processing plant**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets acting at meat processing plant as follows:

- samples of meat products for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of bovine minced meat for testing of *Salmonella* - once a quarter (trimester) at meat processing plant;
- samples of bovine meat preparation for testing of *Salmonella* - once a quarter (trimester) at meat processing plant.

According to the provisions of the Regulation 2005/2073/EC, amended by the Regulation 2007/1441/EC, the food business operators of establishments producing minced meat, meat preparations or mechanically separated meat shall take samples for microbiological analysis at least once a week. The day of sampling shall be changed each week to ensure that each day of the week is covered.

In the case of sampling for *Salmonella* analyses of minced meat, meat preparations and carcasses, the frequency may be reduced to fortnightly if satisfactory results have been obtained for 30 consecutive weeks.

##### **At retail**

According to the provisions of the Romanian National Surveillance Programme approved by Order 4/31.01.2008, the samples for monitoring and testing of *Salmonella* are compulsory taken by the official vets annualy and in case of

consumer complaints, suspicions or food borne outbreaks.

### **Frequency of the sampling**

#### **At slaughterhouse and cutting plant**

Other: samples of bovine carcasses surfaces - once a month at slaughterhouse; samples of bovine meat including fresh meat (muscle tissue) and offals (liver, kidney) - once a month at slaughterhouse; samples of bovine meat - once a quarter at cutting plant.

#### **At meat processing plant**

Other: samples of meat products, minced meat and meat preparation - once a quarter.

#### **At retail**

Other: annualy and in case of consumer complaints, suspicions or food borne outbreaks.

### **Type of specimen taken**

#### **At slaughterhouse and cutting plant**

Other: surface of carcass, fresh meat (muscle tissue), offals (liver, kidney).

#### **At meat processing plant**

Other: meat products, meat preparation, minced meat

#### **At retail**

Other: raw material (fresh meat) and finish products (meat products, meat preparations, minced meat)

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

#### **At slaughterhouse and cutting plant**

According to the provisions of the Regulation 2005/2073/EC, ammended by the Regulation 2007/1441/EC,five bovine carcasses shall be sampled at random during each sampling session. Sample sites must be selected taking into account the slaughter technology used in each plant.

The sampling for Salmonella analyses is performed using an abrasive sponge sampling method. Areas most likely to be contaminated shall be selected. The total sampling area shall cover a minimum of 400 cm<sup>2</sup>.

For bovine meat including fresh meat (muscle tissue) and offals (liver, kidney) at slaughterhouse level and for bovine meat at cutting plant level the final sample it is obtained in the lab and consists of 25 grames of each product.

#### **At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073 a sample consists of 5 pooled samples were taken.
- for the matrix which were not found in Regulation 2005/2073, but there were in

The National Surveillance Programme no 4/31.01.2008, a sample consists of 1 sample was taken.

#### **At retail**

According to the provision of Regulation 2073/2005/EC, in the framework of National Surveillance Programme and of food business operators own control programmes.

#### **Definition of positive finding**

##### **At slaughterhouse and cutting plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams; for the carcasses n=50, absence in the area tested per carcass.
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

##### **At meat processing plant**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **At retail**

There are 2 situations:

- for the matrix which are found in Regulation 2005/2073, c=0, absence in 25 grams;
- for the matrix which were not found in Regulation 2005/2073, but there were in The National Surveillance Programme no 4/31.01.2008, foodstuff is considered to be positive when *Salmonella* spp is detected.

#### **Diagnostic/analytical methods used**

##### **At slaughterhouse and cutting plant**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

##### **At meat processing plant**

Bacteriological method:SR EN ISO 6579/2003 AC:2006

#### **At retail**

Bacteriological method: SR EN ISO 6579/2003 AC:2006

### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated and the susceptibility testing of *Salmonella* is a part of the programme.

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

Bovine meat and products thereof are considered to be positive when *Salmonella* spp. is isolated from a single sample.

A positive laboratory finding of *Salmonella* spp. it is followed by a notification by RASFF to all levels (central, regional and local). Then all the food chain it is controlled in order to identify the source of contamination.

The contaminated batches of bovine meat are traced back and detained under restrictions, till the results of *Salmonella* serotyping is communicated and depending on the serotype of *Salmonella* the different measures are applied.

If the sample of bovine meat was found positive for *Salmonella Enteritidis* and/or *Salmonella Typhimurium* then the whole batch of bovine meat are declared unfitted for human consumption and are denatured.

If the sample of bovine meat was found positive for *Salmonella* spp., other than *Salmonella Enteritidis* and *Salmonella Typhimurium*, then the bovine meat could be admitted for human consumption only if it is undergone to an adequate heat treatment, under veterinary surveillance and if the results of microbiological analysis of the bovine meat heat treated were found negative for *Salmonella* spp.

If the sample of bovine meat products was found positive for *Salmonella* spp. then the whole batch of bovine meat products are declared unfitted for human consumption and are denatured.

### **Notification system in place**

Laboratory has to notify the positive result to the regional and central authority and the regional authority notify the food business operator.

### **Results of the investigation**

In the Sanitary Veterinary and Food Safety County Laboratories were analyzed:

- 7403 samples from bovine (carcasses, fresh meat, meat preparation and meat products) and 13 samples were found positive for *Salmonella*;
- 6410 samples of meat preparation (bovine and pig) and 30 samples were found positive for *Salmonella*;
- 4681 samples of meat products (bovine and pig);
- 3077 samples of minced meat (bovine and pig) and 38 samples were found

pozitive for *Salmonella*.

There were samples bought in the national surveillance and surveillance – HACCP and own cheks.

See the table *Salmonella* in red meat and products thereof.

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

*Salmonella* strains were isolated from bovine carcasses (3) and from fresh meat 10.

*Salmonella* strains were also isolated from 30 samples of meat preparation (bovine and pig meat) and from 38 samples of minced meat (including bovine and pig meat).

**Relevance of the findings in animals to findings in foodstuffs and to human cases**

Bovine meat is not consider to be an important source of human cases in Romania.

**Table Salmonella in poultry meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Bredeney	S. Colindale	S. Enteritidis	S. Hadar	S. Infantis	S. Koessen
Meat from broilers ( <i>Gallus gallus</i> ) - at cutting plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	189	0						
Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - neck skin - Surveillance - HACCP and own checks	SVFSL	batch	25	2009	1						
Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - neck skin - Survey - EU baseline survey	IHVPH	batch	25	408	22	4			2	1	
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	171	2						
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	123	0						
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	295	7					1	1
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Surveillance - official controls - objective sampling	SVFSL	batch	25	2027	13			3	9		
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - chilled - at retail - Surveillance - HACCP and own checks	SVFSL	batch	25	142	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	105	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	57	0						

**Table Salmonella in poultry meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Bredeney</i>	<i>S. Colindale</i>	<i>S. Enteritidis</i>	<i>S. Hadar</i>	<i>S. Infantis</i>	<i>S. Koessen</i>
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	262	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	26	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	240	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	73	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	182	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	122	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	102	0						
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	416	0						
Meat from broilers ( <i>Gallus gallus</i> ) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	10	115	1						

**Table Salmonella in poultry meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Bredeney</i>	<i>S. Colindale</i>	<i>S. Enteritidis</i>	<i>S. Hadar</i>	<i>S. Infantis</i>	<i>S. Koessen</i>
Meat from broilers ( <i>Gallus gallus</i> ) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	10	72	0						
Meat from broilers ( <i>Gallus gallus</i> ) - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	10	44	0						
Meat from broilers ( <i>Gallus gallus</i> ) - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	10	131	0						
Meat from broilers ( <i>Gallus gallus</i> ) - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	10	13	0						
Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSL	batch	25	306	3			2	1		
Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	45	2			2			
Meat from duck - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	11	0						
Meat from geese - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0						
Meat from other poultry species - fresh - chilled - at retail - Surveillance - official controls - suspect sampling	SVFSL	single	25	1	0						
Meat from turkey - fresh - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0						

**Table Salmonella in poultry meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Bredeney	S. Colindale	S. Enteritidis	S. Hadar	S. Infantis	S. Koessen
Meat from turkey - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	30	0						
Meat from turkey - fresh - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	38	1						
Meat from turkey - fresh - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	11	0						
Meat from turkey - fresh - at slaughterhouse - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0						
Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	16	0						
Meat from turkey - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	8	0						
Meat from turkey - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0						
Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0						
Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	5	0						
Meat from turkey - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0						

**Table Salmonella in poultry meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Bredeney	S. Colindale	S. Enteritidis	S. Hadar	S. Infantis	S. Koessen
Meat from turkey - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	10	3	0						
Meat from turkey - minced meat - intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	10	15	0						
Meat from turkey - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	10	3	0						
Meat, mixed meat - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	24	0						
Meat, mixed meat - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	34	0						
Meat, mixed meat - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0						
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	184	0						
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	93	0						
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0						

**Table Salmonella in poultry meat and products thereof**

	S. Lexington	S. Mapo	S. Saintpaul	S. Senftenberg	S. Typhimurium	S. Virchow	S. enterica subsp. enterica
Meat from broilers ( <i>Gallus gallus</i> ) - at cutting plant - domestic production - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks				1			
Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Survey - EU baseline survey	1				1	13	
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling			2				
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at processing plant - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at retail - Surveillance - official controls - objective sampling						5	
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at slaughterhouse - Surveillance - official controls - objective sampling		1					
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - chilled - at retail - Surveillance - HACCP and own checks							
Meat from broilers ( <i>Gallus gallus</i> ) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling							

**Table Salmonella in poultry meat and products thereof**

	S. Lexington	S. Mapo	S. Saintpaul	S. Senftenberg	S. Typhimurium	S. Virchow	S. enterica subsp. enterica
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks							
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks							
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks							
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks							1

**Table Salmonella in poultry meat and products thereof**

	S. Lexington	S. Mapo	S. Saintpaul	S. Senftenberg	S. Typhimurium	S. Virchow	S. enterica subsp. enterica
Meat from broilers ( <i>Gallus gallus</i> ) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks							
Meat from broilers ( <i>Gallus gallus</i> ) - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling							
Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling							
Meat from duck - at retail - Surveillance - official controls - objective sampling							
Meat from geese - at retail - Surveillance - official controls - objective sampling							
Meat from other poultry species - fresh - chilled - at retail - Surveillance - official controls - suspect sampling							
Meat from turkey - fresh - at processing plant - Surveillance - official controls - objective sampling							

**Table Salmonella in poultry meat and products thereof**

	S. Lexington	S. Mapo	S. Saintpaul	S. Senftenberg	S. Typhimurium	S. Virchow	S. enterica subsp. enterica
Meat from turkey - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks							
Meat from turkey - fresh - at retail - Surveillance - official controls - objective sampling					1		
Meat from turkey - fresh - at retail - imported - Surveillance - HACCP and own checks							
Meat from turkey - fresh - at slaughterhouse - Surveillance - official controls - objective sampling							
Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling							
Meat from turkey - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling							
Meat from turkey - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling							
Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling							
Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks							
Meat from turkey - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling							

**Table Salmonella in poultry meat and products thereof**

	S. Lexington	S. Mapo	S. Saintpaul	S. Senftenberg	S. Typhimurium	S. Virchow	S. enterica subsp. enterica
Meat from turkey - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling							
Meat from turkey - minced meat - intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks							
Meat from turkey - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling							
Meat, mixed meat - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks							
Meat, mixed meat - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling							
Meat, mixed meat - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling							
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks							
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling							
Meat, mixed meat - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling							

## **Table Salmonella in poultry meat and products thereof**

### **Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories. There are 41 laboratories in 42 counties.

IHVPH: Institute of Hygiene and Veterinary Public Health, which is the National Reference Laboratory for Salmonella.

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Cheeses made from cows' milk - soft and semi-soft - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0			
Cheeses made from cows' milk - soft and semi-soft - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	51	0			
Cheeses made from cows' milk - soft and semi-soft - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	150	0			
Cheeses made from cows' milk - soft and semi-soft - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	24	0			
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	70	0			
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	209	0			
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	125	0			
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	66	0			
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	110	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	59	0			
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - official controls - selective sampling	SVFSL	batch	25	15	0			
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - official controls - suspect sampling	SVFSL	single	25	2	0			
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	221	0			
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - domestic production - Surveillance - official controls - suspect sampling	SVFSL	single	25	4	0			
Cheeses made from goats' milk - soft and semi-soft - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	4	0			
Cheeses made from goats' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0			
Cheeses made from goats' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - selective sampling	SVFSL	batch	25	1	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Cheeses made from goats' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0			
Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0			
Cheeses made from sheep's milk - soft and semi-soft - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	7	0			
Cheeses made from sheep's milk - soft and semi-soft - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	66	0			
Cheeses made from sheep's milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	37	0			
Cheeses made from sheep's milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	46	0			
Cheeses made from sheep's milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - selective sampling	SVFSL	batch	25	8	0			
Cheeses made from sheep's milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	78	0			
Cheeses made from sheep's milk - unspecified - made from pasteurised milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	63	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	139	0			
Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail - domestic production - Surveillance - official controls - suspect sampling	SVFSL	single	25	4	0			
Cheeses, made from mixed milk from cows, sheep and/or goats - unspecified - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	7	0			
Cheeses, made from mixed milk from cows, sheep and/or goats - unspecified - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	16	0			
Cheeses, made from mixed milk from cows, sheep and/or goats - unspecified - made from raw or low heat-treated milk - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0			
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0			
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	13	0			
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	67	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at processing plant - domestic production - Surveillance - official controls - selective sampling	SVFSL	batch	25	2	0			
Dairy products (excluding cheeses) - butter - made from pasteurised milk - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	46	0			
Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	26	0			
Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	8	0			
Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0			
Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	83	0			
Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	51	0			
Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	54	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified
Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0			
Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	14	0			
Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	807	0			
Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	825	0			
Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	235	0			
Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0			
Dairy products (excluding cheeses) - dairy products, not specified - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0			
Dairy products (excluding cheeses) - dairy products, not specified - made from raw or low heat-treated milk - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	22	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	1	1		
Dairy products (excluding cheeses) - ice-cream - at cutting plant - domestic production - Surveillance - official controls - selective sampling	SVFSL	batch	25	8	0			
Dairy products (excluding cheeses) - ice-cream - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	250	0			
Dairy products (excluding cheeses) - ice-cream - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	162	0			
Dairy products (excluding cheeses) - ice-cream - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	175	0			
Dairy products (excluding cheeses) - ice-cream - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0			
Dairy products (excluding cheeses) - milk powder and whey powder - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	11	0			
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	51	0			
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	48	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - domestic production - Surveillance - official controls - selective sampling	SVFSL	batch	25	1	0			
Dairy products (excluding cheeses) - milk powder and whey powder - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	19	0			
Milk, cows' - pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	8	0			
Milk, cows' - pasteurised milk - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	57	0			
Milk, cows' - pasteurised milk - at retail - Surveillance - official controls - suspect sampling	SVFSL	single	25	1	0			
Milk, cows' - raw - intended for direct human consumption - milk - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0			
Milk, cows' - raw - intended for direct human consumption - milk - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0			
Milk, cows' - raw - intended for direct human consumption - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0			
Milk, cows' - raw milk for manufacture - intended for manufacture of pasteurised/UHT products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	164	0			

**Table Salmonella in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Milk, cows' - raw milk for manufacture - intended for manufacture of pasteurised/UHT products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	101	0			
Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	50	0			
Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	41	0			
Milk, goats' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	45	0			

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories. There are 41 laboratories in 42 counties.

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	SVFSL	batch	minimum of	670	3						
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	SVFSL	batch	minimum of	925	0						
Meat from bovine animals - fresh - - meat - Surveillance - official controls - suspect sampling	SVFSL	single	25	1	0						
Meat from bovine animals - fresh - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	14	0						
Meat from bovine animals - fresh - at cutting plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	89	0						
Meat from bovine animals - fresh - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0						
Meat from bovine animals - fresh - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0						
Meat from bovine animals - fresh - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	542	2						
Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	306	0						
Meat from bovine animals - fresh - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	433	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from bovine animals - fresh - at slaughterhouse - Surveillance - official controls - objective sampling	SVFSL	batch	25	1118	3						
Meat from bovine animals - fresh - chilled - meat - Surveillance - HACCP and own checks	SVFSL	batch	25	400	0						
Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	157	5		4				
Meat from bovine animals - fresh - chilled - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	141	0						
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	341	0						
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	823	0						
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	70	0						
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	38	0						
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	18	0						
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	48	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	109	0						
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	166	0						
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	116	0						
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	14	0						
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	54	0						
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	13	0						
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	29	0						
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - environmental sample - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0						
Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	5	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from bovine animals - minced meat - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	8	0						
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	266	0						
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	266	0						
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	88	0						
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	129	0						
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	10	0						
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	70	0						
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	6	0						
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	3240	2						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	1726	3						
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	857	25			4	1		
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	501	0						
Meat from bovine animals and pig - meat products - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	105	0						
Meat from bovine animals and pig - meat products - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	6	0						
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	1080	0						
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	2170	0						
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	279	0						
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	1037	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from bovine animals and pig - meat products - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0						
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0						
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	1888	10	1					1
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	833	13			3			
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	225	0						
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	130	15			2			
Meat from horse - fresh - meat - Surveillance - HACCP and own checks	SVFSL	batch	25	1	0						
Meat from horse - fresh - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0						
Meat from horse - fresh - at slaughterhouse - Surveillance - official controls - objective sampling	SVFSL	batch	25	28	0						
Meat from pig - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks	SVFSL	batch	minimum of	1671	4	1					

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	SVFSL	batch	minimum of	1491	15	5		5		1	
Meat from pig - carcass - chilled - - meat - Surveillance - official controls - objective sampling	SVFSL	batch	25	1438	1						
Meat from pig - fresh - - meat - Surveillance - HACCP and own checks	SVFSL	batch	25	562	0						
Meat from pig - fresh - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	36	0						
Meat from pig - fresh - at cutting plant - Surveillance - HACCP and own checks	SVFSL	batch	25	361	1						
Meat from pig - fresh - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	16	0						
Meat from pig - fresh - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0						
Meat from pig - fresh - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	1187	1						
Meat from pig - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	537	1						
Meat from pig - fresh - at processing plant - domestic production - Surveillance - official controls - selective sampling	SVFSL	single	25	5	2						
Meat from pig - fresh - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	285	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from pig - fresh - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	608	24						
Meat from pig - fresh - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	6	0						
Meat from pig - fresh - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	15	0						
Meat from pig - fresh - chilled - at cutting plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	511	13	3		3			
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	40	0						
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	38	0						
Meat from pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	8	0						
Meat from pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0						
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	1017	0						
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	1273	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	158	0						
Meat from pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	81	0						
Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	single	25	3	1						
Meat from pig - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	123	0						
Meat from pig - meat products - cooked, ready-to-eat - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	21	0						
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	1335	0						
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	498	0						
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	137	0						
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	1015	0						
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - suspect sampling	SVFSL	single	25	1	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from pig - meat products - cooked, ready-to-eat - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0						
Meat from pig - meat products - raw but intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0						
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	286	0						
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	66	0						
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	37	0						
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	231	0						
Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	10	1	0						
Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	10	1	0						
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	1369	4	1				1	

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	1098	1						
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - HACCP and own checks	SVFSL	batch	25	350	0						
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	178	3						
Meat from sheep - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	SVFSL	batch	minimum of	58	0						
Meat from sheep - fresh - - meat - Surveillance - official controls - objective sampling	SVFSL	batch	25	40	1						
Meat from sheep - fresh - at cutting plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0						
Meat from sheep - fresh - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	3	0						
Meat from sheep - fresh - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	8	0						
Meat from sheep - fresh - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	25	0						
Meat from sheep - fresh - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	19	0						
Meat from sheep - minced meat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat from sheep - minced meat - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	40	0						
Meat from wild game - land mammals - fresh - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0						
Meat from wild game - land mammals - fresh - at game handling establishment - Surveillance - official controls - objective sampling	SVFSL	single	25	13	0						
Meat from wild game - land mammals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0						
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	99	0						
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	40	0						
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	7	0						
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	12	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	8	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - HACCP and own checks	SVFSL	batch	25	4	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - official controls - objective sampling <sup>1)</sup>	SVFSL	batch	25	11	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - Surveillance - HACCP and own checks	SVFSL	batch	25	17	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	1			1			
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0						

**Table Salmonella in red meat and products thereof**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	S. Agona	S. Bovismorbificans	S. Bredeney	S. Bsilla	S. Chester	S. Colindale
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - HACCP and own checks	SVFSL	batch	25	74	0						
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSL	batch	25	778	0						
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	6	0						
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0						

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks									2		
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - - meat - Surveillance - official controls - suspect sampling											
Meat from bovine animals - fresh - at catering - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from bovine animals - fresh - at cutting plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - fresh - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at packing centre - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at processing plant - Surveillance - official controls - objective sampling				1							1
Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - fresh - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at slaughterhouse - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - chilled - meat - Surveillance - HACCP and own checks											
Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - chilled - at retail - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - environmental sample - Surveillance - HACCP and own checks											
Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance - HACCP and own checks											
Meat from bovine animals - minced meat - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks											
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		1		1							
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	1										

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat products - at catering - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat products - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat products - at retail - imported - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks			1		2				2		
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat from horse - fresh - meat - Surveillance - HACCP and own checks											
Meat from horse - fresh - at processing plant - Surveillance - official controls - objective sampling											
Meat from horse - fresh - at slaughterhouse - Surveillance - official controls - objective sampling											
Meat from pig - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks											
Meat from pig - carcass - chilled - carcass swabs - Surveillance - official controls - objective sampling											
Meat from pig - carcass - chilled - meat - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from pig - fresh - meat - Surveillance - HACCP and own checks											
Meat from pig - fresh - at catering - Surveillance - official controls - objective sampling											
Meat from pig - fresh - at cutting plant - Surveillance - HACCP and own checks											
Meat from pig - fresh - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from pig - fresh - at packing centre - Surveillance - official controls - objective sampling											
Meat from pig - fresh - at processing plant - Surveillance - official controls - objective sampling							1				
Meat from pig - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks	1										
Meat from pig - fresh - at processing plant - domestic production - Surveillance - official controls - selective sampling											
Meat from pig - fresh - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from pig - fresh - at retail - domestic production - Surveillance - official controls - objective sampling				1						1	
Meat from pig - fresh - at retail - imported - Surveillance - HACCP and own checks											
Meat from pig - fresh - at retail - imported - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from pig - fresh - chilled - at cutting plant - Surveillance - official controls - objective sampling				3							
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - suspect sampling											
Meat from pig - meat products - cooked, ready-to-eat - at retail - imported - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
<b>Meat from pig - meat products - raw but intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling</b>											
<b>Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling</b>											
<b>Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks</b>											
<b>Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks</b>											
<b>Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling</b>											
<b>Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks</b>											
<b>Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling</b>											
<b>Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks</b>				2							
<b>Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling</b>					1						

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - HACCP and own checks											
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling								2			
Meat from sheep - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - - meat - Surveillance - official controls - objective sampling									1		
Meat from sheep - fresh - at cutting plant - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - at processing plant - Surveillance - HACCP and own checks											
Meat from sheep - fresh - at processing plant - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - at retail - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from sheep - minced meat - at processing plant - Surveillance - official controls - objective sampling											
Meat from sheep - minced meat - at retail - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat from wild game - land mammals - fresh - at catering - Surveillance - official controls - objective sampling											
Meat from wild game - land mammals - fresh - at game handling establishment - Surveillance - official controls - objective sampling											
Meat from wild game - land mammals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - HACCP and own checks											
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - HACCP and own checks											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at hospital or care home - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - HACCP and own checks											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - official controls - objective sampling <sup>1)</sup>											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - Surveillance - HACCP and own checks											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - imported - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Derby	S. Enteritidis	S. Essen	S. Give	S. Infantis	S. Isangi	S. Kedougou	S. Kivu	S. Kortrijk	S. Kottbus	S. Kristianstad
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling											
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - HACCP and own checks											
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - official controls - objective sampling											

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks		1									
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - - meat - Surveillance - official controls - suspect sampling											
Meat from bovine animals - fresh - at catering - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at cutting plant - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from bovine animals - fresh - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at packing centre - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - fresh - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - fresh - at slaughterhouse - Surveillance - official controls - objective sampling		3									
Meat from bovine animals - fresh - chilled - meat - Surveillance - HACCP and own checks											
Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling							1				
Meat from bovine animals - fresh - chilled - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - environmental sample - Surveillance - HACCP and own checks											
Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance - HACCP and own checks											
Meat from bovine animals - minced meat - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks											
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling										1	
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling	1				4			5			9
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat products - at catering - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from bovine animals and pig - meat products - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - meat products - at retail - imported - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling											
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		3									
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		5									

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling											13
Meat from horse - fresh - - meat - Surveillance - HACCP and own checks											
Meat from horse - fresh - at processing plant - Surveillance - official controls - objective sampling											
Meat from horse - fresh - at slaughterhouse - Surveillance - official controls - objective sampling											
Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks			1					1			
Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling							2				2
Meat from pig - carcass - chilled - - meat - Surveillance - official controls - objective sampling							1				
Meat from pig - fresh - - meat - Surveillance - HACCP and own checks											
Meat from pig - fresh - at catering - Surveillance - official controls - objective sampling											
Meat from pig - fresh - at cutting plant - Surveillance - HACCP and own checks		1									

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from pig - fresh - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from pig - fresh - at packing centre - Surveillance - official controls - objective sampling											
Meat from pig - fresh - at processing plant - Surveillance - official controls - objective sampling											
Meat from pig - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from pig - fresh - at processing plant - domestic production - Surveillance - official controls - selective sampling				2							
Meat from pig - fresh - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from pig - fresh - at retail - domestic production - Surveillance - official controls - objective sampling								1		1	20
Meat from pig - fresh - at retail - imported - Surveillance - HACCP and own checks											
Meat from pig - fresh - at retail - imported - Surveillance - official controls - objective sampling											
Meat from pig - fresh - chilled - at cutting plant - Surveillance - official controls - objective sampling		4									
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling											
Meat from pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at hospital or care home - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - suspect sampling											
Meat from pig - meat products - cooked, ready-to-eat - at retail - imported - Surveillance - official controls - objective sampling											
Meat from pig - meat products - raw but intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling											
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks											
Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks											
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling											
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - HACCP and own checks											
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling						1					
Meat from sheep - carcass - chilled - carcass swabs - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - meat - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat from sheep - fresh - at cutting plant - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - at processing plant - Surveillance - HACCP and own checks											
Meat from sheep - fresh - at processing plant - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - at retail - Surveillance - official controls - objective sampling											
Meat from sheep - fresh - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from sheep - minced meat - at processing plant - Surveillance - official controls - objective sampling											
Meat from sheep - minced meat - at retail - domestic production - Surveillance - HACCP and own checks											
Meat from wild game - land mammals - fresh - at catering - Surveillance - official controls - objective sampling											
Meat from wild game - land mammals - fresh - at game handling establishment - Surveillance - official controls - objective sampling											
Meat from wild game - land mammals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks											

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - HACCP and own checks											
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - HACCP and own checks											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at hospital or care home - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - HACCP and own checks											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - official controls - objective sampling	<sup>1)</sup>										

**Table Salmonella in red meat and products thereof**

	S. Litchfield	S. Livingstone	S. London	S. Montevideo	S. Muenchen	S. Rissen	S. Ruzizi	S. Saintpaul	S. Sandiego	S. Tennessee	S. Typhimurium
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at processing plant - domestic production - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - Surveillance - HACCP and own checks											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - domestic production - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - imported - Surveillance - official controls - objective sampling											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - HACCP and own checks											
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling											
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - HACCP and own checks											
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - official controls - objective sampling											

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks		
Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling		
Meat from bovine animals - fresh - - meat - Surveillance - official controls - suspect sampling		
Meat from bovine animals - fresh - at catering - Surveillance - official controls - objective sampling		
Meat from bovine animals - fresh - at cutting plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - fresh - at hospital or care home - Surveillance - official controls - objective sampling		
Meat from bovine animals - fresh - at packing centre - Surveillance - official controls - objective sampling		
Meat from bovine animals - fresh - at processing plant - Surveillance - official controls - objective sampling		
Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - fresh - at retail - Surveillance - official controls - objective sampling		
Meat from bovine animals - fresh - at slaughterhouse - Surveillance - official controls - objective sampling		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from bovine animals - fresh - chilled - meat - Surveillance - HACCP and own checks		
Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling		
Meat from bovine animals - fresh - chilled - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling		
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling		
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks		
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling		
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling		
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling		
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling		
Meat from bovine animals - meat products - raw but intended to be eaten cooked - at retail - environmental sample - Surveillance - HACCP and own checks		
Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance - HACCP and own checks		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from bovine animals - minced meat - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks		
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling		
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling		
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - HACCP and own checks		
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	2	
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals and pig - meat products - at catering - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - meat products - at hospital or care home - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - official controls - objective sampling		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from bovine animals and pig - meat products - at retail - imported - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling		
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	5	
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		
Meat from horse - fresh - meat - Surveillance - HACCP and own checks		
Meat from horse - fresh - at processing plant - Surveillance - official controls - objective sampling		
Meat from horse - fresh - at slaughterhouse - Surveillance - official controls - objective sampling		
Meat from pig - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks	1	

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling		
Meat from pig - carcass - chilled - - meat - Surveillance - official controls - objective sampling		
Meat from pig - fresh - - meat - Surveillance - HACCP and own checks		
Meat from pig - fresh - at catering - Surveillance - official controls - objective sampling		
Meat from pig - fresh - at cutting plant - Surveillance - HACCP and own checks		
Meat from pig - fresh - at hospital or care home - Surveillance - official controls - objective sampling		
Meat from pig - fresh - at packing centre - Surveillance - official controls - objective sampling		
Meat from pig - fresh - at processing plant - Surveillance - official controls - objective sampling		
Meat from pig - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from pig - fresh - at processing plant - domestic production - Surveillance - official controls - selective sampling		
Meat from pig - fresh - at retail - domestic production - Surveillance - HACCP and own checks		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from pig - fresh - at retail - domestic production - Surveillance - official controls - objective sampling		
Meat from pig - fresh - at retail - imported - Surveillance - HACCP and own checks		
Meat from pig - fresh - at retail - imported - Surveillance - official controls - objective sampling		
Meat from pig - fresh - chilled - at cutting plant - Surveillance - official controls - objective sampling		
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from pig - meat preparation - intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling		
Meat from pig - meat preparation - intended to be eaten cooked - at catering - Surveillance - official controls - objective sampling		
Meat from pig - meat preparation - intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling		
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling		
Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from pig - meat preparation - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling		
Meat from pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling		1
Meat from pig - meat products - cooked, ready-to-eat - at catering - Surveillance - official controls - objective sampling		
Meat from pig - meat products - cooked, ready-to-eat - at hospital or care home - Surveillance - official controls - objective sampling		
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling		
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - objective sampling		
Meat from pig - meat products - cooked, ready-to-eat - at retail - domestic production - Surveillance - official controls - suspect sampling		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from pig - meat products - cooked, ready-to-eat - at retail - imported - Surveillance - official controls - objective sampling		
Meat from pig - meat products - raw but intended to be eaten cooked - at hospital or care home - Surveillance - official controls - objective sampling		
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling		
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		
Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat from pig - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - official controls - objective sampling		
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance - official controls - objective sampling		
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - HACCP and own checks		
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance - official controls - objective sampling		
Meat from sheep - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling		
Meat from sheep - fresh - - meat - Surveillance - official controls - objective sampling		
Meat from sheep - fresh - at cutting plant - Surveillance - official controls - objective sampling		
Meat from sheep - fresh - at processing plant - Surveillance - HACCP and own checks		
Meat from sheep - fresh - at processing plant - Surveillance - official controls - objective sampling		
Meat from sheep - fresh - at retail - Surveillance - official controls - objective sampling		
Meat from sheep - fresh - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from sheep - minced meat - at processing plant - Surveillance - official controls - objective sampling		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat from sheep - minced meat - at retail - domestic production - Surveillance - HACCP and own checks		
Meat from wild game - land mammals - fresh - at catering - Surveillance - official controls - objective sampling		
Meat from wild game - land mammals - fresh - at game handling establishment - Surveillance - official controls - objective sampling		
Meat from wild game - land mammals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling		
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - HACCP and own checks		
Meat, mixed meat - meat products - raw and intended to be eaten raw - at processing plant - domestic production - Surveillance - official controls - objective sampling		
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - HACCP and own checks		
Meat, mixed meat - meat products - raw and intended to be eaten raw - at retail - domestic production - Surveillance - official controls - objective sampling		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - HACCP and own checks		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at catering - Surveillance - official controls - objective sampling		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at hospital or care home - Surveillance - official controls - objective sampling		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - HACCP and own checks		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at packing centre - Surveillance - official controls - objective sampling <sup>1)</sup>		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at processing plant - domestic production - Surveillance - official controls - objective sampling		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - Surveillance - HACCP and own checks		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - domestic production - Surveillance - official controls - objective sampling		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at retail - imported - Surveillance - official controls - objective sampling		

**Table Salmonella in red meat and products thereof**

	S. Virchow	S. enterica subsp. enterica
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - HACCP and own checks		
Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - offal - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling		
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - HACCP and own checks		
Other products of animal origin - gelatin and collagen - at processing plant - domestic production - Surveillance - official controls - objective sampling		

**Comments:**

<sup>1)</sup> samples had been imported

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

**Table Salmonella in other food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified
Bakery products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	1209	0			
Bakery products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	189	0			
Bakery products - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	102	0			
Bakery products - at retail - domestic production - Surveillance - official controls - suspect sampling	SVFSL	batch	25	1	0			
Crustaceans - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0			
Crustaceans - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0			
Crustaceans - unspecified - raw - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0			
Egg products - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	11	0			
Egg products - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0			
Egg products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	16	0			
Egg products - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	31	0			
Egg products - liquid - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	150	0			

**Table Salmonella in other food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Eggs - raw material (liquid egg) for egg products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	20	0			
Eggs - table eggs - - eggs - Surveillance - official controls - objective sampling	SVFSL	batch	25	62	0			
Eggs - table eggs - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	18	0			
Eggs - table eggs - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0			
Eggs - table eggs - at packing centre - Surveillance - HACCP and own checks	SVFSL	batch	25	125	0			
Eggs - table eggs - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	29	0			
Eggs - table eggs - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	54	0			
Fats and oils (excluding butter) - fats - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0			
Fishery products, unspecified - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0			
Fishery products, unspecified - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	53	0			
Fishery products, unspecified - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	258	0			
Fishery products, unspecified - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	378	0			

**Table Salmonella in other food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Fishery products, unspecified - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	187	0			
Fishery products, unspecified - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	162	0			
Fishery products, unspecified - at retail - imported - Surveillance - official controls - suspect sampling	SVFSL	single	25	1	0			
Fruits and vegetables - precut - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	32	0			
Fruits and vegetables - precut - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0			
Fruits and vegetables - precut - ready-to-eat - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	326	0			
Fruits and vegetables - precut - ready-to-eat - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	73	0			
Fruits and vegetables - precut - ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	61	0			
Fruits and vegetables - precut - ready-to-eat - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	480	0			
Fruits and vegetables - precut - ready-to-eat - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	174	0			
Infant formula - dried - intended for infants below 6 months - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	3	0			

**Table Salmonella in other food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified
Juice - fruit juice - unpasteurised - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	73	0			
Juice - fruit juice - unpasteurised - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	40	0			
Juice - vegetable juice - unpasteurised - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0			
Live bivalve molluscs - at retail - Surveillance - HACCP and own checks	SVFSL	batch	25	5	0			
Live echinoderms, tunicates and gastropods - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0			
Live echinoderms, tunicates and gastropods - at processing plant - Surveillance - official controls - selective sampling	SVFSL	single	25	2	0			
Molluscan shellfish - cooked - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	11	0			
Molluscan shellfish - cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0			
Molluscan shellfish - raw - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	7	0			
Molluscan shellfish - raw - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0			
Other food of non-animal origin - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	11	0			

**Table Salmonella in other food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Other processed food products and prepared dishes - unspecified - containing raw egg - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	31	0			
Other processed food products and prepared dishes - unspecified - containing raw egg - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	43	0			
Other processed food products and prepared dishes - unspecified - containing raw egg - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	6	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	440	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	1104	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at catering - Surveillance - official controls - suspect sampling	SVFSL	single	25	1	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	99	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	428	0			

**Table Salmonella in other food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	109	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	963	0			
Seeds, sprouted - non-ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0			
Seeds, sprouted - ready-to-eat - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0			
Spices and herbs - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	12	0			
Spices and herbs - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	355	0			
Spices and herbs - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	1138	0			
Spices and herbs - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	163	0			
Spices and herbs - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	23	0			
Vegetables - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0			
Vegetables - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	19	0			

## Table Salmonella in other food

### **Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories. There are 41 laboratories in 42 counties.

## 2.1.4 **Salmonella in animals**

### **A. *Salmonella* spp. in *Gallus Gallus* - breeding flocks**

**Monitoring system**

**Frequency of the sampling**

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

Every flock is sampled

**Table Salmonella in breeding flocks of *Gallus gallus***

	Number of existing flocks	Source of information	Sampling unit	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Hadar</i>	<i>S. Infantis</i>	<i>S. Typhimurium</i>	<i>S. Virchow</i>	<i>Salmonella</i> spp., unspecified
<b><i>Gallus gallus</i> (fowl) - elite breeding flocks for meat production line - during production period</b>		CSVFSD	animal	35	1					1	

**Footnote:**

CSVFSD: County Sanitary Veterinary and Food Directorate

**Table Salmonella in other poultry**

	Number of existing flocks	Source of information	Sampling unit	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Anatum</i>	<i>S. Bredeney</i>	<i>S. Colindale</i>	<i>S. Djugu</i>	<i>S. Enteritidis</i>	<i>S. Falkensee</i>
<b>Ducks</b>		CSVFSD	animal	12	12						
<b>Gallus gallus (fowl) - broilers</b>		CSVFSD	animal	2001	542	2	1	9	1	192	2
<b>Gallus gallus (fowl) - laying hens</b>		CSVFSD	animal	19	19					10	
	<i>S. Give</i>	<i>S. Heidelberg</i>	<i>S. Infantis</i>	<i>S. Inganda</i>	<i>S. Kambole</i>	<i>S. Kortrijk</i>	<i>S. Livingstone</i>	<i>S. Lomita</i>	<i>S. Mapo</i>	<i>S. Montevideo</i>	<i>S. Norwich</i>
<b>Ducks</b>						5	7				
<b>Gallus gallus (fowl) - broilers</b>	1	1	15	10	4	7	14	8	3	6	2
<b>Gallus gallus (fowl) - laying hens</b>		1	1						1		
	<i>S. Remo</i>	<i>S. Saintpaul</i>	<i>S. Senftenberg</i>	<i>S. Tallahassee</i>	<i>S. Tennessee</i>	<i>S. Typhimurium</i>	<i>S. Virchow</i>	<i>Salmonella</i> spp., unspecified			
<b>Ducks</b>											
<b>Gallus gallus (fowl) - broilers</b>	2	2	25	3	3	7	222				
<b>Gallus gallus (fowl) - laying hens</b>					4	2					

**Footnote:**

CSVFSD: County Sanitary Veterinary and Food Safety Directorate

number of animal: 5 945 911

number of herds: 133

last check positive 750 *Salmonella* spp

these results are performed by CSVFSD , from production

**Table Salmonella in other birds**

	Source of information	Sampling unit	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Fyris</i>	<i>S. Heidelberg</i>	<i>S. Kortrijk</i>	<i>S. Livingstone</i>	<i>S. Typhimurium</i>	<i>S. Gallinarum</i>
<b>Ducks - at farm - Surveillance</b>	CSVFSD	animal	12	12				5	7		
<b>Pheasants</b>	CSVFSD	animal	6	6			1				5
<b>Pigeons</b>	CSVFSD	animal	6	6		1				5	

	Salmonella spp., unspecified
<b>Ducks - at farm - Surveillance</b>	
<b>Pheasants</b>	
<b>Pigeons</b>	

**Footnote:**

CSVFSD: County Sanitary Veterinary and Food Safety Directorate

**Table Salmonella in other animals**

	Source of information	Sampling unit	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Abortusovis</i>	<i>S. Albany</i>	<i>S. Amherstiana</i>	<i>S. Bredeney</i>	<i>S. Choleraesuis</i>	<i>S. Concord</i>	<i>S. Derby</i>
<b>Cattle (bovine animals) - Surveillance</b>	CSVFSD	animal	1482	5		1					
<b>Chinchillas - at farm - Surveillance</b>	CSVFSD	animal	4	4							
<b>Goats - Surveillance</b>	CSVFSD	animal	3	3	3						
<b>Minks - at farm - Surveillance</b>	CSVFSD	animal	2	2							
<b>Pigs - Surveillance</b>	CSVFSD	animal	4006	61			1	3	20	3	1
<b>Sheep - Surveillance</b>	CSVFSD	animal	288	96	96						

	<i>S. Djugu</i>	<i>S. Enteritidis</i>	<i>S. Inganda</i>	<i>S. Kaapstad</i>	<i>S. Kortrijk</i>	<i>S. Kottbus</i>	<i>S. Larochelle</i>	<i>S. Manhattan</i>	<i>S. Saintpaul</i>	<i>S. Taksony</i>	<i>S. Typhimurium</i>
<b>Cattle (bovine animals) - Surveillance</b>		1		1							2
<b>Chinchillas - at farm - Surveillance</b>		3									1
<b>Goats - Surveillance</b>											
<b>Minks - at farm - Surveillance</b>					2						
<b>Pigs - Surveillance</b>	1		1			4	3	2	1	4	11
<b>Sheep - Surveillance</b>											

	<i>S. Virchow</i>	<i>S. Virginia</i>	<i>Salmonella</i> spp., unspecified
<b>Cattle (bovine animals) - Surveillance</b>			
<b>Chinchillas - at farm - Surveillance</b>			

**Table Salmonella in other animals**

	S. Virchow	S. Virginia	Salmonella spp., unspecified
Goats - Surveillance			
Minks - at farm - Surveillance			
Pigs - Surveillance	3	3	
Sheep - Surveillance			

**Footnote:**

CSVFSD : County Sanitary Veterinary and Food Safety Directorate

## 2.1.5 Salmonella in feedingstuffs

**Table Salmonella in feed material of animal origin**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Feed material of land animal origin - meat meal - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	12	0			
Feed material of land animal origin - meat meal - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0			
Feed material of land animal origin - poultry offal meal - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	27	0			
Feed material of marine animal origin - fish meal - at feed mill - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	134	0			
Feed material of marine animal origin - fish meal - at feed mill - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	25	0			
Feed material of marine animal origin - fish meal - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0			
Feed material of marine animal origin - fish meal - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	61	0			
Feed material of marine animal origin - other fish products - at feed mill - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	17	0			

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

**Table Salmonella in other feed matter**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Tennessee</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified
Feed material of cereal grain origin - maize - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	8	0				
Feed material of cereal grain origin - wheat derived - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	1	0				
Feed material of oil seed or fruit origin - other oil seeds derived - at feed mill - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0				
Feed material of oil seed or fruit origin - soya (bean) derived - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	10	0				
Feed material of oil seed or fruit origin - soya (bean) derived - at feed mill - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	16	0				
Feed material of oil seed or fruit origin - sunflower seed derived - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	54	3		3		
Other feed material - forages and roughages - at farm - feed sample - Surveillance - HACCP and own checks	SVFSL	batch	25	1	0				

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

**Table Salmonella in compound feedingstuffs**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Senftenberg</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified
Compound feedingstuffs for cattle - final product - at farm - feed sample - Surveillance - HACCP and own checks	SVFSL	batch	25	6	0				
Compound feedingstuffs for fish - final product - at feed mill - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0				
Compound feedingstuffs for fish - final product - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	11	0				
Compound feedingstuffs for pigs - final product - at farm - feed sample - Surveillance - HACCP and own checks <sup>1)</sup>	SVFSL	batch	25	17	0				
Compound feedingstuffs for pigs - final product - at farm - feed sample - Surveillance - official controls - objective sampling	SVFSL	batch	25	8	0				
Compound feedingstuffs for pigs - final product - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	27	0				
Compound feedingstuffs for pigs - final product - at feed mill - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0				
Compound feedingstuffs for pigs - final product - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0				
Compound feedingstuffs for pigs - process control - at feed mill - Surveillance - HACCP and own checks	SVFSL	batch	25	14	0				
Compound feedingstuffs for poultry (non specified) - final product - at farm - feed sample - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0				

**Table Salmonella in compound feedingstuffs**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Senftenberg</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified
Compound feedingstuffs for poultry (non specified) - final product - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	77	0				
Compound feedingstuffs for poultry (non specified) - final product - at feed mill - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0				
Compound feedingstuffs for poultry (non specified) - final product - at feed mill - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	1	0				
Compound feedingstuffs for poultry - laying hens - final product - at farm - feed sample - Surveillance - HACCP and own checks	SVFSL	batch	25	8	0				
Compound feedingstuffs for poultry - laying hens - final product - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	21	1		1		
Compound feedingstuffs for poultry - laying hens - process control - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0				
Compound feedingstuffs for poultry -breeders - final product - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	15	0				
Compound feedingstuffs for poultry -breeders - process control - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	7	0				
Compound feedingstuffs for poultry - broilers - final product - at farm - feed sample - Surveillance - HACCP and own checks	SVFSL	batch	25	57	0				

**Table Salmonella in compound feedingstuffs**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for <i>Salmonella</i> spp.	<i>S. Enteritidis</i>	<i>S. Senftenberg</i>	<i>S. Typhimurium</i>	<i>Salmonella</i> spp., unspecified
Compound feedingstuffs for poultry - broilers - final product - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	54	1		1		
Compound feedingstuffs for poultry - broilers - final product - at feed mill - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0				
Compound feedingstuffs for poultry - broilers - final product - at feed mill - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	11	0				
Compound feedingstuffs for poultry - broilers - process control - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	42	0				
Compound feedingstuffs for poultry - broilers - process control - at feed mill - domestic production - Surveillance - official controls - selective sampling	SVFSL	batch	25	1	0				
Pet food - dog snacks (pig ears, chewing bones) - at feed mill - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	28	0				
Pet food - final product - canned products - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	4	0				
Pet food - final product - pelleted - at feed mill - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	59	0				
Pet food - final product - pelleted - at packing centre - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0				
Pet food - final product - pelleted - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	41	0				

**Table Salmonella in compound feedingstuffs**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella spp.	S. Enteritidis	S. Senftenberg	S. Typhimurium	Salmonella spp., unspecified
Pet food - final product - pelleted - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	9	0				
Pet food - final product - pelleted - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	75	0				

**Comments:**

<sup>1)</sup> 1 sample was final product imported

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## 2.1.6 **Salmonella** serovars and phagetype distribution

The methods of collecting, isolating and testing of the *Salmonella* isolates are described in the chapters above respectively for each animal species, foodstuffs and humans. The serotype and phagetype distributions can be used to investigate the sources of the *Salmonella* infections in humans. Findings of same serovars and phageotypes 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**

Serovars	Pigeons		Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Other poultry		Ducks - unspecified - hatching eggs		Sheep
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	
Number of isolates in the laboratory	6		5		60		596		0		12		96
Number of isolates serotyped	6	0	5	0	60	0	596	0	0	0	12	0	96
Number of isolates per serovar													
<i>S. Abortusovis</i>													96
<i>S. Albany</i>				1									
<i>S. Amherstiana</i>						1							
<i>S. Amsterdam</i>								2					
<i>S. Anatum</i>								2					
<i>S. Bredeney</i>					2		1						
<i>S. Choleraesuis</i>					20								

**Table Salmonella serovars in animals**

Serovars	Pigeons		Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Other poultry		Ducks - unspecified - hatching eggs		Sheep
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	
Number of isolates in the laboratory	6		5		60		596		0		12		96
Number of isolates serotyped	6	0	5	0	60	0	596	0	0	0	12	0	96
Number of isolates per serovar													
S. Colindale							9						
S. Concord					3								
S. Derby					1								
S. Djugu					1		15						
S. Enteritidis			1				214						
S. Falkensee							2						
S. Fyris	1												
S. Give							2						
S. Heidelberg							6						
S. Infantis							16						
S. Inganda					1		10						
S. Kaapstad			1										

**Table Salmonella serovars in animals**

Serovars	Pigeons		Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Other poultry		Ducks - unspecified - hatching eggs		Sheep
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	
Number of isolates in the laboratory	6		5		60		596		0		12		96
Number of isolates serotyped	6	0	5	0	60	0	596	0	0	0	12	0	96
Number of isolates per serovar													
S. Kambole							4						
S. Kortrijk							7				5		
S. Kottbus					4								
S. Larochelle					3								
S. Livingstone							14				7		
S. Lomita							9						
S. Manhattan					2								
S. Mapo							3						
S. Montevideo							7						
S. Nigeria							1						
S. Norwich							2						
S. Remo							2						

**Table Salmonella serovars in animals**

Serovars	Pigeons		Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Other poultry		Ducks - unspecified - hatching eggs		Sheep
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	
Number of isolates in the laboratory	6		5		60		596		0		12		96
Number of isolates serotyped	6	0	5	0	60	0	596	0	0	0	12	0	96
Number of isolates per serovar													
S. Saintpaul					1		2						
S. Senftenberg							25						
S. Taksony					4								
S. Tallahassee							3						
S. Tennessee							7						
S. Typhimurium	5		2		11		9						
S. Virchow					3		222						
S. Virginia					3								
S. Gallinarum													

**Table Salmonella serovars in animals**

Serovars	Sheep	Goats		Chinchillas		Minks		Pheasants	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory		3		4		2		6	
Number of isolates serotyped	0	3	0	4	0	2	0	6	0
Number of isolates per serovar									
<i>S. Abortusovis</i>		3							
<i>S. Albany</i>									
<i>S. Amherstiana</i>									
<i>S. Amsterdam</i>									
<i>S. Anatum</i>									
<i>S. Bredeney</i>									
<i>S. Choleraesuis</i>									
<i>S. Colindale</i>									
<i>S. Concord</i>									
<i>S. Derby</i>									
<i>S. Djugu</i>									
<i>S. Enteritidis</i>				3					

**Table Salmonella serovars in animals**

Serovars	Sheep	Goats		Chinchillas		Minks		Pheasants	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory		3		4		2		6	
Number of isolates serotyped	0	3	0	4	0	2	0	6	0
Number of isolates per serovar									
S. Falkensee									
S. Fyris									
S. Give									
S. Heidelberg								1	
S. Infantis									
S. Inganda									
S. Kaapstad									
S. Kambole									
S. Kortrijk						2			
S. Kottbus									
S. Larochelle									
S. Livingstone									

**Table Salmonella serovars in animals**

Serovars	Sheep	Goats		Chinchillas		Minks		Pheasants	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory		3		4		2		6	
Number of isolates serotyped	0	3	0	4	0	2	0	6	0
Number of isolates per serovar									
S. Lomita									
S. Manhattan									
S. Mapo									
S. Montevideo									
S. Nigeria									
S. Norwich									
S. Remo									
S. Saintpaul									
S. Senftenberg									
S. Taksony									
S. Tallahassee									
S. Tennessee									

**Table Salmonella serovars in animals**

Serovars	Sheep	Goats		Chinchillas		Minks		Pheasants	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory		3		4		2		6	
Number of isolates serotyped	0	3	0	4	0	2	0	6	0
Number of isolates per serovar									
<i>S. Typhimurium</i>				1					
<i>S. Virchow</i>									
<i>S. Virginia</i>									
<i>S. Gallinarum</i>								5	

Table Salmonella serovars in food

Serovars	Meat from broilers (Gallus gallus) - carcass - chilled - - neck skin - Survey - EU baseline survey	Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	Meat from broilers (Gallus gallus) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling	Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
Sources of isolates	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Monitoring	
Number of isolates in the laboratory	22		1		1		4		3		2		3
Number of isolates serotyped	22	0	1	0	1	0	4	0	3	0	2	0	3
Number of isolates per serovar													
S. Agona							1						
S. Bovismorbificans													
S. Bredeney	4												
S. Bsilla													
S. Chester							1						
S. Colindale									2				
S. Derby													

Table Salmonella serovars in food

Serovars	Meat from broilers (Gallus gallus) - carcass - chilled - - neck skin - Survey - EU baseline survey		Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	
	Sources of isolates		Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory	22		1		1		4		3		2			3
Number of isolates serotyped	22	0	1	0	1	0	4	0	3	0	2	0		3
Number of isolates per serovar														
S. Enteritidis	2								1		2			
S. Essen														
S. Give							2							
S. Hadar	1													
S. Infantis														
S. Isangi														
S. Kedougou														2

Table Salmonella serovars in food

Serovars	Meat from broilers (Gallus gallus) - carcass - chilled - - neck skin - Survey - EU baseline survey		Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling		
	Sources of isolates		Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory		22			1		1		4		3		2		3
Number of isolates serotyped		22	0	1	0	1	0	4	0	3	0	2	0	3	
Number of isolates per serovar															
S. Kivu															
S. Koessen															
S. Kortrijk															
S. Kottbus															
S. Kristianstad															
S. Lexington		1													
S. Litchfield															

Table Salmonella serovars in food

Serovars	Meat from broilers (Gallus gallus) - carcass - chilled - - neck skin - Survey - EU baseline survey		Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	
	Sources of isolates		Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory	22		1		1		4		3		2		3	
Number of isolates serotyped	22	0	1	0	1	0	4	0	3	0	2	0	3	
Number of isolates per serovar														
S. Livingstone														
S. London														
S. Mapo														
S. Montevideo														
S. Muenchen														1
S. Rissen														
S. Ruzizi														

Table Salmonella serovars in food

Serovars	Meat from broilers (Gallus gallus) - carcass - chilled - - neck skin - Survey - EU baseline survey		Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling		Meat from broilers (Gallus gallus) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling				
	Sources of isolates		Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring		
Number of isolates in the laboratory	22			1			1			4			3		2		3
Number of isolates serotyped	22	0		1	0		1	0		4	0		3	0	2	0	3
Number of isolates per serovar																	
S. Saintpaul																	
S. Sandiego																	
S. Senftenberg																	
S. Tennessee																	
S. Typhimurium	1																
S. Virchow	13																
S. enterica subsp. enterica				1			1										

Table Salmonella serovars in food

Serovars	Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling		Meat from bovine animals		Meat from pig		Meat from broilers ( <i>Gallus gallus</i> )		Other poultry		Other products of animal origin	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory			1		10		43		22		1		
Number of isolates serotyped	0	1	0	10	0	43	0	22	0	1	0	0	0
Number of isolates per serovar													
S. Agona						3							
S. Bovismorbificans					4								
S. Bredeney							3						
S. Bsilla													
S. Chester													
S. Colindale									3				
S. Derby							1						

Table Salmonella serovars in food

Serovars	Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling		Meat from bovine animals		Meat from pig		Meat from broilers ( <i>Gallus gallus</i> )		Other poultry		Other products of animal origin	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory		1		10		43		22		1			
Number of isolates serotyped	0	1	0	10	0	43	0	22	0	1	0	0	0
Number of isolates per serovar													
S. Enteritidis		1						9					
S. Essen							1						
S. Give				1		3							
S. Hadar													
S. Infantis								1					
S. Isangi							1						
S. Kedougou													

Table Salmonella serovars in food

Serovars	Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling		Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory			1		10		43		22		1		
Number of isolates serotyped	0	1	0	10	0	43	0	22	0	1	0	0	0
Number of isolates per serovar													
S. Kivu													
S. Koessen									1				
S. Kortrijk													
S. Kottbus							1						
S. Kristianstad					1								
S. Lexington													
S. Litchfield													

Table Salmonella serovars in food

Serovars	Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling		Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory			1		10		43		22		1		
Number of isolates serotyped	0	1	0	10	0	43	0	22	0	1	0	0	0
Number of isolates per serovar													
S. Livingstone				3		5							
S. London													
S. Mapo								1					
S. Montevideo							2						
S. Muenchen													
S. Rissen							1						
S. Ruzizi				1									

Table Salmonella serovars in food

Serovars	Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling		Meat from bovine animals		Meat from pig		Meat from broilers ( <i>Gallus gallus</i> )		Other poultry		Other products of animal origin	
		Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory			1		10		43		22		1		
Number of isolates serotyped	0	1	0	10	0	43	0	22	0	1	0	0	0
Number of isolates per serovar													
S. Saintpaul						1		2					
S. Sandiego													
S. Senftenberg													
S. Tennessee						1							
S. Typhimurium						20				1			
S. Virchow								5					
S. enterica subsp. enterica													

Table Salmonella serovars in food

Serovars	Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks	Meat from sheep - fresh - chilled - - meat - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillanc e - HACCP and own checks						
Sources of isolates	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory	1		1		25		15		15		1		10
Number of isolates serotyped	1	0	1	0	25	0	15	0	15	0	1	0	10
Number of isolates per serovar													
<i>S. Agona</i>							5						1
<i>S. Bovismorbificans</i>													
<i>S. Bredeney</i>					4		5		2		1		
<i>S. Bsilla</i>					1								
<i>S. Chester</i>							1						
<i>S. Colindale</i>													1
<i>S. Derby</i>					1								

Table Salmonella serovars in food

Serovars	Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks	Meat from sheep - fresh - chilled - - meat - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillanc e - HACCP and own checks						
Sources of isolates	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory	1		1		25		15		15		1		10
Number of isolates serotyped	1	0	1	0	25	0	15	0	15	0	1	0	10
Number of isolates per serovar													
<i>S. Enteritidis</i>													
<i>S. Essen</i>													1
<i>S. Give</i>													
<i>S. Hadar</i>													
<i>S. Infantis</i>													2
<i>S. Isangi</i>													
<i>S. Kedougou</i>													

Table Salmonella serovars in food

Serovars	Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks	Meat from sheep - fresh - chilled - - meat - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillanc e - HACCP and own checks						
Sources of isolates	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory	1		1		25		15		15		1		10
Number of isolates serotyped	1	0	1	0	25	0	15	0	15	0	1	0	10
Number of isolates per serovar													
S. Kivu			1										
S. Koessen													
S. Kortrijk													2
S. Kottbus													
S. Kristianstad													
S. Lexington													
S. Litchfield					1								

Table Salmonella serovars in food

Serovars	Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks	Meat from sheep - fresh - chilled - - meat - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillanc e - HACCP and own checks						
Sources of isolates	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory	1		1		25		15		15		1		10
Number of isolates serotyped	1	0	1	0	25	0	15	0	15	0	1	0	10
Number of isolates per serovar													
<i>S. Livingstone</i>													3
<i>S. London</i>													
<i>S. Mapo</i>													
<i>S. Montevideo</i>													
<i>S. Muenchen</i>					4								
<i>S. Rissen</i>							2						
<i>S. Ruzizi</i>													

Table Salmonella serovars in food

Serovars	Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks	Meat from sheep - fresh - chilled - - meat - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillanc e - HACCP and own checks						
Sources of isolates	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory	1		1		25		15		15		1		10
Number of isolates serotyped	1	0	1	0	25	0	15	0	15	0	1	0	10
Number of isolates per serovar													
<i>S. Saintpaul</i>					5								
<i>S. Sandiego</i>													
<i>S. Senftenberg</i>	1												
<i>S. Tennessee</i>													
<i>S. Typhimurium</i>					9		2		13				
<i>S. Virchow</i>													
<i>S. enterica</i> subsp. <i>enterica</i>													

Table Salmonella serovars in food

Serovars	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
Sources of isolates	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory		3		3		4		13		2		1	
Number of isolates serotyped	0	3	0	3	0	4	0	13	0	2	0	1	0
Number of isolates per serovar													
S. Agona						1							
S. Bovismorbificans								3					
S. Bredeney													
S. Bsilla													
S. Chester													
S. Colindale													
S. Derby													

Table Salmonella serovars in food

Serovars	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
Sources of isolates	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory		3		3		4		13		2		1	
Number of isolates serotyped	0	3	0	3	0	4	0	13	0	2	0	1	0
Number of isolates per serovar													
S. Enteritidis										1			
S. Essen													
S. Give										1			
S. Hadar													
S. Infantis											1		
S. Isangi													
S. Kedougou													

Table Salmonella serovars in food

Serovars	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
Sources of isolates	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory		3		3		4		13		2		1	
Number of isolates serotyped	0	3	0	3	0	4	0	13	0	2	0	1	0
Number of isolates per serovar													
S. Kivu													
S. Koessen													
S. Kortrijk		2											
S. Kottbus													
S. Kristianstad													
S. Lexington													
S. Litchfield													

Table Salmonella serovars in food

Serovars	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
Sources of isolates	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory		3		3		4		13		2		1	
Number of isolates serotyped	0	3	0	3	0	4	0	13	0	2	0	1	0
Number of isolates per serovar													
S. Livingstone		1						5					
S. London							1						
S. Mapo													
S. Montevideo													
S. Muenchen													
S. Rissen													
S. Ruzizi							1						

Table Salmonella serovars in food

Serovars	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
Sources of isolates	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory		3		3		4		13		2		1	
Number of isolates serotyped	0	3	0	3	0	4	0	13	0	2	0	1	0
Number of isolates per serovar													
S. Saintpaul													
S. Sandiego				1									
S. Senftenberg													
S. Tennessee													
S. Typhimurium													
S. Virchow				2		1		5					
S. enterica subsp. enterica													

**Table Salmonella serovars in feed**

Serovars	Feed material of oil seed or fruit origin - sunflower seed derived - at feed mill - domestic production - Surveillance - HACCP and own checks		Compound feedingstuffs for poultry - laying hens - final product - at feed mill - domestic production - Surveillance - HACCP and own checks		Compound feedingstuffs for poultry - broilers - final product - at feed mill - domestic production - Surveillance - HACCP and own checks	
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory	3		1		1	
Number of isolates serotyped	3	0	1	0	1	0
Number of isolates per serovar						
S. Senftenberg			1		1	
S. Tennessee	3					

**Table Salmonella Enteritidis phagetypes in food**

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	
Number of isolates in the laboratory					14						1		1
Number of isolates phagetyped	0	0	0	0	2	0	0	0	0	0	0	0	0
Number of isolates per type													
4					2								

**Table Salmonella Enteritidis phageotypes in food**

Phagetype	Dairy products (excluding cheeses) - ice-cream - at catering	Clinical
	Surveillance - official controls - objective sampling	
Sources of isolates		
Number of isolates in the laboratory		
Number of isolates phagetyped	0	
Number of isolates per type		
4		

**Table Salmonella Typhimurium phageotypes in animals**

Phagetype	Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Other poultry		Chinchillas		Pigeons	
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical
Number of isolates in the laboratory	2		11		9				1		5	
Number of isolates phagetyped	2	0	11	0	9	0	0	0	1	0	5	0
Number of isolates per type												
DT 120			5		1							
DT 193			2								1	
Not typeable	1		4		5				1			
DT 99	1				2						1	
DT 1					1							
DT 2											3	

Table Salmonella Typhimurium phagetypes in food

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling
	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	
Number of isolates in the laboratory			20		1		1				13		9
Number of isolates phagetyped	0	0	18	0	1	0	0	0	0	0	11	0	7
Number of isolates per type													
DT 104			1								1		3
DT 120			3								1		
DT 208			10										1
U 302			2										2
Not typeable													
DT 17													1

Table Salmonella Typhimurium phagetypes in food

Phagetype	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Other poultry		Other products of animal origin		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling
Sources of isolates	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring	Clinical	Monitoring
Number of isolates in the laboratory			20		1		1				13		9
Number of isolates phagetyped	0	0	18	0	1	0	0	0	0	0	11	0	7
Number of isolates per type													
193			2		1						9		

**Table Salmonella Typhimurium phageotypes in food**

Phagetype	Meat from bovine animals and pig - meat preparation	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	
	n - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		
Sources of isolates	Clinical	Monitoring	Clinical
Number of isolates in the laboratory		2	
Number of isolates phagetyped	0	2	0
Number of isolates per type			
DT 104			
DT 120		2	
DT 208			
U 302			
Not typeable			
DT 17			

**Table Salmonella Typhimurium phagetypes in food**

Phagetype	Meat from bovine animals and pig - meat preparation	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	
	n - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		
Sources of isolates	Clinical	Monitoring	Clinical
Number of isolates in the laboratory		2	
Number of isolates phagetyped	0	2	0
Number of isolates per type			
193			

## 2.1.7 Antimicrobial resistance in *Salmonella* isolates

### **A. Antimicrobial resistance in *Salmonella* in foodstuff derived from cattle**

#### **Sampling strategy used in monitoring**

##### **Frequency of the sampling**

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

According to the provisions of the Order of President on National Sanitary Veterinary and Food Safety Authority no.34/2006, transposing into Romanian legislation the Directive 2003/99/EC, all the *Salmonella* spp. strains isolated in foodstuffs derived from products of animal origin were compulsory tested for the antimicrobial resistance.

##### **Methods used for collecting data**

Isolates were collected from regional laboratories (SVFSL) at Institute of Hygiene and Veterinary Public Health and serotyped at Cantacuzino C. Institute. Resistance data is done in Institute of Hygiene and Veterinary Public Health.

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

Bacteriological method: SR EN ISO 6579/2003 AC:2006

##### **Laboratory used for detection for resistance**

##### **Antimicrobials included in monitoring**

The method used is disc diffusion; testing were performed according to NCCLS document and quality control according to the NCCLS standards.

Antimicrobials used were: gentamicin, kanamycin, streptomycin, chloramphenicol, cefotaxim, ceftazidim, ciprofloxacin, enrofloxacin, ampicillin, nalidixic acid, sulfonamide, tetracyclin, trimethoprim, trimethoprim + sulfonamides.

##### **Breakpoints used in testing**

The breakpoints used are those listed in NCCLS.

##### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated which is according with the provisions of Order of the President of the National Sanitary Veterinary and Food Safety Authority no 34/2006, in order to observe the antimicrobial resistance.

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

A positive laboratory finding of *Salmonella* spp is followed by a notification by

RASFF to all levels (central, regional and local). Then the all food chain is controlled in order to identify the origin of the contamination, if it is possible. The contaminated products are traced back and detent under restrictions, till the results of salmonella serotyping come, and depending of the type of the Salmonella we apply different measures ( general measures : effective cleaning and desinfection of the premises and equipment are carried out and monitoring too).

### **Notification system in place**

Laboratory has to notify the positive result to the regional and central authority and the regional authority notify the food business operator.

### **Results of the investigation**

There were tested 13 strains of Salmonella for antimicrobial resistance.

## **B. Antimicrobial resistance in *Salmonella* in foodstuff derived from pigs**

### **Sampling strategy used in monitoring**

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

According to the provisions of the Order of President on National Sanitary Veterinary and Food Safety Authority no.34/2006, transposing into Romanian legislation the Directive 2003/99/EC, all the *Salmonella* spp. strains isolated in foodstuffs derived from products of animal origin were compulsory tested for the antimicrobial resistance.

#### **Methods used for collecting data**

Isolates were collected from regional laboratories (SVFSL) at Institute of Hygiene and Veterinary Public Health and serotyped at Cantacuzino C. Institute. Resistance data is done in Institute of Hygiene and Veterinary Public Health.

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

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **Laboratory used for detection for resistance**

#### **Antimicrobials included in monitoring**

The method used is disc diffusion; testing were performed according to NCCLS document and quality control according to the NCCLS standards.

Antimicrobials used were: gentamicin, kanamycin, streptomycin, chloramphenicol, cefotaxim, ceftazidim, ciprofloxacin, enrofloxacin, ampicillin, nalidixic acid, sulfonamide, tetracyclin, trimethoprim, trimethoprim + sulfonamides.

#### **Breakpoints used in testing**

The breakpoints used are those listed in NCCLS.

#### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated which is according with the provisions of Order of the President of the National Sanitary Veterinary and Food Safety Authority no 34/2006, in order to observe the antimicrobial resistance.

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

A positive laboratory finding of *Salmonella* spp is followed by a notification by RASFF to all levels (central, regional and local). Then the all food chain is controlled in order to identify the origin of the contamination, if it is possible. The contaminated products are traced back and detent under restrictions, till the results of *Salmonella* serotyping come, and depending of the type of the *Salmonella* the Competent Authority applies different measures (specific and general measures: effective cleaning and disinfection of the premises and equipment are carried out and monitoring too).

### **Notification system in place**

Laboratory has to notify the positive result to the regional and central authority and the regional authority notify the food business operator.

### **Results of the investigation**

There were 72 strains of *Salmonella* tested for antimicrobial resistance.

## **C. Antimicrobial resistance in *Salmonella* in foodstuff derived from poultry**

### **Sampling strategy used in monitoring**

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

According to the provisions of the Order of President on National Sanitary Veterinary and Food Safety Authority no.34/2006, transposing into Romanian legislation the Directive 2003/99/EC, all the *Salmonella* spp. strains isolated in foodstuffs derived from products of animal origin were compulsory tested for the antimicrobial resistance.

#### **Methods used for collecting data**

Isolates were collected from regional laboratories (SVFSL) at Institute of Hygiene and Veterinary Public Health and serotyped at Cantacuzino C. Institute. Resistance data is done in Institute of Hygiene and Veterinary Public Health.

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

Bacteriological method: SR EN ISO 6579/2003 AC:2006

#### **Laboratory used for detection for resistance**

#### **Antimicrobials included in monitoring**

The method used is disc diffusion; testing were performed according to NCCLS document and quality control according to the NCCLS standards.

Antimicrobials used were: gentamicin, kanamycin, streptomycin, chloramphenicol, cefotaxim, ceftazidim, ciprofloxacin, enrofloxacin, ampicillin, nalidixic acid, sulfonamide, tetracyclin, trimethoprim, trimethoprim + sulfonamides.

#### **Breakpoints used in testing**

The breakpoints used are those listed in NCCLS.

#### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated which is according with the provisions of Order of the President of the National Sanitary Veterinary and Food Safety Authority no 34/2006, in order to observe the antimicrobial resistance.

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

A positive laboratory finding of *Salmonella* spp is followed by a notification by RASFF to all levels (central, regional and local). Then the all food chain is controlled in order to identify the origin of the contamination, if it is possible. The contaminated products are traced back and detent under restrictions, till the results of salmonella serotyping come, and depending of the type of the *Salmonella* we apply different measures ( general measures : effective cleaning and disinfection of the premises and equipment are carried out and monitoring too).

### **Notification system in place**

Laboratory has to notify the positive result to the regional and central authority and the regional authority notify the food business operator.

### **Results of the investigation**

There were tested 29 strains of *Salmonella* for antimicrobial resistance.

**Table Antimicrobial susceptibility testing of *S. Agona* in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Agona		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	3	0									1		1		1											
	Kanamycin	13	3	0											1	1		1										
	Neomycin		0	0																								
	Streptomycin	11	3	2					1	1	1																	
Amphenicols	Chloramphenicol	12	3	0											1		1							1				
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	3	0																1			1		1			
	Ceftazidim	14	3	1		1									1			1										
Fluoroquinolones	Ciprofloxacin	15	3	0																								1
	Enrofloxacin	16	3	0																					1	1		
Penicillins	Ampicillin	13	3	0											1		1						1					
Quinolones	Nalidixic acid	13	3	0															2			1						
Sulfonamides	Sulfonamide	12	3	1		1										1	1											
Tetracyclines	Tetracyclin	14	3	2	1					1							1											
Trimethoprim	Trimethoprim	10	3	0															2	1								
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	3	0													1		2									

**Table Antimicrobial susceptibility testing of *S. Agona* in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Agona</b>		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		3						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		1	1				
	Enrofloxacin	1						
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Agona* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Agona		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks																											
		yes																											
		1																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	1	0											1														
	Kanamycin	13	1	0												1													
	Neomycin		0	0																									
	Streptomycin	11	1	1						1																			
Amphenicols	Chloramphenicol	12	1	0																								1	
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	1	0																									
	Ceftazidim	14	1	0																								1	
Fluoroquinolones	Ciprofloxacin	15	1	0																									
	Enrofloxacin	16	1	0																									
Penicillins	Ampicillin	13	1	0																								1	
Quinolones	Nalidixic acid	13	1	0																								1	
Sulfonamides	Sulfonamide	12	1	0																								1	
Tetracyclines	Tetracyclin	14	1	1	1																								
Trimethoprim	Trimethoprim	10	1	0																								1	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1	

**Table Antimicrobial susceptibility testing of S. Agona in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Agona</b>		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim		1					
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		1					
	Enrofloxacin	1						
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Agona* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Agona		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0																								
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
Amphenicols	Chloramphenicol	12	1	1																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0																								
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								
Penicillins	Ampicillin	13	1	1	1																							
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	0																								
Tetracyclines	Tetracyclin	14	1	1																								
Trimethoprim	Trimethoprim	10	1	0																								
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								

**Table Antimicrobial susceptibility testing of *S. Agona* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Agona</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin			1				
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide	1						
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Agona* in intended to be eaten cooked - minced meat - Meat from pig - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Agona		Meat from pig - minced meat - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0								1																
	Kanamycin	13	1	0														1										
	Neomycin		0	0																								
	Streptomycin	11	1	1				1																				
Amphenicols	Chloramphenicol	12	1	0																								1
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								1
	Ceftazidim	14	1	1								1																
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								
Penicillins	Ampicillin	13	1	0														1										
Quinolones	Nalidixic acid	13	1	0																	1							
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	1				1																				
Trimethoprim	Trimethoprim	10	1	0																	1							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								

**Table Antimicrobial susceptibility testing of *S. Agona* in intended to be eaten cooked - minced meat - Meat from pig - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Agona</b>		Meat from pig - minced meat - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin	1						
	Enrofloxacin							1
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Agona* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Agona		Meat from pig - carcass - chilled - carcass swabs - Surveillance - official controls - objective sampling																													
		yes																													
		5																													
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Aminoglycosides	Gentamicin	12	5	4							4		1																		
	Kanamycin	13	5	5	1					1	2	1																			
	Neomycin		0	0																											
	Streptomycin	11	5	5	1		1			3																					
Amphenicols	Chloramphenicol	12	5	0															1		1	1	1	1							
	Florfenicol		0	0																											
Cephalosporins	3rd generation cephalosporins		0	0																											
	Cefotaxim	14	5	0															1		2	1						1			
	Ceftazidim	14	5	0															1		1	1	1				1				
Fluoroquinolones	Ciprofloxacin	15	5	0																1	1	1	1	1	1						
	Enrofloxacin	16	5	0																2		1	1	1							
Penicillins	Ampicillin	13	5	1	1															1	2	1									
Quinolones	Nalidixic acid	13	5	0															1	3	1										
Sulfonamides	Sulfonamide	12	5	2	2													1		2											
Tetracyclines	Tetracyclin	14	5	5	5																										
Trimethoprim	Trimethoprim	10	5	2			1		1	1	1						1														
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	5	0														1		2		2									

**Table Antimicrobial susceptibility testing of *S. Agona* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Agona</b>		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		5						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin							
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of *S. Bovismorbificans* in fresh - Meat from bovine animals - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Bovismorbificans		Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling																												
		yes																												
		4																												
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			
Aminoglycosides	Gentamicin	12	4	1						1		1	1					1												
	Kanamycin	13	4	1							1			2			1													
	Neomycin		0	0																										
	Streptomycin	11	4	1						1	1		1							1										
Amphenicols	Chloramphenicol	12	4	0														1	1						1	1				
	Florfenicol		0	0																										
Cephalosporins	3rd generation cephalosporins		0	0																										
	Cefotaxim	14	4	0														1	2								1			
	Ceftazidim	14	4	4						2	1	1																		
Fluoroquinolones	Ciprofloxacin	15	4	0																					1		2	1		
	Enrofloxacin	16	4	0																					2	1	1			
Penicillins	Ampicillin	13	4	0													1	2		1										
Quinolones	Nalidixic acid	13	4	0															2	1	1									
Sulfonamides	Sulfonamide	12	4	1	1										1	1									1					
Tetracyclines	Tetracyclin	14	4	0													1	1	1							1				
Trimethoprim	Trimethoprim	10	4	0															1	2	1									
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	4	0																2	1	1								

**Table Antimicrobial susceptibility testing of *S. Bovismorbificans* in fresh - Meat from bovine animals - chilled - at cutting plant - domestic production  
- Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bovismorbificans</b>		Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		4						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Bovismorbificans* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bovismorbificans</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
Number of isolates available in the laboratory		yes																										
		3																										
<b>Antimicrobials:</b>		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	3	1							1	1	1															
	Kanamycin	13	3	1							1		1		1													
	Neomycin		0	0																								
	Streptomycin	11	3	2	1					1	1																	
Amphenicols	Chloramphenicol	12	3	0																	1	1	1					
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	3	0																							2	
	Ceftazidim	14	3	1							1			1												1		
Fluoroquinolones	Ciprofloxacin	15	3	0																			1					
	Enrofloxacin	16	3	0																						1		
Penicillins	Ampicillin	13	3	1	1																		1	1				
Quinolones	Nalidixic acid	13	3	1	1														1			1						
Sulfonamides	Sulfonamide	12	3	1	1														1		1							
Tetracyclines	Tetracyclin	14	3	2	1											1	1											
Trimethoprim	Trimethoprim	10	3	1	1																	2						
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	3	1	1																2							

**Table Antimicrobial susceptibility testing of *S. Bovismorbificans* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bovismorbificans</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim		1					
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		2					
	Enrofloxacin		2					
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Bredeney* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Bredeney		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																											
		Isolates out of a monitoring program (yes/no)																											
		Number of isolates available in the laboratory																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	4	1	1								3																
	Kanamycin	13	4	4					2			2																	
	Neomycin		0	0																									
	Streptomycin	11	4	4	1				1	2																			
Amphenicols	Chloramphenicol	12	4	0														1	1	1		1							
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	4	0													1	1	2										
	Ceftazidim	14	4	2								2	1		1														
Fluoroquinolones	Ciprofloxacin	15	4	1	1																	1	1						
	Enrofloxacin	16	4	0														1		1		1		1					
Penicillins	Ampicillin	13	4	0								2		1	1														
Quinolones	Nalidixic acid	13	4	0									1	1	1		1												
Sulfonamides	Sulfonamide	12	4	2	2							1	1																
Tetracyclines	Tetracyclin	14	4	3								3						1											
Trimethoprim	Trimethoprim	10	4	0								1						1		2									
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	4	0											1			2	1										

**Table Antimicrobial susceptibility testing of *S. Bredeney* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bredeney</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		4						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin		1					
	Enrofloxacin			1				
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of *S. Bredeney* in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Bredeney		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling																											
		yes																											
		3																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	3	1							1	1	1																
	Kanamycin	13	3	0														2	1										
	Neomycin		0	0																									
	Streptomycin	11	3	1						1	1	1																	
Amphenicols	Chloramphenicol	12	3	0																1	1		1						
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	3	0																		2		1					
	Ceftazidim	14	3	1						1										1	1								
Fluoroquinolones	Ciprofloxacin	15	3	0																					1		2		
	Enrofloxacin	16	3	0														1						1	1				
Penicillins	Ampicillin	13	3	0													1		1	1									
Quinolones	Nalidixic acid	13	3	0														2		1									
Sulfonamides	Sulfonamide	12	3	1	1															1	1								
Tetracyclines	Tetracyclin	14	3	0													1	1		1									
Trimethoprim	Trimethoprim	10	3	0																2		1							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	3	0															1			2							

**Table Antimicrobial susceptibility testing of *S. Bredeney* in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bredeney</b>		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		3						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Bredeney* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Bredeney		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	2	1	1								1															
	Kanamycin	13	2	1							1		1															
	Neomycin		0	0																								
	Streptomycin	11	2	2					1	1																		
Amphenicols	Chloramphenicol	12	2	0																	1		1					
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	2	0															1	1								
	Ceftazidim	14	2	1								1			1													
Fluoroquinolones	Ciprofloxacin	15	2	0																				1				
	Enrofloxacin	16	2	0																				1				
Penicillins	Ampicillin	13	2	0													1		1									
Quinolones	Nalidixic acid	13	2	0														1		1								
Sulfonamides	Sulfonamide	12	2	0											1	1												
Tetracyclines	Tetracyclin	14	2	1									1						1									
Trimethoprim	Trimethoprim	10	2	0									1									1						
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0																1	1							

**Table Antimicrobial susceptibility testing of *S. Bredeney* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bredeney</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		1					
	Enrofloxacin			1				
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Bredeney* in offal - Meat from pig - liver - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Bredeney		Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0											1													
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	1	1																							
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								1
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0																							1	
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	1			1																					
Penicillins	Ampicillin	13	1	0																				1				
Quinolones	Nalidixic acid	13	1	0																				1				
Sulfonamides	Sulfonamide	12	1	0																				1				
Tetracyclines	Tetracyclin	14	1	0																				1				
Trimethoprim	Trimethoprim	10	1	0																					1			
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																					1			

**Table Antimicrobial susceptibility testing of *S. Bredeney* in offal - Meat from pig - liver - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bredeney</b>		Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		1					
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Bredeney* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Bredeney		Meat from pig - carcass - chilled - carcass swabs - Surveillance - official controls - objective sampling																										
		yes																										
		5																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	5	0									2	3														
	Kanamycin	13	5	0									1	2	1	1												
	Neomycin		0	0																								
	Streptomycin	11	5	0								4		1														
Amphenicols	Chloramphenicol	12	5	0											1					1	3							
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	5	0																				1		1	1	2
	Ceftazidim	14	5	3						1	2								1					1				
Fluoroquinolones	Ciprofloxacin	15	5	0																							2	1
	Enrofloxacin	16	5	0																	1				1	2		
Penicillins	Ampicillin	13	5	0											1	2	2											
Quinolones	Nalidixic acid	13	5	0														1	2	1	1							
Sulfonamides	Sulfonamide	12	5	0										2	2	1												
Tetracyclines	Tetracyclin	14	5	0														1		4								
Trimethoprim	Trimethoprim	10	5	0																	2	1	1	1				
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	5	0															1	1	1	1						

**Table Antimicrobial susceptibility testing of *S. Bredeney* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bredeney</b>		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		5						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin	1	1					
	Enrofloxacin				1			
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Bsilla* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Bsilla		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																											
		Isolates out of a monitoring program (yes/no)																											
		Number of isolates available in the laboratory																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	1	0											1														
	Kanamycin	13	1	0																									
	Neomycin		0	0																									
	Streptomycin	11	1	1										1															
Amphenicols	Chloramphenicol	12	1	0																								1	
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	1	0																								1	
	Ceftazidim	14	1	1										1															
Fluoroquinolones	Ciprofloxacin	15	1	0																									1
	Enrofloxacin	16	1	0																									1
Penicillins	Ampicillin	13	1	0																									
Quinolones	Nalidixic acid	13	1	0																								1	
Sulfonamides	Sulfonamide	12	1	1	1																								
Tetracyclines	Tetracyclin	14	1	0																									1
Trimethoprim	Trimethoprim	10	1	0																								1	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1	

**Table Antimicrobial susceptibility testing of *S. Bsilla* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Bsilla</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
		1						
Antimicrobials:		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Chester in intended to be eaten cooked - minced meat - Meat from pig - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Chester		Meat from pig - minced meat - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	1							1																	
	Kanamycin	13	1	1							1																	
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
Amphenicols	Chloramphenicol	12	1	0																						1		
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																1								
	Ceftazidim	14	1	0																						1		
Fluoroquinolones	Ciprofloxacin	15	1	0																						1		
	Enrofloxacin	16	1	0																					1			
Penicillins	Ampicillin	13	1	0															1									
Quinolones	Nalidixic acid	13	1	0																1								
Sulfonamides	Sulfonamide	12	1	1							1																	
Tetracyclines	Tetracyclin	14	1	0																					1			
Trimethoprim	Trimethoprim	10	1	0													1											
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																1								

**Table Antimicrobial susceptibility testing of *S. Chester* in intended to be eaten cooked - minced meat - Meat from pig - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Chester</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory		Meat from pig - minced meat - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Chester in Meat from pig - carcass - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Chester		Meat from pig - carcass - carcass swabs - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0													1											
	Kanamycin	13	1	0														1										
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	1			1																					
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																					1			
	Ceftazidim	14	1	1												1												
Fluoroquinolones	Ciprofloxacin	15	1	0																							1	
	Enrofloxacin	16	1	0																					1			
Penicillins	Ampicillin	13	1	1			1																					
Quinolones	Nalidixic acid	13	1	0																					1			
Sulfonamides	Sulfonamide	12	1	1			1																					
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	0														1										
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																						1		

**Table Antimicrobial susceptibility testing of *S. Chester* in Meat from pig - carcass - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Chester</b>		Meat from pig - carcass - - carcass swabs - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Colindale* in fresh - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Colindale		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - chilled - meat - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	3	0								1	1	1														
	Kanamycin	13	3	2			1					1		1														
	Neomycin		0	0																								
	Streptomycin	11	3	3			3																					
Amphenicols	Chloramphenicol	12	3	1							1				2													
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	3	0														1	1			1						
	Ceftazidim	14	3	0														1		1		1						
Fluoroquinolones	Ciprofloxacin	15	3	3										3														
	Enrofloxacin	16	3	3	1				1	1																		
Penicillins	Ampicillin	13	3	0												1	2											
Quinolones	Nalidixic acid	13	3	3	3																							
Sulfonamides	Sulfonamide	12	3	3	3																							
Tetracyclines	Tetracyclin	14	3	3	3																							
Trimethoprim	Trimethoprim	10	3	1	1											1	1											
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	3	0														3										

**Table Antimicrobial susceptibility testing of *S. Colindale* in fresh - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Colindale</b>		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - chilled - meat - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		3						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Colindale in liver - offal - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Colindale		Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling																									
		Isolates out of a monitoring program (yes/no)																									
		Number of isolates available in the laboratory																									
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	12	2	2							2																
	Kanamycin	13	2	1								1	1														
	Neomycin		0	0																							
	Streptomycin	11	2	2			1		1																		
Amphenicols	Chloramphenicol	12	2	0														1		1							
	Florfenicol		0	0																							
Cephalosporins	3rd generation cephalosporins		0	0																							
	Cefotaxim	14	2	0																1	1						
	Ceftazidim	14	2	0																	2						
Fluoroquinolones	Ciprofloxacin	15	2	2							1		1														
	Enrofloxacin	16	2	2						1		1															
Penicillins	Ampicillin	13	2	0																1	1						
Quinolones	Nalidixic acid	13	2	2	2																						
Sulfonamides	Sulfonamide	12	2	2	2																						
Tetracyclines	Tetracyclin	14	2	2	2																						
Trimethoprim	Trimethoprim	10	2	0							2																
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0							1							1									

**Table Antimicrobial susceptibility testing of *S. Colindale* in liver - offal - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Colindale</b>		Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Colindale* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Colindale		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0										1														
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1									1															
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	1										1														
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								
Penicillins	Ampicillin	13	1	0															1									
Quinolones	Nalidixic acid	13	1	1	1																							
Sulfonamides	Sulfonamide	12	1	1										1														
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	0														1										
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0															1									

**Table Antimicrobial susceptibility testing of *S. Colindale* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Colindale</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Derby* in fresh - Meat from pig - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Derby		Meat from pig - fresh - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks																													
		yes																													
		1																													
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
		Gentamicin	12	1	1						1																				
Aminoglycosides	Kanamycin	13	1	0																											
	Neomycin		0	0																											
	Streptomycin	11	1	1	1																										
	Chloramphenicol	12	1	0																											
Amphenicols	Florfenicol		0	0																											
	3rd generation cephalosporins		0	0																											
Cephalosporins	Cefotaxim	14	1	0																											
	Ceftazidim	14	1	0																											
	Ciprofloxacin	15	1	0																											
Fluoroquinolones	Enrofloxacin	16	1	0																											
	Penicillins	Ampicillin	13	1	0																										
Quinolones	Nalidixic acid	13	1	0																											
Sulfonamides	Sulfonamide	12	1	1	1																										
Tetracyclines	Tetracyclin	14	1	1	1																										
Trimethoprim	Trimethoprim	10	1	0																											
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																											

**Table Antimicrobial susceptibility testing of *S. Derby* in fresh - Meat from pig - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Derby</b>		Meat from pig - fresh - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Derby* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Derby		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																											
		Isolates out of a monitoring program (yes/no)																											
		Number of isolates available in the laboratory																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	1	1					1																				
	Kanamycin	13	1	1													1												
	Neomycin		0	0																									
	Streptomycin	11	1	1					1																				
Amphenicols	Chloramphenicol	12	1	0																								1	
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	1	0																								1	
	Ceftazidim	14	1	1					1																				
Fluoroquinolones	Ciprofloxacin	15	1	0																									
	Enrofloxacin	16	1	0																								1	
Penicillins	Ampicillin	13	1	0																									1
Quinolones	Nalidixic acid	13	1	0																									1
Sulfonamides	Sulfonamide	12	1	1	1																								
Tetracyclines	Tetracyclin	14	1	1	1																								
Trimethoprim	Trimethoprim	10	1	0																									1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																									1

**Table Antimicrobial susceptibility testing of *S. Derby* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Derby</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
		1						
Antimicrobials:		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		1					
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

Table Antimicrobial susceptibility testing of *S.Enteritidis* in animals

<b>S. Enteritidis</b>		Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Turkeys		Gallus gallus (fowl) - laying hens		Gallus gallus (fowl) - broilers		Chinchillas	
		no				no				no		no		no	
		1				214				10		192		3	
		N	n	N	n	N	n	N	n	N	n	N	n	N	n
Aminoglycosides	Gentamicin	1	0			212	1					190	0	3	0
	Streptomycin	1	0			213	8					192	4	3	0
Amphenicols	Chloramphenicol	1	0			212	2			10	0	190	0	3	0
	Florfenicol	1	0			190	1			10	0	171	1	3	0
Cephalosporins	3rd generation cephalosporins	1	0			214	4			10	0	192	4	3	0
Fluoroquinolones	Ciprofloxacin	1	0			214	2			10	0	192	2	3	0
	Enrofloxacin	1	0			214	34					192	32	3	0
Fully sensitive	Fully sensitive								10	1	192	23			
Penicillins	Ampicillin					121	1			3	0	105	1	3	0
Quinolones	Nalidixic acid	1	1			182	172					163	154	3	3
Resistant to 1 antimicrobial	Resistant to 1 antimicrobial									10	4	192	137		
Resistant to 2 antimicrobials	Resistant to 2 antimicrobials									10	3	192	23		
Resistant to 3 antimicrobials	Resistant to 3 antimicrobials									10	1	192	16		
Resistant to 4 antimicrobials	Resistant to 4 antimicrobials									10	0	192	2		
Resistant to >4 antimicrobials	Resistant to >4 antimicrobials									10	0	192	4		
Sulfonamides	Sulfonamide	1	0			214	9					192	6	3	0
Tetracyclines	Tetracyclin	1	0			213	13			10	2	191	11	3	0
Trimethoprim	Trimethoprim	1	0			212	7					190	6	3	0

**Table Antimicrobial susceptibility testing of S. Enteritidis in liver - offal - Meat from broilers (Gallus gallus) - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Enteritidis		Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0										1														
	Kanamycin	13	1	0											1													
	Neomycin		0	0																								
	Streptomycin	11	1	0												1												
Amphenicols	Chloramphenicol	12	1	0																					1			
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																					1			
	Ceftazidim	14	1	0														1										
Fluoroquinolones	Ciprofloxacin	15	1	0																1								
	Enrofloxacin	16	1	1														1										
Penicillins	Ampicillin	13	1	0																1								
Quinolones	Nalidixic acid	13	1	1	1																							
Sulfonamides	Sulfonamide	12	1	0												1												
Tetracyclines	Tetracyclin	14	1	0																				1				
Trimethoprim	Trimethoprim	10	1	0																1								
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																	1							

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in liver - offal - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Enteritidis</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling						
		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in liver - offal - Meat from broilers (*Gallus gallus*) - frozen - at retail - imported - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Enteritidis		Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling																										
		yes																										
		2																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	2	1	1													1										
	Kanamycin	13	2	1	1																					1		
	Neomycin		0	0																								
	Streptomycin	11	2	2	2																							
Amphenicols	Chloramphenicol	12	2	0																						1	1	
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	2	1												1												
	Ceftazidim	14	2	2	1												1											
Fluoroquinolones	Ciprofloxacin	15	2	0																								1
	Enrofloxacin	16	2	1																								
Penicillins	Ampicillin	13	2	1	1																							1
Quinolones	Nalidixic acid	13	2	1	1																							
Sulfonamides	Sulfonamide	12	2	1	1																							1
Tetracyclines	Tetracyclin	14	2	1	1																							1
Trimethoprim	Trimethoprim	10	2	1	1																							1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	2	1			1																				

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in liver - offal - Meat from broilers (*Gallus gallus*) - frozen - at retail - imported - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Enteritidis</b>		Meat from broilers ( <i>Gallus gallus</i> ) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim		1					
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Enteritidis</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																									
		Isolates out of a monitoring program (yes/no)																									
<b>Antimicrobials:</b>		Number of isolates available in the laboratory																									
		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	12	1	0																							
	Kanamycin	13	1	1																							
	Neomycin		0	0																							
	Streptomycin	11	1	0																							
Amphenicols	Chloramphenicol	12	1	0																							
	Florfenicol		0	0																							
Cephalosporins	3rd generation cephalosporins		0	0																							
	Cefotaxim	14	1	0																							
	Ceftazidim	14	1	0																							
Fluoroquinolones	Ciprofloxacin	15	1	0																							
	Enrofloxacin	16	1	1						1																	
Penicillins	Ampicillin	13	1	0														1									
Quinolones	Nalidixic acid	13	1	0																							
Sulfonamides	Sulfonamide	12	1	0															1								
Tetracyclines	Tetracyclin	14	1	0																							1
Trimethoprim	Trimethoprim	10	1	0																							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																							

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Enteritidis</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin	1						
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in carcass - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Enteritidis		Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - meat - Surveillance - official controls - objective sampling																													
		yes																													
		9																													
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Aminoglycosides	Gentamicin	12	9	2	1						1		3	1	1		1														
	Kanamycin	13	9	3						2		1	4		1									1							
	Neomycin		0	0																											
	Streptomycin	11	9	3	2					1		2	1	1		1															
Amphenicols	Chloramphenicol	12	9	0													1						3	1	1	1				1	
	Florfenicol		0	0																											
Cephalosporins	3rd generation cephalosporins		0	0																											
	Cefotaxim	14	9	1							1		1		1			1								1			2		
	Ceftazidim	14	9	2	1								1		1	1	1	1										2			
Fluoroquinolones	Ciprofloxacin	15	9	0														1		1	1	1	1	2	2			1			
	Enrofloxacin	16	9	5					1			1		2	1	1		1					1		1						
Penicillins	Ampicillin	13	9	1	1										1	1	1	1		1				2	1						
Quinolones	Nalidixic acid	13	9	5	4				1						1	1		1							1						
Sulfonamides	Sulfonamide	12	9	3	2				1			1		1	1		1						1								
Tetracyclines	Tetracyclin	14	9	1	1													1	1		2	1	1			1					
Trimethoprim	Trimethoprim	10	9	1	1													1	1	1	1		2	1				1			
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	9	1				1							1			1	1	2	1		1							1	

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in carcass - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Enteritidis</b>		Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - meat - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		9						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							1
	Kanamycin							
	Neomycin							
	Streptomycin	1						
Amphenicols	Chloramphenicol				1			
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim	1	1					
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide		1					
Tetracyclines	Tetracyclin			1				
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Enteritidis		Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling																													
		yes																													
		1																													
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
		Gentamicin	12	1	0									1																	
Aminoglycosides	Kanamycin	13	1	0																											
	Neomycin		0	0																											
	Streptomycin	11	1	0																											
	Chloramphenicol	12	1	0																											
Amphenicols	Florfenicol		0	0																											
	3rd generation cephalosporins		0	0																											
Cephalosporins	Cefotaxim	14	1	0																											
	Ceftazidim	14	1	1							1																				
Fluoroquinolones	Ciprofloxacin	15	1	0																											1
	Enrofloxacin	16	1	0																											1
Penicillins	Ampicillin	13	1	0																											
Quinolones	Nalidixic acid	13	1	0																											
Sulfonamides	Sulfonamide	12	1	1	1																										
Tetracyclines	Tetracyclin	14	1	0																											
Trimethoprim	Trimethoprim	10	1	0																											1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																											1

**Table Antimicrobial susceptibility testing of *S. Enteritidis* in Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Enteritidis</b>		Dairy products (excluding cheeses) - ice-cream - at catering - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Essen* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Essen		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0																								
	Kanamycin	13	1	1																								
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	0																								1
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								1
	Ceftazidim	14	1	1							1																	
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								
Penicillins	Ampicillin	13	1	0																								
Quinolones	Nalidixic acid	13	1	0																								1
Sulfonamides	Sulfonamide	12	1	1																								
Tetracyclines	Tetracyclin	14	1	0																								
Trimethoprim	Trimethoprim	10	1	1						1																		
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								

**Table Antimicrobial susceptibility testing of *S. Essen* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Essen</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin				1			
	Enrofloxacin				1			
Penicillins	Ampicillin	1						
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin	1						
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Essen in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Essen		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																											
		Isolates out of a monitoring program (yes/no)																											
		Number of isolates available in the laboratory																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	1	0																									
	Kanamycin	13	1	1						1																			
	Neomycin		0	0																									
	Streptomycin	11	1	1					1																				
Amphenicols	Chloramphenicol	12	1	0																								1	
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	1	0																								1	
	Ceftazidim	14	1	0																								1	
Fluoroquinolones	Ciprofloxacin	15	1	0																								1	
	Enrofloxacin	16	1	0																								1	
Penicillins	Ampicillin	13	1	0																									
Quinolones	Nalidixic acid	13	1	1													1												
Sulfonamides	Sulfonamide	12	1	0																								1	
Tetracyclines	Tetracyclin	14	1	1						1																			
Trimethoprim	Trimethoprim	10	1	0																								1	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1	

**Table Antimicrobial susceptibility testing of *S. Essen* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Essen</b>		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin			1				
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Give in minced meat - Meat from pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Give		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	2	0								1	1															
	Kanamycin	13	2	1								1	1															
	Neomycin		0	0																								
	Streptomycin	11	2	1					1		1																	
Amphenicols	Chloramphenicol	12	2	0																					1		1	
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	2	0																						1		
	Ceftazidim	14	2	0														2										
Fluoroquinolones	Ciprofloxacin	15	2	2	1			1																				
	Enrofloxacin	16	2	0																					1	1		
Penicillins	Ampicillin	13	2	0																2								
Quinolones	Nalidixic acid	13	2	0																2								
Sulfonamides	Sulfonamide	12	2	1					1								1											
Tetracyclines	Tetracyclin	14	2	1	1													1										
Trimethoprim	Trimethoprim	10	2	0															1	1								
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0															1		1							

**Table Antimicrobial susceptibility testing of *S. Give* in minced meat - Meat from pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Give</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim		1					
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Give in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Give		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																											
		Isolates out of a monitoring program (yes/no)																											
		Number of isolates available in the laboratory																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	1	0								1																	
	Kanamycin	13	1	0									1																
	Neomycin		0	0																									
	Streptomycin	11	1	0							1																		
Amphenicols	Chloramphenicol	12	1	0															1										
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																1									
	Cefotaxim	14	1	0																1									
	Ceftazidim	14	1	0																1									
Fluoroquinolones	Ciprofloxacin	15	1	0																	1								
	Enrofloxacin	16	1	1															1										
Penicillins	Ampicillin	13	1	1				1																					
Quinolones	Nalidixic acid	13	1	0													1												
Sulfonamides	Sulfonamide	12	1	0																									
Tetracyclines	Tetracyclin	14	1	1												1													
Trimethoprim	Trimethoprim	10	1	0															1										
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																	1								

**Table Antimicrobial susceptibility testing of S. Give in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Give		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							1
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Give in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Give		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling																												
		Isolates out of a monitoring program (yes/no)																												
		Number of isolates available in the laboratory																												
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			
Aminoglycosides	Gentamicin	12	3	1						1					1	1														
	Kanamycin	13	3	0											1	1										1				
	Neomycin		0	0																										
	Streptomycin	11	3	1	1							2																		
Amphenicols	Chloramphenicol	12	3	0														1	1			1								
	Florfenicol		0	0																										
Cephalosporins	3rd generation cephalosporins		0	0																										
	Cefotaxim	14	3	0													2													
	Ceftazidim	14	3	1									1			1			1											
Fluoroquinolones	Ciprofloxacin	15	3	0																			1							
	Enrofloxacin	16	3	0														1								1				
Penicillins	Ampicillin	13	3	1	1														1	1										
Quinolones	Nalidixic acid	13	3	1						1									1							1				
Sulfonamides	Sulfonamide	12	3	1							1							1		1										
Tetracyclines	Tetracyclin	14	3	2	1											1			1											
Trimethoprim	Trimethoprim	10	3	0															1			1							1	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	3	0																										

**Table Antimicrobial susceptibility testing of S. Give in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Give</b>		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		3						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim				1			
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		2					
	Enrofloxacin		1					
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides		1					

**Table Antimicrobial susceptibility testing of S. Give in fresh - Meat from bovine animals - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Give		Meat from bovine animals - fresh - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0											1													
	Kanamycin	13	1	1	1																							
	Neomycin		0	0																								
	Streptomycin	11	1	0											1													
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																							1	
	Ceftazidim	14	1	0																								
Fluoroquinolones	Ciprofloxacin	15	1	0																							1	
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0														1										
Quinolones	Nalidixic acid	13	1	0																	1							
Sulfonamides	Sulfonamide	12	1	0																1								
Tetracyclines	Tetracyclin	14	1	0																							1	
Trimethoprim	Trimethoprim	10	1	0																							1	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	1	1																							

**Table Antimicrobial susceptibility testing of *S. Give* in fresh - Meat from bovine animals - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Give</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		Meat from bovine animals - fresh - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling						
		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Infantis* in minced meat - Meat from pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Infantis		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	1							1																	
	Kanamycin	13	1	0														1										
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	0																						1		
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																						1		
	Ceftazidim	14	1	0																						1		
Fluoroquinolones	Ciprofloxacin	15	1	0																							1	
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																1								
Quinolones	Nalidixic acid	13	1	0																						1		
Sulfonamides	Sulfonamide	12	1	0																						1		
Tetracyclines	Tetracyclin	14	1	0																						1		
Trimethoprim	Trimethoprim	10	1	0																						1		
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																						1		

**Table Antimicrobial susceptibility testing of *S. Infantis* in minced meat - Meat from pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Infantis</b>		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
		yes						
		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin							
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of S. Infantis in Meat from broilers (*Gallus gallus*) - fresh - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Infantis		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at retail - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0									1															
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1			1																					
Amphenicols	Chloramphenicol	12	1	0										1														
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																				1				
	Ceftazidim	14	1	0																					1			
Fluoroquinolones	Ciprofloxacin	15	1	1												1												
	Enrofloxacin	16	1	1										1														
Penicillins	Ampicillin	13	1	0													1											
Quinolones	Nalidixic acid	13	1	1	1																							
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	0													1											
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0															1									

**Table Antimicrobial susceptibility testing of *S. Infantis* in Meat from broilers (*Gallus gallus*) - fresh - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Infantis</b>		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Infantis* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Infantis		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																									
		Isolates out of a monitoring program (yes/no)																									
		Number of isolates available in the laboratory																									
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	12	2	0								1					1										
	Kanamycin	13	2	2									2														
	Neomycin		0	0																							
	Streptomycin	11	2	1						1		1															
Amphenicols	Chloramphenicol	12	2	0															1		1						
	Florfenicol		0	0																							
Cephalosporins	3rd generation cephalosporins		0	0																							
	Cefotaxim	14	2	0												1	1										
	Ceftazidim	14	2	2	1								1														
Fluoroquinolones	Ciprofloxacin	15	2	0												1					1						
	Enrofloxacin	16	2	1												1		1									
Penicillins	Ampicillin	13	2	0												1		1									
Quinolones	Nalidixic acid	13	2	0											1		1										
Sulfonamides	Sulfonamide	12	2	2	1						1																
Tetracyclines	Tetracyclin	14	2	0												1		1									
Trimethoprim	Trimethoprim	10	2	0												1			1								
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0												1					1						

**Table Antimicrobial susceptibility testing of *S. Infantis* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Infantis</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Isangi* in fresh - Meat from pig - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Isangi</b>  Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		<b>Meat from pig - fresh - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling</b>																											
		yes																											
		1																											
<b>Antimicrobials:</b>		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
		Gentamicin	12	1	0								1																
Aminoglycosides	Kanamycin	13	1	1								1																	
	Neomycin		0	0																									
	Streptomycin	11	1	1						1																			
																												1	
Amphenicols	Chloramphenicol	12	1	0																									
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	1	0																									1
	Ceftazidim	14	1	0																									
Fluoroquinolones	Ciprofloxacin	15	1	0																									
	Enrofloxacin	16	1	0																									1
Penicillins	Ampicillin	13	1	0																									1
Quinolones	Nalidixic acid	13	1	0																									1
Sulfonamides	Sulfonamide	12	1	0																									1
Tetracyclines	Tetracyclin	14	1	0																									1
Trimethoprim	Trimethoprim	10	1	0																									1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																									1

**Table Antimicrobial susceptibility testing of *S. Isangi* in fresh - Meat from pig - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Isangi</b>		Meat from pig - fresh - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin			1				
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of *S. Kedougou* in intended to be eaten cooked - minced meat - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Kedougou		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	2	0									1	1														
	Kanamycin	13	2	0									1	1														
	Neomycin		0	0																								
	Streptomycin	11	2	2						2																		
Amphenicols	Chloramphenicol	12	2	0																						1	1	
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	2	0																								1
	Ceftazidim	14	2	0																						1		
Fluoroquinolones	Ciprofloxacin	15	2	0																						1	1	
	Enrofloxacin	16	2	0																					1	1		
Penicillins	Ampicillin	13	2	0																					1	1		
Quinolones	Nalidixic acid	13	2	0																					1	1		
Sulfonamides	Sulfonamide	12	2	2	1		1																					
Tetracyclines	Tetracyclin	14	2	2			1		1																			
Trimethoprim	Trimethoprim	10	2	2	1		1																					
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	2	1		1																					

**Table Antimicrobial susceptibility testing of *S. Kedougou* in intended to be eaten cooked - minced meat - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Kedougou</b>		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim	1						
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Kivu in fresh - Meat from sheep - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Kivu		Meat from sheep - fresh - chilled - meat - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
	Antimicrobials:	break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0										1														
	Kanamycin	13	1	0										1														
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	0																							1	
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0														1										
	Ceftazidim	14	1	1										1														
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	1	1																							
Penicillins	Ampicillin	13	1	0																				1				
Quinolones	Nalidixic acid	13	1	0																				1				
Sulfonamides	Sulfonamide	12	1	0																							1	
Tetracyclines	Tetracyclin	14	1	0																							1	
Trimethoprim	Trimethoprim	10	1	0																							1	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1

**Table Antimicrobial susceptibility testing of *S. Kivu* in fresh - Meat from sheep - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Kivu</b>		Meat from sheep - fresh - chilled - meat - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin	1						
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of *S. Koessen* in fresh - Meat from broilers (*Gallus gallus*) - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Koessen		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																											
		yes																											
		1																											
	Antimicrobials:	break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	1	0																									
	Kanamycin	13	1	1						1																			
	Neomycin		0	0																									
	Streptomycin	11	1	1						1																			
Amphenicols	Chloramphenicol	12	1	0																								1	
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	1	1	1																								
	Ceftazidim	14	1	0																								1	
Fluoroquinolones	Ciprofloxacin	15	1	0																								1	
	Enrofloxacin	16	1	1																								1	
Penicillins	Ampicillin	13	1	1	1																								
Quinolones	Nalidixic acid	13	1	1	1																								
Sulfonamides	Sulfonamide	12	1	1	1																								
Tetracyclines	Tetracyclin	14	1	0																								1	
Trimethoprim	Trimethoprim	10	1	1				1																					
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	1	1																								

**Table Antimicrobial susceptibility testing of *S. Koessen* in fresh - Meat from broilers (*Gallus gallus*) - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Koessen</b>		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Kortrijk* in carcass - Meat from bovine animals - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Kortrijk		Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks																												
		Isolates out of a monitoring program (yes/no)																												
		Number of isolates available in the laboratory																												
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			
Aminoglycosides	Gentamicin	12	2	0													2													
	Kanamycin	13	2	1													1	1												
	Neomycin		0	0																										
	Streptomycin	11	2	2									2																	
Amphenicols	Chloramphenicol	12	2	0																										
	Florfenicol		0	0																										
Cephalosporins	3rd generation cephalosporins		0	0																										
	Cefotaxim	14	2	0																1						1				
	Ceftazidim	14	2	1													1	1												
Fluoroquinolones	Ciprofloxacin	15	2	0																	1									
	Enrofloxacin	16	2	0																			1			1				
Penicillins	Ampicillin	13	2	0																1	1									
Quinolones	Nalidixic acid	13	2	0																	2									
Sulfonamides	Sulfonamide	12	2	2									2																	
Tetracyclines	Tetracyclin	14	2	0															1	1										
Trimethoprim	Trimethoprim	10	2	0														1							1					
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0																	1		1							

**Table Antimicrobial susceptibility testing of *S. Kortrijk* in carcass - Meat from bovine animals - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Kortrijk</b>		Meat from bovine animals - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin			1				
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Kortrijk in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Kortrijk		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																									
		Isolates out of a monitoring program (yes/no)																									
		Number of isolates available in the laboratory																									
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	12	2	1							1		1														
	Kanamycin	13	2	1							1		1														
	Neomycin		0	0																							
	Streptomycin	11	2	2						1	1																
Amphenicols	Chloramphenicol	12	2	0																1			1				
	Florfenicol		0	0																							
Cephalosporins	3rd generation cephalosporins		0	0																							
	Cefotaxim	14	2	0																	1					1	
	Ceftazidim	14	2	1									1					1									
Fluoroquinolones	Ciprofloxacin	15	2	0																							
	Enrofloxacin	16	2	0																							1
Penicillins	Ampicillin	13	2	0																1	1						
Quinolones	Nalidixic acid	13	2	0													1		1								
Sulfonamides	Sulfonamide	12	2	0														1								1	
Tetracyclines	Tetracyclin	14	2	1										1					1								
Trimethoprim	Trimethoprim	10	2	0										1													1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0															1	1							

**Table Antimicrobial susceptibility testing of *S. Kortrijk* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Kortrijk</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin						2	
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Kottbus* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Kottbus		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
		Gentamicin	12	1	1	1																						
Aminoglycosides	Kanamycin	13	1	1	1																							
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
Amphenicols	Chloramphenicol	12	1	1	1																							
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	1	1																							
	Ceftazidim	14	1	1	1																							
Fluoroquinolones	Ciprofloxacin	15	1	1	1																							
	Enrofloxacin	16	1	0																								
Penicillins	Ampicillin	13	1	1	1																							
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	1	1																							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	1	1																							

**Table Antimicrobial susceptibility testing of *S. Kottbus* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Kottbus</b>		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Kristianstad* in Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Kristianstad		Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0											1													
	Kanamycin	13	1	0													1											
	Neomycin		0	0																								
	Streptomycin	11	1	1				1																				
Amphenicols	Chloramphenicol	12	1	1	1																							
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0															1									
	Ceftazidim	14	1	0																1								
Fluoroquinolones	Ciprofloxacin	15	1	0																								1
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																								
Quinolones	Nalidixic acid	13	1	0														1										
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	1						1																		
Trimethoprim	Trimethoprim	10	1	1	1																							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	1	1																							

**Table Antimicrobial susceptibility testing of *S. Kristianstad* in Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Kristianstad</b>		Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin			1				
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Litchfield* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Litchfield		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0										1														
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1			1																					
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								1
	Ceftazidim	14	1	1								1																
Fluoroquinolones	Ciprofloxacin	15	1	0																								1
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																								
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	0																								1
Tetracyclines	Tetracyclin	14	1	0																								
Trimethoprim	Trimethoprim	10	1	0																								1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1

**Table Antimicrobial susceptibility testing of *S. Litchfield* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Litchfield</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin							
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of *S. Livingstone* in carcass - Meat from bovine animals - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Livingstone		Meat from bovine animals - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0								1																
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	0																1								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0															1									
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								
Penicillins	Ampicillin	13	1	0																1								
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	1							1																	
Tetracyclines	Tetracyclin	14	1	0																1								
Trimethoprim	Trimethoprim	10	1	0																	1							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1

**Table Antimicrobial susceptibility testing of *S. Livingstone* in carcass - Meat from bovine animals - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Livingstone</b>		Meat from bovine animals - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin				1			
	Enrofloxacin			1				
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Livingstone* in fresh - Meat from bovine animals - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Livingstone		Meat from bovine animals - fresh - chilled - - meat - Surveillance - official controls - objective sampling																											
		yes																											
		3																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	3	2					1		1	1																	
	Kanamycin	13	3	0													1			1									
	Neomycin		0	0																									
	Streptomycin	11	3	2						2		1																	
Amphenicols	Chloramphenicol	12	3	0																2	1								
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	3	0															1	2									
	Ceftazidim	14	3	3						2		1																	
Fluoroquinolones	Ciprofloxacin	15	3	0																						1	1		
	Enrofloxacin	16	3	0																	1				1	1			
Penicillins	Ampicillin	13	3	0														1		1		1							
Quinolones	Nalidixic acid	13	3	0															1				2						
Sulfonamides	Sulfonamide	12	3	0											1			1	1										
Tetracyclines	Tetracyclin	14	3	0														1	2										
Trimethoprim	Trimethoprim	10	3	0														1		1		1							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	3	0																	2	1							

**Table Antimicrobial susceptibility testing of *S. Livingstone* in fresh - Meat from bovine animals - chilled - at slaughterhouse - animal sample - meat - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Livingstone</b>		Meat from bovine animals - fresh - chilled - meat - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		3						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin	1						
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Livingstone* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Livingstone</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling																											
		Isolates out of a monitoring program (yes/no)																											
<b>Antimicrobials:</b>		Number of isolates available in the laboratory																											
		5																											
		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	5	0								1	2		2														
	Kanamycin	13	5	1								1		1	1	2													
	Neomycin		0	0																									
	Streptomycin	11	5	1							1	4																	
Amphenicols	Chloramphenicol	12	5	0															1	2	1				1				
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	5	0																2		1	1				1		
	Ceftazidim	14	5	5						3	1	1																	
Fluoroquinolones	Ciprofloxacin	15	5	0																						1	1	2	1
	Enrofloxacin	16	5	0																		2		1	2				
Penicillins	Ampicillin	13	5	0													1			3	1								
Quinolones	Nalidixic acid	13	5	0															1	1	2			1					
Sulfonamides	Sulfonamide	12	5	3	1		1		1						1	1													
Tetracyclines	Tetracyclin	14	5	0												2			1			2							
Trimethoprim	Trimethoprim	10	5	0																1	2	2							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	5	0																1	3	1							

**Table Antimicrobial susceptibility testing of *S. Livingstone* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Livingstone</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		5						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Livingstone* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Livingstone		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points																										
Aminoglycosides	Gentamicin	12	3	2					1		1	1																
	Kanamycin	13	3	0														1			1							
	Neomycin		0	0																								
	Streptomycin	11	3	2						2		1																
Amphenicols	Chloramphenicol	12	3	0																2	1							
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	3	0																1	2							
	Ceftazidim	14	3	3						2		1																
Fluoroquinolones	Ciprofloxacin	15	3	0																							1	1
	Enrofloxacin	16	3	0																		1				1		1
Penicillins	Ampicillin	13	3	0														1		1		1						
Quinolones	Nalidixic acid	13	3	0															1				2					
Sulfonamides	Sulfonamide	12	3	0												1			1	1								
Tetracyclines	Tetracyclin	14	3	0															1	2								
Trimethoprim	Trimethoprim	10	3	0															1		1		1					
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	3	0																		2	1					

**Table Antimicrobial susceptibility testing of *S. Livingstone* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Livingstone</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		3						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin	1						
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Livingstone* in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Livingstone		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - HACCP and own checks																										
		yes																										
		1																										
	Antimicrobials:	break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0										1														
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	0										1														
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	1								1																
Fluoroquinolones	Ciprofloxacin	15	1	0																					1			
	Enrofloxacin	16	1	0																						1		
Penicillins	Ampicillin	13	1	0																								
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	0																								
Trimethoprim	Trimethoprim	10	1	1	1																							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								

**Table Antimicrobial susceptibility testing of *S. Livingstone* in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Livingstone</b>		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - HACCP and own checks						
Isolates out of a monitoring program (yes/no)		yes						
Number of isolates available in the laboratory		1						
<b>Antimicrobials:</b>		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S. Livingstone in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Livingstone		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling																											
		yes																											
		4																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	4	1					1						1	1	1												
	Kanamycin	13	4	0												1		2	1										
	Neomycin		0	0																									
	Streptomycin	11	4	2						1	1				1			1											
Amphenicols	Chloramphenicol	12	4	0													2		1	1									
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	4	0													1		1			1							
	Ceftazidim	14	4	4			1			2	1																		
Fluoroquinolones	Ciprofloxacin	15	4	0																							1	1	
	Enrofloxacin	16	4	0															1							1	1		
Penicillins	Ampicillin	13	4	0												1	1	1		1									
Quinolones	Nalidixic acid	13	4	0													2		2										
Sulfonamides	Sulfonamide	12	4	1			1									1					2								
Tetracyclines	Tetracyclin	14	4	0												1		2		1									
Trimethoprim	Trimethoprim	10	4	0											1		1				1		1						
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	4	0																1			3						

**Table Antimicrobial susceptibility testing of *S. Livingstone* in fresh - Meat from pig - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Livingstone</b>		Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		4						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		2					
	Enrofloxacin				1			
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. London* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. London		Meat from pig - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0														1										
	Kanamycin	13	1	0														1										
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																					1			
	Ceftazidim	14	1	0																					1			
Fluoroquinolones	Ciprofloxacin	15	1	0																					1			
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																								1
Quinolones	Nalidixic acid	13	1	0																								1
Sulfonamides	Sulfonamide	12	1	0																								1
Tetracyclines	Tetracyclin	14	1	1																								1
Trimethoprim	Trimethoprim	10	1	0																								1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1

**Table Antimicrobial susceptibility testing of S. London in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. London</b>		Meat from pig - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Mapo* in carcass - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - neck skin - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Mapo		Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	1							1																	
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	0																								1
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								1
	Ceftazidim	14	1	1							1																	
Fluoroquinolones	Ciprofloxacin	15	1	0																								1
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																								1
Quinolones	Nalidixic acid	13	1	1	1																							
Sulfonamides	Sulfonamide	12	1	1							1																	
Tetracyclines	Tetracyclin	14	1	1						1																		
Trimethoprim	Trimethoprim	10	1	0																								1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1

**Table Antimicrobial susceptibility testing of *S. Mapo* in carcass - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - neck skin - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b><i>S. Mapo</i></b>		Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin							
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of *S. Montevideo* in fresh - Meat from pig - frozen - at processing plant - domestic production - Surveillance - official controls - selective sampling - quantitative data [Diffusion method]**

S. Montevideo		Meat from pig - fresh - frozen - at processing plant - domestic production - Surveillance - official controls - selective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points																										
Aminoglycosides	Gentamicin	12	2	1	1														1									
	Kanamycin	13	2	0																1								
	Neomycin		0	0																								
	Streptomycin	11	2	2	1																							
Amphenicols	Chloramphenicol	12	2	0																							1	1
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	2	1																								1
	Ceftazidim	14	2	0																							1	1
Fluoroquinolones	Ciprofloxacin	15	2	0																								1
	Enrofloxacin	16	2	0																								1
Penicillins	Ampicillin	13	2	0																								1
Quinolones	Nalidixic acid	13	2	0																							1	1
Sulfonamides	Sulfonamide	12	2	1	1															1								
Tetracyclines	Tetracyclin	14	2	2					2																			
Trimethoprim	Trimethoprim	10	2	1	1																1							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	1	1															1								

**Table Antimicrobial susceptibility testing of *S. Montevideo* in fresh - Meat from pig - frozen - at processing plant - domestic production - Surveillance - official controls - selective sampling - quantitative data [Diffusion method]**

<b>S. Montevideo</b>		Meat from pig - fresh - frozen - at processing plant - domestic production - Surveillance - official controls - selective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin				1			
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin			1				
	Enrofloxacin				1			
Penicillins	Ampicillin			1				
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Muenchen* in intended to be eaten cooked - minced meat - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Muenchen		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0										1														
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1			1																					
Amphenicols	Chloramphenicol	12	1	0																					1			
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																						1		
	Ceftazidim	14	1	1							1																	
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																						1		
Penicillins	Ampicillin	13	1	0																1								
Quinolones	Nalidixic acid	13	1	0																1								
Sulfonamides	Sulfonamide	12	1	0																1								
Tetracyclines	Tetracyclin	14	1	0																1								
Trimethoprim	Trimethoprim	10	1	0																			1					
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																			1					

**Table Antimicrobial susceptibility testing of *S. Muenchen* in intended to be eaten cooked - minced meat - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Muenchen</b>		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin			1				
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Muenchen* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Muenchen		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																									
		Isolates out of a monitoring program (yes/no)																									
		Number of isolates available in the laboratory																									
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	12	4	0								1		2		1											
	Kanamycin	13	4	0										1	1			1	1								
	Neomycin		0	0																							
	Streptomycin	11	4	4					1	3																	
Amphenicols	Chloramphenicol	12	4	0																	1	1	1		1		
	Florfenicol		0	0																							
Cephalosporins	3rd generation cephalosporins		0	0																							
	Cefotaxim	14	4	0																		1			1		
	Ceftazidim	14	4	3							2	1		1													
Fluoroquinolones	Ciprofloxacin	15	4	1								1										1		1	1		
	Enrofloxacin	16	4	0																		1	1		1	1	
Penicillins	Ampicillin	13	4	0																1	1	1		1			
Quinolones	Nalidixic acid	13	4	0															2	1	1						
Sulfonamides	Sulfonamide	12	4	1						1									2	1							
Tetracyclines	Tetracyclin	14	4	0																1	2		1				
Trimethoprim	Trimethoprim	10	4	0																1	1	1	1	1			
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	4	0															1		1	1	1				

**Table Antimicrobial susceptibility testing of *S. Muenchen* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Muenchen</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		4						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim	1	1					
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Rissen* in fresh - Meat from pig - chilled - at slaughterhouse - animal sample - lymph nodes - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Rissen		Meat from pig - fresh - chilled - - lymph nodes - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	1							1																	
	Kanamycin	13	1	1							1																	
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
Amphenicols	Chloramphenicol	12	1	1						1																		
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0															1									
	Ceftazidim	14	1	0																		1						
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																				1				
Penicillins	Ampicillin	13	1	0																				1				
Quinolones	Nalidixic acid	13	1	1			1																					
Sulfonamides	Sulfonamide	12	1	0																				1				
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	0																				1				
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																					1			

**Table Antimicrobial susceptibility testing of *S. Rissen* in fresh - Meat from pig - chilled - at slaughterhouse - animal sample - lymph nodes - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Rissen</b>		Meat from pig - fresh - chilled - - lymph nodes - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin	1						
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Rissen* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Rissen		Meat from pig - carcass - chilled - carcass swabs - Surveillance - official controls - objective sampling																												
		yes																												
		2																												
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			
Aminoglycosides	Gentamicin	12	2	1							1			1																
	Kanamycin	13	2	1									1					1												
	Neomycin		0	0																										
	Streptomycin	11	2	1	1							1																		
Amphenicols	Chloramphenicol	12	2	0																							1			
	Florfenicol		0	0																										
Cephalosporins	3rd generation cephalosporins		0	0																										
	Cefotaxim	14	2	0														1			1									
	Ceftazidim	14	2	0														1			1									
Fluoroquinolones	Ciprofloxacin	15	2	0																										1
	Enrofloxacin	16	2	0																										1
Penicillins	Ampicillin	13	2	0														1			1									
Quinolones	Nalidixic acid	13	2	0														1	1											
Sulfonamides	Sulfonamide	12	2	1	1													1												
Tetracyclines	Tetracyclin	14	2	2	1			1																						
Trimethoprim	Trimethoprim	10	2	0															1							1				
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0															1							1				

**Table Antimicrobial susceptibility testing of *S. Rissen* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Rissen</b>		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin			1				
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Ruzizi* in fresh - Meat from bovine animals - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Ruzizi		Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0																								
	Kanamycin	13	1	1																								
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
Amphenicols	Chloramphenicol	12	1	1	1																							
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								1
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0																								
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	1	1																							
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	1				1																				
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								

**Table Antimicrobial susceptibility testing of *S. Ruzizi* in fresh - Meat from bovine animals - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Ruzizi</b>		Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin		1					
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Ruzizi* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Ruzizi		Meat from pig - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0																								
	Kanamycin	13	1	0																								1
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
Amphenicols	Chloramphenicol	12	1	1	1																							
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0															1									
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	1	1																							
Quinolones	Nalidixic acid	13	1	0															1									
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	1	1																							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								

**Table Antimicrobial susceptibility testing of *S. Ruzizi* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Ruzizi</b>		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		yes						
		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim	1						
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin		1					
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>		1					

**Table Antimicrobial susceptibility testing of *S. Saintpaul* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Saintpaul		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0									1															
	Kanamycin	13	1	1									1															
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0									1															
Fluoroquinolones	Ciprofloxacin	15	1	0																								1
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																								
Quinolones	Nalidixic acid	13	1	0									1															
Sulfonamides	Sulfonamide	12	1	0																								1
Tetracyclines	Tetracyclin	14	1	1					1																			
Trimethoprim	Trimethoprim	10	1	0																								1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0															1									

**Table Antimicrobial susceptibility testing of *S. Saintpaul* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Saintpaul</b>		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin			1				
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Saintpaul* in Meat from broilers (*Gallus gallus*) - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Saintpaul		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		2																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	2	1					1			1																
	Kanamycin	13	2	2	2																							
	Neomycin		0	0																								
	Streptomycin	11	2	2	2																							
Amphenicols	Chloramphenicol	12	2	0																							1	1
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	2	0															1	1								
	Ceftazidim	14	2	0															1	1								
Fluoroquinolones	Ciprofloxacin	15	2	0																						1	1	
	Enrofloxacin	16	2	0																		1		1				
Penicillins	Ampicillin	13	2	2	2																							
Quinolones	Nalidixic acid	13	2	1								1								1								
Sulfonamides	Sulfonamide	12	2	1			1													1								
Tetracyclines	Tetracyclin	14	2	0																	1	1						
Trimethoprim	Trimethoprim	10	2	2	2																							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	2				2																				

**Table Antimicrobial susceptibility testing of *S. Saintpaul* in Meat from broilers (*Gallus gallus*) - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Saintpaul</b>		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Saintpaul* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Saintpaul		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																													
		Isolates out of a monitoring program (yes/no)																													
		Number of isolates available in the laboratory																													
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Aminoglycosides	Gentamicin	12	5	2				1			1	1	1	1																	
	Kanamycin	13	5	2							1	1	2	1																	
	Neomycin		0	0																											
	Streptomycin	11	5	4				1	1	2	1																				
Amphenicols	Chloramphenicol	12	5	0																					1	1	1		2		
	Florfenicol		0	0																											
Cephalosporins	3rd generation cephalosporins		0	0																											
	Cefotaxim	14	5	0																1	2			1							
	Ceftazidim	14	5	1				1										1	2			1									
Fluoroquinolones	Ciprofloxacin	15	5	0																					1					1	
	Enrofloxacin	16	5	0																					1			2	2		
Penicillins	Ampicillin	13	5	3	3																			2							
Quinolones	Nalidixic acid	13	5	1	1																			2		1	1				
Sulfonamides	Sulfonamide	12	5	1	1							1												1							
Tetracyclines	Tetracyclin	14	5	0														1	1	2			1								
Trimethoprim	Trimethoprim	10	5	0																				1			1				
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	5	2	2																			1	1						

**Table Antimicrobial susceptibility testing of *S. Saintpaul* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Saintpaul</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		5						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim			1				
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin			2			1	
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>			1				1
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>			3				
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>			1				

**Table Antimicrobial susceptibility testing of *S. Sandiego* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Sandiego		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0																								
	Kanamycin	13	1	1																								
	Neomycin		0	0																								
	Streptomycin	11	1	1																								
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0																								
Fluoroquinolones	Ciprofloxacin	15	1	0																								1
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																								
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	0																								1
Tetracyclines	Tetracyclin	14	1	0																								
Trimethoprim	Trimethoprim	10	1	0																								1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								

**Table Antimicrobial susceptibility testing of S. Sandiego in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Sandiego</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
Isolates out of a monitoring program (yes/no)		yes						
Number of isolates available in the laboratory		1						
<b>Antimicrobials:</b>		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Senftenberg* in carcass - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - neck skin - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Senftenberg		Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks																										
		yes																										
		1																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0											1													
	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	0											1													
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	1					1																			
Fluoroquinolones	Ciprofloxacin	15	1	0																								1
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	0																								
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	1											1													
Tetracyclines	Tetracyclin	14	1	0																								
Trimethoprim	Trimethoprim	10	1	0																								1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1

**Table Antimicrobial susceptibility testing of *S. Senftenberg* in carcass - Meat from broilers (*Gallus gallus*) - chilled - at slaughterhouse - animal sample - neck skin - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b>S. Senftenberg</b>		Meat from broilers ( <i>Gallus gallus</i> ) - carcass - chilled - - neck skin - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Tennessee* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Tennessee		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
	Antimicrobials:	break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	0										1														
	Kanamycin	13	1	1								1																
	Neomycin		0	0																								
	Streptomycin	11	1	1						1																		
Amphenicols	Chloramphenicol	12	1	0																				1				
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0																			1					
	Ceftazidim	14	1	0																		1						
Fluoroquinolones	Ciprofloxacin	15	1	0																							1	
	Enrofloxacin	16	1	0																						1		
Penicillins	Ampicillin	13	1	0																					1			
Quinolones	Nalidixic acid	13	1	0																		1						
Sulfonamides	Sulfonamide	12	1	1								1																
Tetracyclines	Tetracyclin	14	1	0																				1				
Trimethoprim	Trimethoprim	10	1	0											1													
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																				1				

**Table Antimicrobial susceptibility testing of *S. Tennessee* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Tennessee</b>		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of S.Typhimurium in animals**

<b>S. Typhimurium</b>		Pigeons		Chinchillas		Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Turkeys		Gallus gallus (fowl) - laying hens		Gallus gallus (fowl) - broilers	
		no		no		no		no		no				no		no	
		5		1		2		11		9				2		7	
<b>Antimicrobials:</b>		N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n
Aminoglycosides	Gentamicin	5	0	1	0	2	1	11	2	9	0			2	0	7	0
	Streptomycin	5	2	1	1	2	1	11	9	9	2			2	0	7	2
Amphenicols	Chloramphenicol	5	0	1	0	2	0	11	2	9	0			2	0	7	0
	Florfenicol	3	0			1	0	7	0	3	0					3	0
Cephalosporins	3rd generation cephalosporins	5	0	1	0	2	0	11	0	9	0			2	0	7	0
Fluoroquinolones	Ciprofloxacin	5	0	1	0	2	0	11	0	9	0			2	0	7	0
	Enrofloxacin	5	0	1	0	2	0	11	0	9	0			2	0	7	0
Fully sensitive	Fully sensitive					2	0	11	1					2	1	7	0
Penicillins	Ampicillin	4	0	1	1	1	0	5	5	6	1			2	0	4	1
Quinolones	Nalidixic acid	4	1	1	0	1	0	7	3	9	0			2	0	7	0
Resistant to 1 antimicrobial	Resistant to 1 antimicrobial					2	0	11	0					2	0	7	1
Resistant to 2 antimicrobials	Resistant to 2 antimicrobials					2	0	11	0					2	0	7	0
Resistant to 3 antimicrobials	Resistant to 3 antimicrobials					2	0	11	2					2	0	7	0
Resistant to 4 antimicrobials	Resistant to 4 antimicrobials					2	0	11	4					2	0	7	1
Resistant to >4 antimicrobials	Resistant to >4 antimicrobials					2	2	11	4					2	0	7	0
Sulfonamides	Sulfonamide	5	0			2	1	11	10	9	1			2	0	7	1
Tetracyclines	Tetracyclin	5	0	1	1	2	1	11	10	9	2			2	0	7	2
Trimethoprim	Trimethoprim	5	0	1	0	2	1	11	5	9	0			2	0	7	0

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Typhimurium		Meat from pig - carcass - chilled - carcass swabs - Surveillance - official controls - objective sampling																									
		yes																									
		2																									
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	12	2	1							1			1													
	Kanamycin	13	2	0										1				1									
	Neomycin		0	0																							
	Streptomycin	11	2	2	1					1																	
Amphenicols	Chloramphenicol	12	2	1				1									1										
	Florfenicol		0	0																							
Cephalosporins	3rd generation cephalosporins		0	0																							
	Cefotaxim	14	2	0																	1						1
	Ceftazidim	14	2	1										1						1							
Fluoroquinolones	Ciprofloxacin	15	2	0																						1	
	Enrofloxacin	16	2	0															1								1
Penicillins	Ampicillin	13	2	1	1												1										
Quinolones	Nalidixic acid	13	2	1	1													1									
Sulfonamides	Sulfonamide	12	2	2	2																						
Tetracyclines	Tetracyclin	14	2	2						1		1															
Trimethoprim	Trimethoprim	10	2	1						1								1									
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0															2								

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b>		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		2						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin			1				
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Typhimurium		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																									
		Isolates out of a monitoring program (yes/no)																									
		Number of isolates available in the laboratory																									
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	12	13	8	2				2	2	2		4					1									
	Kanamycin	13	13	4	2				2				4					2	1	1				1			
	Neomycin		0	0																							
	Streptomycin	11	13	11	9				2				2														
Amphenicols	Chloramphenicol	12	13	0											3			2	5	1	2						
	Florfenicol		0	0																							
Cephalosporins	3rd generation cephalosporins		0	0																							
	Cefotaxim	14	13	0										2	1		2	2	1		1	2	1	1			
	Ceftazidim	14	13	0										1		3	2				1		2	2			
Fluoroquinolones	Ciprofloxacin	15	13	0												1	3	3							2	1	
	Enrofloxacin	16	13	2	2												1	2		1	3	2	1		1		
Penicillins	Ampicillin	13	13	11	10			1																1	1		
Quinolones	Nalidixic acid	13	13	1									1	4	2	2			1	2	1						
Sulfonamides	Sulfonamide	12	13	11	6		2	3																2			
Tetracyclines	Tetracyclin	14	13	13	7		2	3	1																		
Trimethoprim	Trimethoprim	10	13	0											2		2	2	3	2	1			1			
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	13	0											4	3	2	2	2								

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
Isolates out of a monitoring program (yes/no)		yes						
Number of isolates available in the laboratory		13						
<b>Antimicrobials:</b>		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim				1		1	
Fluoroquinolones	Ciprofloxacin	1			1		1	
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
<b>Antimicrobials:</b>		Number of isolates available in the laboratory																										
		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	9	1							1		3	1	3	1												
	Kanamycin	13	9	2									2	4		2	1											
	Neomycin		0	0																								
	Streptomycin	11	9	9	5			1	3																			
Amphenicols	Chloramphenicol	12	9	5	3			2										1	3									
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	9	0										1	2		1								2	1	1	
	Ceftazidim	14	9	3									3			2								2	1	1		
Fluoroquinolones	Ciprofloxacin	15	9	0															2			1	1	1	1	3		
	Enrofloxacin	16	9	0														1		2	1		3		2			
Penicillins	Ampicillin	13	9	3	3									3	2													
Quinolones	Nalidixic acid	13	9	1						1				1	3						2	2						
Sulfonamides	Sulfonamide	12	9	9	7			2																				
Tetracyclines	Tetracyclin	14	9	7	1			2						4	2													
Trimethoprim	Trimethoprim	10	9	0													1		2	2					1	1	2	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	9	0										1	2	1	1			2				1	1			

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim		1					
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin			1				
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in meat preparation - Meat from turkey - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory		Meat from turkey - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
<b>Antimicrobials:</b>		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
		Gentamicin	12	1	0								1															
Aminoglycosides	Kanamycin	13	1	0																								
	Neomycin		0	0																								
	Streptomycin	11	1	1				1																				
	Chloramphenicol	12	1	1	1																							
Amphenicols	Florfenicol		0	0																								
	3rd generation cephalosporins		0	0																								
Cephalosporins	Cefotaxim	14	1	0																								
	Ceftazidim	14	1	0																								
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								1
Penicillins	Ampicillin	13	1	1	1																							
Quinolones	Nalidixic acid	13	1	0																								
Sulfonamides	Sulfonamide	12	1	1																								
Tetracyclines	Tetracyclin	14	1	1																								
Trimethoprim	Trimethoprim	10	1	0																								1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																								1

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in meat preparation - Meat from turkey - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b>		Meat from turkey - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim						1	
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin	1						
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b> Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling																										
		yes																										
		20																										
		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	20	4	1					1	2	5	9			2												
	Kanamycin	13	20	7	1			1	1		2	2	13															
	Neomycin		0	0																								
	Streptomycin	11	20	16	10			4		2	2	2																
Amphenicols	Chloramphenicol	12	20	10	5		2	3						1		2	1	1	1	2	1	1						
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	20	9							2	2	5				1	1	3	1	1			1	1	1	1	
	Ceftazidim	14	20	17			2	2	1	3	4	5				1	1	1										
Fluoroquinolones	Ciprofloxacin	15	20	2				1		1							3	3	2	1	1			1		3		
	Enrofloxacin	16	20	0												1	4	1	5			3	1		2	3		
Penicillins	Ampicillin	13	20	19	12		1	1		1	2	2						1										
Quinolones	Nalidixic acid	13	20	1	1								10	1	1	1	1	1	1	1	1	1						
Sulfonamides	Sulfonamide	12	20	14	10		1		1		2	1	1				1	1	1						1			
Tetracyclines	Tetracyclin	14	20	16	5	1	1	5	1	1			1	1	1	1	2											
Trimethoprim	Trimethoprim	10	20	2	1				1				4	4	4	3	1								1		1	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	20	0												5	3	6	2			2	2					

**Table Antimicrobial susceptibility testing of *S. Typhimurium* in fresh - Meat from pig - chilled - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Typhimurium</b>		Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling						
Isolates out of a monitoring program (yes/no)		yes						
Number of isolates available in the laboratory		20						
<b>Antimicrobials:</b>		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin	1	1	1	1			
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Virchow* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Virchow		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling																											
		Isolates out of a monitoring program (yes/no)																											
		Number of isolates available in the laboratory																											
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Aminoglycosides	Gentamicin	12	2	0													2												
	Kanamycin	13	2	1													1												
	Neomycin		0	0																									
	Streptomycin	11	2	1				1				1																	
Amphenicols	Chloramphenicol	12	2	0																									
	Florfenicol		0	0																									
Cephalosporins	3rd generation cephalosporins		0	0																									
	Cefotaxim	14	2	0																									
	Ceftazidim	14	2	1					1																				
Fluoroquinolones	Ciprofloxacin	15	2	1													1												1
	Enrofloxacin	16	2	1								1																1	
Penicillins	Ampicillin	13	2	0															1										
Quinolones	Nalidixic acid	13	2	0																1									
Sulfonamides	Sulfonamide	12	2	2	2																								
Tetracyclines	Tetracyclin	14	2	1														1											
Trimethoprim	Trimethoprim	10	2	0														2											
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	2	0								1							1										

**Table Antimicrobial susceptibility testing of *S. Virchow* in meat preparation - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Virchow</b>		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
Isolates out of a monitoring program (yes/no)		yes						
Number of isolates available in the laboratory		2						
<b>Antimicrobials:</b>		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid		1					
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin			1				
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Virchow* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

S. Virchow		Meat from pig - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks																										
		yes																										
		1																										
	Antimicrobials:	break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	1	1					1																			
	Kanamycin	13	1	1					1																			
	Neomycin		0	0																								
	Streptomycin	11	1	1			1																					
Amphenicols	Chloramphenicol	12	1	0																								
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	1	0															1									
	Ceftazidim	14	1	0															1									
Fluoroquinolones	Ciprofloxacin	15	1	0																								
	Enrofloxacin	16	1	0																								
Penicillins	Ampicillin	13	1	0																1								
Quinolones	Nalidixic acid	13	1	1													1											
Sulfonamides	Sulfonamide	12	1	0															1									
Tetracyclines	Tetracyclin	14	1	0																1								
Trimethoprim	Trimethoprim	10	1	0											1													
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0																1								

**Table Antimicrobial susceptibility testing of *S. Virchow* in carcass - Meat from pig - chilled - at slaughterhouse - animal sample - carcass swabs - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b><i>S. Virchow</i></b>		Meat from pig - carcass - chilled - - carcass swabs - Surveillance - HACCP and own checks						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		1						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Virchow* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Virchow</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling																										
		Isolates out of a monitoring program (yes/no)																										
Antimicrobials:		Number of isolates available in the laboratory																										
		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	12	5	2					1		1	1	1	1														
	Kanamycin	13	5	4						1	2	1						1										
	Neomycin		0	0																								
	Streptomycin	11	5	4			3		1								1											
Amphenicols	Chloramphenicol	12	5	0																1	3			1				
	Florfenicol		0	0																								
Cephalosporins	3rd generation cephalosporins		0	0																								
	Cefotaxim	14	5	0															1	1	2				1			
	Ceftazidim	14	5	1				1								2		2										
Fluoroquinolones	Ciprofloxacin	15	5	0																3		1			1			
	Enrofloxacin	16	5	0															1	2		1		1				
Penicillins	Ampicillin	13	5	0														1	2	2								
Quinolones	Nalidixic acid	13	5	0													3	1			1							
Sulfonamides	Sulfonamide	12	5	0												2		2		1								
Tetracyclines	Tetracyclin	14	5	0												1	2			1	1							
Trimethoprim	Trimethoprim	10	5	1					1		1		2										1					
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	5	0															2	1	1			1				

**Table Antimicrobial susceptibility testing of *S. Virchow* in minced meat - Meat from bovine animals and pig - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Virchow</b>		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling						
		Isolates out of a monitoring program (yes/no)						
<b>Antimicrobials:</b>		Number of isolates available in the laboratory						
		5						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *S. Virchow* in fresh - Meat from broilers (*Gallus gallus*) - with skin - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

S. Virchow		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - with skin - at retail - domestic production - Surveillance - official controls - objective sampling																													
		yes																													
		5																													
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				
Aminoglycosides	Gentamicin	12	5	2			1				1		3																		
	Kanamycin	13	5	4	1		1				1	1			1																
	Neomycin		0	0																											
	Streptomycin	11	5	5	4		1																								
Amphenicols	Chloramphenicol	12	5	2			1	1								2	1														
	Florfenicol		0	0																											
Cephalosporins	3rd generation cephalosporins		0	0																											
	Cefotaxim	14	5	0													1		1	2		1									
	Ceftazidim	14	5	2				2								1	1		1												
Fluoroquinolones	Ciprofloxacin	15	5	5	1						1	1	2																		
	Enrofloxacin	16	5	5	1		1		1		1		1																		
Penicillins	Ampicillin	13	5	1							1			3					1												
Quinolones	Nalidixic acid	13	5	5	5																										
Sulfonamides	Sulfonamide	12	5	5	2			3																							
Tetracyclines	Tetracyclin	14	5	5	5																										
Trimethoprim	Trimethoprim	10	5	3				3				1										1									
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	5	2	2						1			1		1															

**Table Antimicrobial susceptibility testing of *S. Virchow* in fresh - Meat from broilers (*Gallus gallus*) - with skin - at retail - domestic production - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b>S. Virchow</b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory		Meat from broilers ( <i>Gallus gallus</i> ) - fresh - with skin - at retail - domestic production - Surveillance - official controls - objective sampling						
		yes						
		5						
		29	30	31	32	33	34	>=35
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

Table Antimicrobial susceptibility testing of *Salmonella* spp. in food

<b>Salmonella spp.</b>		Meat from sheep - fresh - chilled - meat - Surveillance - official controls - objective sampling		Dairy products (excluding cheeses) - ice -cream - at catering - Surveillance - official controls - objective sampling		Meat from bovine animals - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks		Meat from pig - meat preparation - intended to be eaten cooked - at retail - chilled - carcass swabs - Surveillance - HACCP and own checks		Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		Meat from pig - minced meat - intended to be eaten cooked - at processing plant - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks					
		Isolates out of a monitoring program (yes/no)		yes		yes		yes		yes		yes		yes		yes		yes		yes		yes					
Number of isolates available in the laboratory		1		1		3		25		3		2		15		13		10		4		1		1		4	
<b>Antimicrobials:</b>		N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n
Aminoglycosides	Gentamicin	1	0	1	0	3	0	25	5	3	0	2	0	15	9	13	3	10	3	4	1	1	1	1	1	4	1
	Kanamycin	1	0	1	0	3	1	25	9	3	2	2	1	15	5	13	6	10	4	4	1	1	1	1	0	4	2
	Streptomycin	1	1	1	0	3	3	25	24	3	2	2	1	15	13	13	7	10	8	4	4	1	1	1	1	4	3
Amphenicols	Chloramphenicol	1	0	1	0	3	0	25	5	3	0	2	0	15	0	13	0	10	1	4	1	1	0	1	0	4	0
Cephalosporins	Cefotaxim	1	0	1	0	3	0	25	0	3	0	2	0	15	0	13	0	10	0	4	0	1	1	0	4	0	
	Ceftazidim	1	1	1	1	3	1	25	12	3	1	2	1	15	1	13	6	10	7	4	0	1	1	0	4	1	
Fluoroquinolones	Ciprofloxacin	1	0	1	0	3	0	25	2	3	1	2	0	15	0	13	0	10	0	4	0	1	0	1	0	4	2
	Enrofloxacin	1	1	1	0	3	0	25	0	3	1	2	1	15	2	13	0	10	1	4	0	1	0	1	0	4	0
Fully sensitive	Fully sensitive	1	0	1	0	3	0	25	0	3	0	2	0	15	0	13	0	10	0	4	0	1	0	1	0	4	0
Penicillins	Ampicillin	1	0	1	0	3	0	25	6	3	0	2	1	15	11	13	1	10	1	4	1	1	0	1	0	4	0
Quinolones	Nalidixic acid	1	0	1	0	3	0	25	2	3	0	2	0	15	1	13	1	10	1	4	1	1	0	1	0	4	0
Resistant to 1 antimicrobial	Resistant to 1 antimicrobial	1	0	1	0	3	0	25	0	3	0	2	0	15	0	13	0	10	0	4	0	1	0	1	0	4	0
Resistant to 2 antimicrobials	Resistant to 2 antimicrobials	1	0	1	1	3	1	25	1	3	1	2	0	15	0	13	0	10	0	4	2	1	0	1	1	4	0
Resistant to 3 antimicrobials	Resistant to 3 antimicrobials	1	1	1	0	3	0	25	1	3	0	2	1	15	0	13	0	10	3	4	0	1	0	1	0	4	0

Table Antimicrobial susceptibility testing of *Salmonella* spp. in food

Salmonella spp.		Meat from sheep - fresh - chilled - meat - Surveillance - official controls - objective sampling		Dairy products (excluding cheeses) - ice -cream - at catering - Surveillance - official controls - objective sampling		Meat from bovine animals - carcass - chilled - carcass swabs - Surveillance - HACCP and own checks		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		Meat from pig - meat preparation - intended to be eaten cooked - at retail - chilled - carcass swabs - Surveillance - HACCP and own checks		Meat from pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling		Meat from pig - minced meat - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks				
		Isolates out of a monitoring program (yes/no)		Number of isolates available in the laboratory		yes		yes		yes		yes		yes		yes		yes		yes		yes		yes				
Antimicrobials:		N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	N	n	
Resistant to 4 antimicrobials	Resistant to 4 antimicrobials	1	0	1	0	3	2	25	4	3	0	2	0	15	0	13	5	10	1	4	1	1	0	1	0	4	2	
Resistant to >4 antimicrobials	Resistant to >4 antimicrobials	1	0	1	0	3	0	25	19	3	2	2	1	15	15	13	8	10	6	4	1	1	1	0	1	0	4	2
Sulfonamides	Sulfonamide	1	0	1	1	3	3	25	15	3	2	2	1	15	11	13	4	10	4	4	1	1	1	1	0	4	3	
Tetracyclines	Tetracyclin	1	0	1	0	3	0	25	11	3	1	2	1	15	14	13	2	10	3	4	3	1	1	1	0	4	2	
Trimethoprim	Trimethoprim	1	0	1	0	3	0	25	0	3	0	2	1	15	0	13	2	10	1	4	1	1	1	1	0	4	0	
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	1	0	1	0	3	0	25	2	3	0	2	0	15	0	13	1	10	0	4	0	1	0	1	0	4	0	

Table Antimicrobial susceptibility testing of *Salmonella* spp. in food

<b>Salmonella</b> spp.		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from broilers (Gallus gallus) - carcass - neck skin - Surveillance - HACCP and own checks	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	Meat from bovine animals	Meat from pig	Meat from broilers (Gallus gallus)	Meat from other poultry species	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	Meat from broilers (Gallus gallus) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling	
		Isolates out of a monitoring program (yes/no)	Number of isolates available in the laboratory	yes	yes	yes	yes	yes	yes	yes	yes	yes	
<b>Antimicrobials:</b>		3	1	1	1	3	10	43	22	1	15	2	
		N	n	N	n	N	n	N	n	N	n	N	n
Aminoglycosides	Gentamicin	3	0	1	0	1	0	1	3	10	3	43	11
	Kanamycin	3	0	1	1	1	0	1	0	10	3	43	13
	Streptomycin	3	3	1	1	1	0	1	1	2	5	43	31
Amphenicols	Chloramphenicol	3	0	1	1	1	0	1	0	10	2	43	12
Cephalosporins	Cefotaxim	3	0	1	0	1	0	1	0	10	0	43	11
	Ceftazidim	3	1	1	0	1	1	1	0	10	7	43	26
Fluoroquinolones	Ciprofloxacin	3	0	1	0	1	0	1	1	2	0	43	3
	Enrofloxacin	3	0	1	1	1	0	1	1	10	0	43	0
Fully sensitive	Fully sensitive	3	0	1	0	1	0	1	0	10	0	43	0
Penicillins	Ampicillin	3	0	1	0	1	0	1	0	10	1	43	21
Quinolones	Nalidixic acid	3	0	1	0	1	0	1	1	3	10	0	43
Resistant to 1 antimicrobial	Resistant to 1 antimicrobial	3	0	1	0	1	0	1	0	0	10	0	43
Resistant to 2 antimicrobials	Resistant to 2 antimicrobials	3	1	1	0	1	1	1	0	1	10	1	43
Resistant to 3 antimicrobials	Resistant to 3 antimicrobials	3	0	1	1	1	0	1	0	0	10	3	43
Resistant to 4 antimicrobials	Resistant to 4 antimicrobials	3	0	1	0	1	0	1	0	0	10	0	43
Resistant to >4 antimicrobials	Resistant to >4 antimicrobials	3	2	1	0	1	0	1	1	2	10	6	43

Table Antimicrobial susceptibility testing of *Salmonella* spp. in food

<b>Salmonella</b> spp.		Meat from pig - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from pig - offal - liver - at retail - domestic production - Surveillance - official controls - objective sampling	Meat from broilers (Gallus gallus) - carcass - neck skin - Surveillance - HACCP and own checks	Meat from broilers (Gallus gallus) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks	Meat from broilers (Gallus gallus) - offal - liver - chilled - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	Meat from bovine animals	Meat from pig	Meat from broilers (Gallus gallus)	Meat from other poultry species	Meat from pig - carcass - chilled - - carcass swabs - Surveillance - official controls - objective sampling	Meat from broilers (Gallus gallus) - offal - liver - frozen - at retail - imported - Surveillance - official controls - objective sampling	
		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Isolates out of a monitoring program (yes/no)		yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	
Number of isolates available in the laboratory		3	1	1	1	3	10	43	22	1	15	2	
<b>Antimicrobials:</b>		N	n	N	n	N	n	N	n	N	n	N	n
Sulfonamides	Sulfonamide	3	2	1	1	1	1	3	2	10	3	43	23
Tetracyclines	Tetracyclin	3	2	1	0	1	0	1	0	10	2	43	27
Trimethoprim	Trimethoprim	3	2	1	0	1	0	3	0	10	2	43	5
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	3	2	1	0	1	0	1	0	10	2	43	2

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* in Meat from broilers (*Gallus gallus*) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b><i>S. enterica</i> subsp. <i>enterica</i></b>  Isolates out of a monitoring program (yes/no)  Number of isolates available in the laboratory		Meat from broilers ( <i>Gallus gallus</i> ) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks																										
		yes																										
		1																										
<b>Antimicrobials:</b>		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
		Gentamicin	12	1	0									1														
Aminoglycosides	Kanamycin	13	1	0										1														
	Neomycin		0	0																								
	Streptomycin	11	1	1				1																				
	Chloramphenicol	12	1	0														1										
Amphenicols	Florfenicol		0	0																								
	3rd generation cephalosporins		0	0																								
Cephalosporins	Cefotaxim	14	1	0																				1				
	Ceftazidim	14	1	0																								
Fluoroquinolones	Ciprofloxacin	15	1	1										1														
	Enrofloxacin	16	1	1									1															
Penicillins	Ampicillin	13	1	0																				1				
Quinolones	Nalidixic acid	13	1	1	1																							
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	0																								
Trimethoprim	Trimethoprim	10	1	0										1														
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0									1															

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* in Meat from broilers (*Gallus gallus*) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks - quantitative data [Diffusion method]**

<b><i>S. enterica</i> subsp. <i>enterica</i></b>		Meat from broilers ( <i>Gallus gallus</i> ) - mechanically separated meat (MSM) - at processing plant - domestic production - Surveillance - HACCP and own checks						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim	1						
<b>Fluoroquinolones</b>	Ciprofloxacin							
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>				1			
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* in intended to be eaten cooked - meat preparation - Meat from pig - chilled - at retail - imported - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b><i>S. enterica</i> subsp. <i>enterica</i></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 - chilled - at retail - imported - Surveillance - official controls - objective sampling																										
		yes																										
		1																										
<b>Antimicrobials:</b>		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
		Gentamicin	12	1	1					1																		
Aminoglycosides	Kanamycin	13	1	1			1																					
	Neomycin		0	0																								
	Streptomycin	11	1	1	1																							
	Chloramphenicol	12	1	0																								
Amphenicols	Florfenicol		0	0																								
	3rd generation cephalosporins		0	0																								
Cephalosporins	Cefotaxim	14	1	1							1																	
	Ceftazidim	14	1	1												1												
Fluoroquinolones	Ciprofloxacin	15	1	0																					1			
	Enrofloxacin	16	1	0																					1			
Penicillins	Ampicillin	13	1	0																								1
Quinolones	Nalidixic acid	13	1	0														1										
Sulfonamides	Sulfonamide	12	1	1	1																							
Tetracyclines	Tetracyclin	14	1	1	1																							
Trimethoprim	Trimethoprim	10	1	1				1																				
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	1	0															1									

**Table Antimicrobial susceptibility testing of *S. enterica* subsp. *enterica* in intended to be eaten cooked - meat preparation - Meat from pig - chilled - at retail - imported - Surveillance - official controls - objective sampling - quantitative data [Diffusion method]**

<b><i>S. enterica</i> subsp. <i>enterica</i></b>		Meat from pig - meat preparation - intended to be eaten cooked - chilled - at retail - imported - Surveillance - official controls - objective sampling						
		yes						
<b>Antimicrobials:</b>		1						
		29	30	31	32	33	34	>=35
<b>Aminoglycosides</b>	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
<b>Amphenicols</b>	Chloramphenicol							
	Florfenicol							
<b>Cephalosporins</b>	3rd generation cephalosporins							
	Cefotaxim							
	Ceftazidim							
<b>Fluoroquinolones</b>	Ciprofloxacin							
	Enrofloxacin							
<b>Penicillins</b>	<b>Ampicillin</b>							
<b>Quinolones</b>	<b>Nalidixic acid</b>							
<b>Sulfonamides</b>	<b>Sulfonamide</b>							
<b>Tetracyclines</b>	<b>Tetracyclin</b>							
<b>Trimethoprim</b>	<b>Trimethoprim</b>							
<b>Trimethoprim + sulfonamides</b>	<b>Trimethoprim + sulfonamides</b>							

**Table Breakpoints for antibiotic resistance testing**

Test Method Used		Standards used for testing	
Disc diffusion	●		
Agar dilution	○		
Broth dilution	○		
E-test	○		

		Standard for breakpoint	Breakpoint concentration (microg/ml)			Range tested concentration (microg/ml)		Disk content	Breakpoint Zone diameter (mm)		
			Susceptible <=	Intermediate	Resistant >	lowest	highest		Susceptible >=	Intermediate	Resistant <=
Aminoglycosides	Gentamicin	NCCLS						10	15	13	11
	Streptomycin	NCCLS						10	15	13	11
Amphenicols	Chloramphenicol	NCCLS						30	18	15	12
	Florfenicol	NCCLS						30	19	17	14
Cephalosporins	3rd generation cephalosporins	NCCLS						30	23	18	14
Fluoroquinolones	Ciprofloxacin	NCCLS						5	21	18	15
	Enrofloxacin	NCCLS						5	23	19	16
Penicillins	Ampicillin	NCCLS						10	17	15	13
Quinolones	Nalidixic acid	NCCLS						30	19	16	13
Sulfonamides	Sulfonamide	NCCLS						300	17	15	12
Tetracyclines	Tetracyclin	NCCLS						30	15	13	11
Trimethoprim	Trimethoprim	NCCLS						5	16	13	10
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	NCCLS						25	16	13	10

**Table Breakpoints for antibiotic resistance testing**

Test Method Used	
Disc diffusion	<input checked="" type="radio"/>
Agar dilution	<input type="radio"/>
Broth dilution	<input type="radio"/>
E-test	<input type="radio"/>

Standards used for testing
NCCLS

		Standard for breakpoint	Breakpoint concentration (microg/ml)			Range tested concentration (microg/ml)		Disk content	Breakpoint Zone diameter (mm)		
			Susceptible <=	Intermediate	Resistant >	lowest	highest		Susceptible >=	Intermediate	Resistant <=
Aminoglycosides	Gentamicin							10	15		12
	Kanamycin							30	18		13
	Streptomycin							10	15		11
Amphenicols	Chloramphenicol							30	18		12
Cephalosporins	Cefotaxim							30	23		14
	Ceftazidim							30	18		14
Fluoroquinolones	Ciprofloxacin							500	21		15
	Enrofloxacin							5	20		16
Penicillins	Ampicillin							10	17		13
Quinolones	Nalidixic acid							30	19		13
Sulfonamides	Sulfonamide							300	17		12
Tetracyclines	Tetracyclin							30	19		14
Trimethoprim	Trimethoprim							30	16		10
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							25	16		10

## **2.2 CAMPYLOBACTERIOSIS**

### **2.2.1 General evaluation of the national situation**

### **2.2.2 Campylobacteriosis in humans**

### **2.2.3 Campylobacter in foodstuffs**

#### **A. Thermophilic Campylobacter in Broiler meat and products thereof**

##### **Monitoring system**

##### **Sampling strategy**

##### **At slaughterhouse and cutting plant**

According with Romanian National Surveillance Programme for 2008.

##### **At meat processing plant**

According with Romanian National Surveillance Programme for 2008.

##### **At retail**

According with Romanian National Surveillance Programme for 2008.

##### **Definition of positive finding**

##### **At slaughterhouse and cutting plant**

According to the Romanian Surveillance Programme our national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated a sample is positive for Campylobacter in the moment of detection.

##### **At meat processing plant**

According to the Romanian Surveillance Programme our national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated a sample is positive for Campylobacter in the moment of detection.

##### **At retail**

According to the Romanian Surveillance Programme our national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated a sample is positive for Campylobacter in the moment of detection.

**Diagnostic/analytical methods used**

**At slaughterhouse and cutting plant**

SR EN ISO 10272 - 1 /2006, SR ISO/TS 10272 - 2/2006

**At meat processing plant**

SR EN ISO 10272 - 1 /2006, SR ISO/TS 10272 - 2/2006

**At retail**

SR EN ISO 10272 - 1 /2006, SR ISO/TS 10272 - 2/2006

**Control program/mechanisms**

**The control program/strategies in place**

The Romanian Control Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated.

**Notification system in place**

Rapid Alert System for Food and Feed.

**Results of the investigation**

From meat of broilers (*Gallus gallus*)- fresh-neck skin - Survey - EU baseline survey were tested 408 units from which 257 are positive for thermophilic *Campylobacter* spp.

- *Campylobacter coli* 92,
- *Campylobacter jejuni* 161,
- *Campylobacter lari* 4.

**Table Campylobacter in poultry meat**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for thermophilic <i>Campylobacter</i> spp.	<i>C. coli</i>	<i>C. jejuni</i>	<i>C. lari</i>	<i>C. upsaliensis</i>	Thermophilic <i>C. Campylobacter</i> spp., unspecified
Meat from broilers ( <i>Gallus gallus</i> ) - - neck skin - Surveillance - HACCP and own checks	SVFSL	batch	10	42	0					
Meat from broilers ( <i>Gallus gallus</i> ) - fresh - - neck skin - Survey - EU baseline survey	IHPV	batch	10	408	257	92	161	4		
Meat from broilers ( <i>Gallus gallus</i> ) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	10	72	0					

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

IHPV: Institute of Hygiene and Veterinary Public Health, which is the National Reference Laboratory for *Campylobacter*.

**Table Campylobacter in other food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for thermophilic <i>Campylobacter</i> spp.	<i>C. coli</i>	<i>C. jejuni</i>	<i>C. lari</i>	<i>C. upsaliensis</i>	Thermophilic <i>Campylobacter</i> spp., unspecified
Meat from bovine animals - - meat - Surveillance - HACCP and own checks	SVFSL	batch	10	33	0					
Meat from bovine animals - fresh - - meat - Surveillance - official controls - objective sampling	SVFSL	batch	10	495	0					
Meat from bovine animals - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	10	335	0					
Meat from bovine animals - fresh - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	10	2	0					
Meat from other animal species or not specified - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	10	9	0					
Meat from sheep - fresh - - meat - Surveillance - official controls - objective sampling	SVFSL	batch	10	5	0					

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## 2.2.4 Campylobacter in animals

**Table Campylobacter in animals**

	Source of information	Sampling unit	Units tested	Total units positive for thermophilic Campylobacter spp.	C. coli	C. jejuni	C. lari	C. upsaliensis	Thermophilic Campylobacter spp., unspecified
<b>Gallus gallus (fowl) - broilers - at slaughterhouse - Survey - EU baseline survey</b>		slaughter	408	346	119	227	0	0	0

**Footnote:**

Total samples tested 408

Positive samples with C. jejuni 197

Positive samples with C. coli 89

Positive samples with C. jejuni and C. coli 30

## 2.2.5 Antimicrobial resistance in *Campylobacter* isolates

**Table Antimicrobial susceptibility testing of *C. coli* in *Gallus gallus* (fowl) - quantitative data [Dilution method]**

C. coli		Gallus gallus (fowl)																						
		Isolates out of a monitoring program (yes/no)																						
		Number of isolates available in the laboratory																						
Antimicrobials:		94																						
		break points	N	n	<=0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048
																								lowest
Aminoglycosides	Gentamicin	1	45	8						2	19	16	7			1								
	Streptomycin	2	45	11			2				5	17	10	5	1	1		3		1				
Fluoroquinolones	Ciprofloxacin	1	83	69				1	7	3	3			1	4		64							
Macrolides	Erythromycin	4	45	4					2	10	6	9	9	5	1							3		
Penicillins	Ampicillin		0	0																				
Quinolones	Nalidixic acid		0	0																				
Tetracyclines	Tetracyclin	2	53	34			2	5	7	2	1		2	1	1	19	8	3	2					

**Table Antimicrobial susceptibility testing of *C. jejuni* in *Gallus gallus* (fowl) - at farm - Monitoring - quantitative data [Dilution method]**

<b><i>C. jejuni</i></b>		Gallus gallus (fowl) - at farm - Monitoring																								
		Isolates out of a monitoring program (yes/no)																								
		Number of isolates available in the laboratory																								
		145																								
<b>Antimicrobials:</b>		break points	N	n	<=0.008	0.015	0.03	0.06	0.12	0.25	0.5	1	2	4	8	16	32	64	128	256	512	1024	2048	>2048	lowest	highest
Aminoglycosides	<b>Gentamicin</b>	1	79	10					2	5	23	39	6	3		1										
	<b>Streptomycin</b>	2	0	0																						
Fluoroquinolones	<b>Ciprofloxacin</b>	1	134	104			1	5	14	7	3				9	2	93									
Macrolides	<b>Erythromycin</b>	4	82	3			2		2	5	17	46	5	2	2			1								
Penicillins	<b>Ampicillin</b>		0	0																						
Quinolones	<b>Nalidixic acid</b>		0	0																						
Tetracyclines	<b>Tetracyclin</b>	2	86	34			2	15	26	3	2	1	3	3	1	13	15	1	1							

**Table Antimicrobial susceptibility testing of *Campylobacter* in animals**

<b><i>Campylobacter</i> spp., unspecified</b>		<b>Gallus gallus (fowl)</b>		<b>Cattle (bovine animals)</b>		<b>Pigs</b>	
		yes					
		165					
		N	n	N	n	N	n
Aminoglycosides	<b>Gentamicin</b>	165	48				
Fluoroquinolones	<b>Ciprofloxacin</b>	165	110				
Fully sensitive	<b>Fully sensitive</b>	165	22				
Macrolides	<b>Erythromycin</b>	165	19				
Resistant to 1 antimicrobial	<b>Resistant to 1 antimicrobial</b>	165	52				
Resistant to 2 antimicrobials	<b>Resistant to 2 antimicrobials</b>	165	46				
Resistant to 3 antimicrobials	<b>Resistant to 3 antimicrobials</b>	165	22				
Resistant to 4 antimicrobials	<b>Resistant to 4 antimicrobials</b>	165	19				
Resistant to >4 antimicrobials	<b>Resistant to &gt;4 antimicrobials</b>	165	2				
Tetracyclines	<b>Tetracyclin</b>	165	49				

**Footnote:**

all the date are for *Campylobacter jejuni*

**Table Breakpoints used for antimicrobial susceptibility testing**

Test Method Used	
Disc diffusion	<input type="radio"/>
Agar dilution	<input type="radio"/>
Broth dilution	<input type="radio"/>
E-test	<input checked="" type="radio"/>

Standards used for testing
EFSA_Dec_2007/516/EC

		Standard for breakpoint	Breakpoint concentration (microg/ml)			Range tested concentration (microg/ml)		Disk content	Breakpoint Zone diameter (mm)		
			Susceptible <=	Intermediate	Resistant >	lowest	highest		microg	Susceptible >=	Intermediate
Aminoglycosides	Gentamicin	EFSA Dec 2007/516/EC			1						
	Streptomycin				2						
Fluoroquinolones	Ciprofloxacin	EFSA Dec. 2007/516/EC			1						
Macrolides	Erythromycin	EFSA Dec. 2007/516/EC			4						
Tetracyclines	Tetracyclin	EFSA Dec. 2007/516/EC			2						

**Footnote:**

all the date are for *Campylobacter jejuni*;

Breakpoints for *Campylobacter coli* : Tetracycline 2 µg/ml

Ciprofloxacin 1 µg/ml

Gentamicin 2 µg/ml

Erythromycin 16 µg/ml

streptomycin 4 µg/ml

## **2.3 LISTERIOSIS**

### **2.3.1 General evaluation of the national situation**

#### **A. Listeriosis general evaluation**

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

In 2008 were isolated from meat, meat products, meat preparation, minced meat, live echinodermis, tunicates and gastropods 169 strains of *Listeria* spp:

- 2 live echinodermis, tunicates and gastropods;
- 34 fresh meat from bovine;
- 57 meat preparation (pig and bovine);
- 6 meat products (pig and bovine);
- 7 minced meat (pig and bovine);
- 61 fresh meat from pig;
- 2 meat preparation from turkey.

## 2.3.2 Listeriosis in humans

## 2.3.3 Listeria in foodstuffs

**Table Listeria monocytogenes in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Cheeses made from cows' milk - hard - made from pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	195	0	195	0			
Cheeses made from cows' milk - hard - made from pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	58	0	58	0			
Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	36	0	36	0			
Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0	4	0			
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	30	0	30	0			
Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	26	0	26	0			
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	214	0	214	0			

**Table Listeria monocytogenes in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	221	0	221	0			
Cheeses made from goats' milk - hard - made from pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0	3	0			
Cheeses made from goats' milk - hard - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0	2	0			
Cheeses made from goats' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0	2	0			
Cheeses made from sheep's milk - hard - made from pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0	5	0			
Cheeses made from sheep's milk - hard - made from pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	21	0	21	0			
Cheeses made from sheep's milk - hard - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0	9	0			
Cheeses made from sheep's milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0	2	0			
Cheeses made from sheep's milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0	3	0			

**Table Listeria monocytogenes in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Cheeses made from sheep's milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	22	0	22	0			
Dairy products (excluding cheeses) - butter - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0	3	0			
Dairy products (excluding cheeses) - butter - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	22	0	22	0			
Dairy products (excluding cheeses) - cream - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	60	0	60	0			
Dairy products (excluding cheeses) - cream - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	57	0	57	0			
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0	13	0			
Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0	4	0			
Milk, cows' - pasteurised milk - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	29	0	29	0			
Milk, cows' - pasteurised milk - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	42	0	42	0			
Milk, cows' - raw - intended for direct human consumption - milk - Surveillance - official controls - objective sampling	SVFSL	batch	25	729	0	729	0			

**Table Listeria monocytogenes in milk and dairy products**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Milk, cows' - raw milk for manufacture - intended for manufacture of pasteurised/UHT products - - milk - Surveillance - official controls - objective sampling	SVFSL	batch	25	1152	0	1152	0			
Milk, cows' - raw milk for manufacture - intended for manufacture of pasteurised/UHT products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	897	0	897	0			
Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	2685	0	2685	0			
Milk, goats' - raw - intended for direct human consumption - - milk - Surveillance - official controls - objective sampling	SVFSL	batch	25	6	0	6	0			
Milk, goats' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0	10	0			
Milk, sheep's - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	16	0	16	0			

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Bakery products - cakes - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	145	0	145	0			
Bakery products - cakes - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	36	0	36	0			
Bakery products - cakes - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0	13	0			
Crustaceans - unspecified - cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	1	0	1	0			
Crustaceans - unspecified - raw - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0	2	0			
Egg products - dried - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0	7	0			
Eggs - raw material (liquid egg) for egg products - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	5	0	5	0			
Eggs - raw material (liquid egg) for egg products - at catering - Surveillance - official controls - selective sampling	SVFSL	batch	25	5	0	5	0			
Fish - raw - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	147	0	147	0			
Fish - raw - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	85	0	85	0			
Fish - raw - frozen - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	71	0	71	0			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Fish - smoked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	18	0	18	0			
Fish - smoked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	7	0	7	0			
Fish - smoked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0	10	0			
Fish - unspecified - at processing plant - Surveillance - HACCP and own checks	SVFSL	batch	25	101	0	101	0			
Fishery products, unspecified - non-ready-to-eat - chilled - at retail - domestic production - Surveillance - official controls	SVFSL	batch	25	75	0	75	0			
Fishery products, unspecified - raw - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	11	0	11	0			
Fishery products, unspecified - raw - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	7	0	7	0			
Fishery products, unspecified - raw - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0	3	0			
Foodstuffs intended for special nutritional uses - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0	13	0			
Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0	2	0			
Infant formula - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0	13	0			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Live bivalve molluscs - unspecified - depurated - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0	4	0			
Live echinoderms, tunics and gastropods - at processing plant - Surveillance - HACCP and own checks (sampling from imported batch)	SVFSL	batch	25	28	2	28	2			
Live echinoderms, tunics and gastropods - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0	9	0			
Meat from bovine animals - fresh - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	344	18	344	18			
Meat from bovine animals - fresh - chilled - meat - Surveillance - official controls - objective sampling	SVFSL	batch	25	893	14	893	14			
Meat from bovine animals - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	359	2	359	2			
Meat from bovine animals - fresh - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	81	0	81	0			
Meat from bovine animals - fresh - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	330	0	330	0			
Meat from bovine animals - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	20	0	20	0			
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	43	0	43	0			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	7	0	7	0			
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	24	0	24	0			
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	266	4	266	4			
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls	SVFSL	batch	25	662	30	662	30			
Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	249	23	249	23			
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	216	6	216	6			
Meat from bovine animals and pig - meat products - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	60	0	60	0			
Meat from bovine animals and pig - meat products - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	30	0	30	0			
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	406	2	406	2			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	88	5	88	5			
Meat from broilers (Gallus gallus) - fresh - meat - Surveillance - official controls - objective sampling	SVFSL	batch	25	914	0	914	0			
Meat from broilers (Gallus gallus) - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	88	0	88	0			
Meat from broilers (Gallus gallus) - fresh - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	218	0	218	0			
Meat from broilers (Gallus gallus) - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0	10	0			
Meat from broilers (Gallus gallus) - fresh - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	60	0	60	0			
Meat from broilers (Gallus gallus) - fresh - frozen - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	32	0	32	0			
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	17	0	17	0			
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	98	0	98	0			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	65	0	65	0			
Meat from broilers ( <i>Gallus gallus</i> ) - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	79	0	79	0			
Meat from other animal species or not specified - fresh - meat - Surveillance - official controls - objective sampling	SVFSL	batch	25	21	0	21	0			
Meat from other animal species or not specified - fresh - at cutting plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0	4	0			
Meat from other animal species or not specified - fresh - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	10	0	10	0			
Meat from other animal species or not specified - fresh - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	16	0	16	0			
Meat from pig - fresh - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSL	batch	25	1355	18	1355	18			
Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	83	2	83	2			
Meat from pig - fresh - chilled - at cutting plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	422	11	422	11			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Meat from pig - fresh - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	877	8	877	8			
Meat from pig - fresh - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	574	22	574	22			
Meat from pig - meat products - cooked, ready-to-eat - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	68	0	68	0			
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	305	0	305	0			
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	253	0	253	0			
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	561	0	561	0			
Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	74	2	74	2			
Meat, mixed meat - meat products - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	41	0	41	0			
Meat, mixed meat - meat products - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	150	0	150	0			
Molluscan shellfish - cooked - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0	4	0			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Molluscan shellfish - cooked - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	12	0	12	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at catering - Surveillance - official controls - objective sampling	SVFSL	batch	25	1221	0	1221	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at catering - Surveillance - official controls - selective sampling	SVFSL	batch	25	18	0	18	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	63	0	63	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - chilled - at catering - Surveillance - HACCP and own checks	SVFSL	batch	25	400	0	400	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - chilled - at hospital or care home - Surveillance - official controls - objective sampling	SVFSL	batch	25	92	0	92	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	175	0	175	0			
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	236	0	236	0			

**Table Listeria monocytogenes in other foods**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for L.monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Other processed food products and prepared dishes - unspecified - ready-to-eat foods - frozen - at retail - imported - Surveillance - official controls - objective sampling	SVFSL	batch	25	9	0	9	0			
Roe - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	6	0	6	0			
Roe - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	4	0	4	0			

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## 2.3.4 Listeria in animals

**Table Listeria in animals**

	Source of information	Sampling unit	Units tested	Total units positive for Listeria spp.	L. monocytogenes	Listeria spp., unspecified
Pigs	CSVFSD			1	1	
Sheep	CSVFSD			3	3	

## 2.4 E. COLI INFECTIONS

### 2.4.1 General evaluation of the national situation

### 2.4.2 E. coli infections in humans

### 2.4.3 Escherichia coli, pathogenic in foodstuffs

**Table VT E. coli in food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Verotoxigenic E. coli (VTEC)	Verotoxigenic E. coli (VTEC)-VTEC O157	Verotoxigenic E. coli (VTEC)-VTEC non-O157	Verotoxigenic E. coli (VTEC)-VTEC, unspecified
Meat from bovine animals - fresh - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	472	0			
Meat from bovine animals - fresh - at retail - Surveillance - official controls - objective sampling	SVFSL	batch	25	239	0			
Meat from bovine animals - fresh - at slaughterhouse - Surveillance - official controls - objective sampling	SVFSL	batch	25	1082	0			
Meat from bovine animals - meat preparation - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	188	0			
Meat from bovine animals - meat preparation - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	179	0			
Meat from bovine animals - meat preparation - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	159	0			

**Table VT E. coli in food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Verotoxigenic E. coli (VTEC)	Verotoxigenic E. coli (VTEC)-VTEC O157	Verotoxigenic E. coli (VTEC)-VTEC non-O157	Verotoxigenic E. coli (VTEC)-VTEC, unspecified
Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0			
Meat from bovine animals - minced meat - intended to be eaten cooked - chilled - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	73	0			
Meat from bovine animals - minced meat - intended to be eaten cooked - chilled - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	19	0			
Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	155	0			
Meat from broilers (Gallus gallus) - fresh - at cutting plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	3	0			
Meat from pig - fresh - at cutting plant - domestic production - Surveillance - HACCP and own checks	SVFSL	batch	25	35	0			
Meat from sheep - fresh - at slaughterhouse - Surveillance - official controls - objective sampling	SVFSL	batch	25	2	0			
Vegetables - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	49	0			

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## **2.4.4 Escherichia coli, pathogenic in animals**

# **2.5 TUBERCULOSIS, MYCOBACTERIAL DISEASES**

## **2.5.1 General evaluation of the national situation**

## **2.5.2 Tuberculosis, mycobacterial diseases in humans**

## **2.5.3 Mycobacterium in animals**

### **A. Mycobacterium bovis in bovine animals**

#### **Monitoring system**

##### **Sampling strategy**

Tuberculosis is a disease obligatory notification in Romania. In Romania, programme of tuberculosis eradication complies with the provisions of Council Directive 64/432/EEC, transposed into Romanian. All animals slaughtered for human consumption are inspected post-mortem by an official veterinarian. Suspicious lesions are sampled for histological and bacteriological examination.

##### **Frequency of the sampling**

Compulsory tuberculin testing - all bovines and bufallos over six weeks old, from the whole territory of Romania, once per year, in the second quarter, with a single (unique) dermal test.

The animals with positive or inconclusive results to the single (unique) dermal test are compulsory re-tested after 42 days by the tuberculin comparative intradermal skin test. The programme of regular tuberculin testing is supplemented by veterinarian inspection of bovine during routine meat production at slaughterhouses. Animals with suspect lesions are traced back to the herd of origin, which then subjected to tuberculin check testing.

##### **Case definition**

###### **Definition of cases:**

A positive case is an animal with a positive result of the comparative skin test, in which *Mycobacterium bovis* or *M. tuberculosis* were isolated, or an animal with a positive post mortem examination result confirmed by a laboratory.

A holding is defined as infected if *Mycobacterium bovis* was isolated from an animal of the holding.

##### **Diagnostic/analytical methods used**

- single intradermal skin test used for routine testing;
- comparative intradermal skin test;
- inspection of carcasses at slaughterhouses;
- histological examination;
- bacteriological examination;
- Guinea-pigs.

## **Control program/mechanisms**

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

The monitoring of tuberculosis in bovine populations from Romania have been continuous and sustained, while control and eradication of disease was included in the Strategic programme for the surveillance, prevention and control of transmissible animal diseases from animals to humans, animal protection and environment, updated every year and approved through President Order of the National Sanitary Veterinary and Food Safety Authority, consisting in the intradermic tuberculin test, for detecting positive animals and the qualification of their health status.

Until 2002, were subjected to the tuberculin test all bovine animals over six months old and, beginning with 2003, all bovine over six weeks old, from the whole territory of Romania, twice per year with a single intradermal test. All animals given inconclusive or positive results have been subjected to an intradermal comparative test and, in case of positive result, have been slaughtered and organ samples collected for laboratory investigations.

In order to eradicate the tuberculosis, it is necessary to eliminate animals tested positively for the intradermal comparative test.

Following to actions carried out for the control and eradication of the tuberculosis some counties were register a continuous decrease of incidence of bovine tuberculosis.

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

Isolate the infected animals or animals suspected of infection, within the livestock;

- Put the livestock under official veterinary surveillance;
- All at least 6 weeks old bovine animals native of tuberculose positive herds should be tuberculin tested;
- Bovine animals could be taken out from the herd only for slaughter;
- Desinfection.

## **Results of the investigation**

See the table for the Romanian programme of tuberculosis eradication.

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

The annual incidence rate, which was 5.73% in 1990, was lower than 0.2% in 2008. The downward trend of the annual herd rates of prevalence and incidence confirms the favorable evolution of the situation.

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

Region	Total number of existing bovine		Officially free herds		Infected herds		Routine tuberculin testing		Number of tuberculin tests carried out before the introduction into the herds (Annex A(I)(2)(c) third indent (1) of Directive 64/432/EEC)	Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological examinations	Number of animals detected positive in bacteriological examination
	Herds	Animals	Number of herds	%	Number of herds	%	Interval between routine tuberculin tests	Number of animals tested			
<b>Whole country</b>	1065390	2328842	1054547	98.98	45	0	1	2208456	0	387	74
<b>Total</b>	1065390	2328842	1054547	98.98	45	0.0	1	2208456	0	387	74
<b>Total - 1</b>											

## 2.6 BRUCELLOSIS

### 2.6.1 General evaluation of the national situation

### 2.6.2 Brucellosis in humans

### 2.6.3 Brucella in animals

**Table Brucellosis in other animals**

	Source of information	Sampling unit	Units tested	Total units positive for Brucella spp.	B. abortus	B. melitensis	B. suis	Brucella spp., unspecified
Pigs	CSVFSD	holding	1	1			1	

**Footnote:**

CSVFSD: Canty Sanitary Veterinary and Food Safety Directorate.

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

Region	Total number of existing bovine		Officially free herds		Infected herds		Surveillance						Investigations of suspect cases								
	Herds	Animals	Number of herds	%	Number of herds	%	Serological tests			Examination of bulk milk			Information about			Epidemiological investigation					
							Number of bovine herds tested	Number of animals tested	Number of infected herds	Number of bovine herds tested	Number of animals or pools tested	Number of infected herds	Number of notified abortions whatever cause	Number of isolations of Brucella infection	Number of abortions due to Brucella abortus	Number of animals tested with serological blood tests	Number of suspended herds	Number of positive animals	Sero logically	BST	Number of animals examined microbiologically
Whole country	1065390	2328842	1054547	98.98	0	0	1704598									1704598					
Total	1065390	2328842	1054547	98.98	0	0.0	0	1704598	0	0	0	0	0	0	0	1704598	0	0	0	0	0
Total - 1																					

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

	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
Region														
Whole country		9466202	0	0				2029095	0					
Total	0	9466202	0	N.A.	0	N.A.	0	2029095	0	0	0	0	0	0
Total - 1														

**Footnote:**

We have not the number of herds.

## 2.7 YERSINIOSIS

### 2.7.1 General evaluation of the national situation

### 2.7.2 Yersiniosis in humans

### 2.7.3 Yersinia in foodstuffs

**Table Yersinia in food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Yersinia spp.	Y. enterocolitica	Yersinia spp., unspecified	Y. enterocolitic a-O:3	Y. enterocolitic a-O:9	Y. enterocolitic a-unspecified
Meat from pig - fresh - meat - Surveillance - official controls - objective sampling	SVFSL	batch	10	3093	0					
Meat from pig - minced meat - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	10	28	0					

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## 2.7.4 **Yersinia in animals**

### **A. Yersinia enterocolitica in pigs**

#### **Monitoring system**

#### **Sampling strategy**

#### **Animals at slaughter (herd based approach)**

In 2008 year were taken a total number of 3093 fresh pig meat at slaughterhouses, in the framework of National Surveillance Programme, approved by the Order no.

4/31.01.2008, in order to detect *Yersinia enterocolitica*.

There were not found positive samples for *Yersinia enterocolitica* in fresh pig meat.

#### **Frequency of the sampling**

#### **Animals at slaughter (herd based approach)**

Once a month

#### **Control program/mechanisms**

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

According to the National Surveillance Programme, approved by the Order of President of the National Sanitarz Veterinarz and Food Safetz Authority no. 4/31.01.2008, in order to detect *Yersinia enterocolitica*.

## **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**

In Romania there are not regions or holding official free of trichinellosis.

Trichinella spp is, generally in detected in pigs belong to the small holdings (individual backyards), bears and wild boars.

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

In 2008 year were detected 629 positive cases in fattening pigs raised under controlled housing conditions in integrated production system and 379 positive cases in fattening pigs not raised under controlled housing conditions in integrated production, 27 positive cases in wild boars and 22 positive cases in bears.

Beside 2007, in 2008 it was observed a small increase of percent of positive cases in bears (13.41% in 2008 and 12.70% in 2007) and an increase of percent of positive cases in the fattening pigs raised under controlled housing conditions in integrated production system (0.0243% in 2008 and 0.0036 in 2007).

For pigs raised in backyards and wild boars it was observed a decrease of percent of positive cases. In wild boars in 2008 the percent of positive cases was 0.37% and in 2007 0.71%. For pigs raised in backyards the percent of positive cases decrease from 0.12% in 2007 at 0.09% in 2008.

The number of positive cases of Trichinella spp. in humans decrease from 432 in 2007 at 389 in 2008 and with 224 hospitalized and one death.

##### **Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases**

The main sources of infection in humans with Trichinella spp. were pork meat and products thereof (raw meat or low treated products made in household with pig meat which came from backyard pigs) and wild boar meat. It was only a trichinellosis food-borne disease episode caused by wild boar meat.

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

The Romanian National Programme for Surveillance of Zoonoses on 2008 year was issued according with the provisions of Regulation 2005/2075/EC in order to control the Trichinellosis.

## 2.8.2 Trichinellosis in humans

### A. Trichinellosis in humans

#### **Reporting system in place for the human cases**

Rapid Alert System for Food and Feed and ECDC

#### **Case definition**

During the 2008 year a total number of 489 positive cases of *Trichinella spiralis* in humans were registered, and a total number of 116 human cases were hospitalized.

#### **Diagnostic/analytical methods used**

ELISA

#### **Notification system in place**

Rapid Alert System for Food and Feed.

#### **Results of the investigation**

489 positive cases for trichinellosis in humans were registered in 2008 year.

It was observed an increase of number of positive cases for trichinellosis in humans, from 432 positive cases in 2007 year to 489 positive cases in 2008 year.

A total number of 31 food borne outbreaks with *Trichinella* spp. were registered in 2008 year, of which:

- 1 general outbreak with 108 human cases registered, 108 human cases hospitalized, the incriminated food were pig meat and products thereof;
- 1 household outbreak with 6 human cases registered, 6 human cases hospitalized, the incriminated food were other red meat products containing pig meat;
- 29 household outbreaks with a total number of 275 human cases registered, a total number of 110 human cases hospitalized, 1 death, the incriminated food were pig meat and products thereof.

#### **Description of the positive cases detected during the reporting year**

During the 2007 year a total number of 432 positive cases of *Trichinella spiralis* in humans were registered.

## 2.8.3 Trichinella in animals

### A. Trichinella in pigs

#### **Number of officially recognised Trichinella-free holdings**

No available data.

#### **Categories of holdings officially recognised Trichinella-free**

No available data.

#### **Officially recognised regions with negligible Trichinella risk**

No available data.

#### **Monitoring system**

##### **Sampling strategy**

###### **General**

Sampling is compulsory for all pigs slaughtered, intended to human consumption.

#### **For categories of holdings officially recognised Trichinella-free**

#### **For regions with negligible Trichinella risk**

#### **Frequency of the sampling**

###### **General**

The sampling is compulsory performed for all pigs slaughtered and intended for human consumption, in order to detect *Trichinella* spp. according to the provisions of Regulation 2005/2075/EC.

#### **For Trichinella free holdings**

#### **For categories of holdings officially recognised Trichinella-free**

**Type of specimen taken**

**General**

Diaphragm pillars. In the absence of diaphragm pillars, the specimen which is taken: from the rib part or the breastbone part of the diaphragm, or from the jaw muscle, tongue or abdominal muscles.

**For Trichinella free holdings**

**For categories of holdings officially recognised Trichinella-free**

**For regions with negligible Trichinella risk**

**Methods of sampling (description of sampling techniques)**

**General**

According with the provisions of Regulation 2005/2075/EC, in order to detect Trichinella spp

**For Trichinella free holdings**

**For regions with negligible Trichinella risk**

**Case definition**

**For Trichinella free holdings**

No available data.

**For categories of holdings officially recognised Trichinella-free**

No available data.

**For regions with negligible Trichinella risk**

No available data.

**Diagnostic/analytical methods used**

**General**

Trichinellosis examination (direct microscopic method) on individual samples.

Artificial digestion methods (on pooled samples)

**Preventive measures in place**

Sampling is compulsory for all pigs slaughtered in order to detect *Trichinella* spp. and to avoid human trichinellosis.

**Control program/mechanisms**

**The control program/strategies in place**

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated which is according with the provisions of Regulation 2005/2075/EC, in order to detect *Trichinella* spp.

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

Pig meat contaminated with *Trichinella* spp. were withdrawn from human consumption and sent to the rendering establishments, in order to avoid human trichinellosis.

**The contingency plan in place**

No available data.

**Notification system in place**

Rapid Alert System for Food and Feed.

## **Results of the investigation including description of the positive cases and the**

In 2008 year were detected 629 positive cases in fattening pigs raised under controlled housing conditions in integrated production system and 379 positive cases in fattening pigs not raised under controlled housing conditions in integrated production.

Beside 2007, in 2008 it was observed an increase of percent of positive cases in the fattening pigs raised under controlled housing conditions in integrated production system (0.0243% in 2008 and 0.0036 in 2007).

For pigs raised in backyards was observed a decrease of percent of positive cases. For pigs raised in backyards the percent of positive cases decrease from 0.12% in 2007 at 0.09% in 2008.

In general, all positive samples are send to National Reference Laboratory for *Trichinella* which is Institute of Hygiene and Veterinary Public Health.

### **Fattening pigs raised under controlled housing conditions in integrated production system**

In 2008 *Trichinella* spp. was detected in 5 holdings at fattening pigs raised under controlled conditions in integrated production system. From a total of 629 positive units for *Trichinella* spp, 586 units were detected in one farm.

There were checked 2586796 samples. For 320 samples were received the results for determination of the *Trichinella* species involved: 319 were *Trichinella spiralis* and 1 was *Trichinella britovi*.

All positive samples was forwarded to the the Community reference laboratory for determination of the *Trichinella* species involved.

### **Breeding sows and boars**

There were checked 18799 samples from breeding animals and the results were negative for all of them.

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

During the year 2008, in Romania were detected a total number of 1045 positive cases of *Trichinella spiralis*, from which:

- 629 positive cases from 2.586.796 analysed fattening pigs raised under controlled housing conditions in integrated production system.

- 376 positive cases from 425.331 analysed fattening pigs non raised under controlled housing conditions in integrated production system (backyards). At 95 of them were established the species - 88 were *Trichinella spiralis* and 7 were *Trichinella britovi*.

Between 2007 and 2008, it was observed an increase of percent of positive samples for pigs from backyards and a decrease of percent of positive samples for pigs raised under controlled housing conditions in integrated production system.

### **Relevance of the findings in animals to findings in foodstuffs and to human cases**

The majority cases of trichinellosis detected to humans are related to the positive cases registered in fattening pigs coming from non controlled housing conditions in integrated system (backyards).

## **B. Trichinella in horses**

### **Monitoring system**

#### **Sampling strategy**

Sampling is compulsory for all slaughtered horses, intended to human consumption, in order to detect *Trichinella* spp.

The analysis is performed only by artificial digestion methods.

#### **Frequency of the sampling**

The analysis is performed only by artificial digestion methods, for each horse carcass at slaughterhouse.

#### **Type of specimen taken**

The lingual or jaw muscle. In the case of horse, where those muscles were lacking, a larger-sized specimen was taken from a pillar of the diaphragm at the transition to the sinewy part.

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

Specimens weighing at least 10 g are taken from the lingual or jaw muscle according to provisions of Regulation 2075/2005

#### **Case definition**

No positive cases in 2008.

#### **Diagnostic/analytical methods used**

Artificial digestion.

#### **Results of the investigation including the origin of the positive animals**

There were checked 22337 samples from horses and all results were negative.

#### **Control program/mechanisms**

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

The Romanian Control Programme was a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 55/23.06.2008, yearly updated which is according with the provisions of Regulation 2005/2075/EC, in order to detect *Trichinella* spp.

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

A positive laboratory finding of *Trichinella* spp is followed by a notification by RASFF to all levels (central, regional and local). The positive horse meat have to be withdrawn from human consumption and be sent to ABP units.

#### **Notification system in place**

## Rapid Alert System for Food and Feed

### **Monitoring system**

#### **Sampling strategy**

##### **For categories of holdings officially recognised Trichinella-free**

Sampling is compulsory for all slaughtered horses, intended to human consumption, in order to detect *Trichinella* spp.

The analysis is performed only by artificial digestion method, for each horse carcass at slaughterhouse.

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

No positive samples in 2008 year.

**Table Trichinella in animals**

	Source of information	Sampling unit	Units tested	Total units positive for Trichinella spp.	T. spiralis	T. britovi	Trichinella spp., unspecified
Bears - at game handling establishment - Surveillance - official controls - objective sampling	SVFSL	animal	164	22	3		19
Pigs - at farm - animal sample - Surveillance - official controls - objective sampling (pigs from backyards)	SVFSL	animal	425331	376	88	7	281
Pigs - breeding animals - unspecified - sows and boars - meat - Surveillance - official controls - objective sampling	SVFSL	animal	18799	0			
Pigs - fattening pigs - raised under controlled housing conditions in integrated production system - meat - Surveillance - official controls - objective sampling	SVFSL	animal	2586796	629	319	1	309
Solipeds, domestic - horses - meat - Surveillance - official controls - objective sampling	SVFSL	animal	22337	0			
Wild boars - farmed - at game handling establishment - Surveillance - official controls - objective sampling	SVFSL	animal	17	0			
Wild boars - wild - at game handling establishment - Surveillance - official controls - objective sampling	SVFSL	animal	7313	27	4		23

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## **2.9 ECHINOCOCCOSIS**

### **2.9.1 General evaluation of the national situation**

### **2.9.2 Echinococcosis in humans**

#### **A. Echinococcus spp. in humans**

##### **Reporting system in place for the human cases**

No available data at the national level.

## 2.9.3 Echinococcus in animals

**Table Echinococcus in animals**

	Source of information	Sampling unit	Units tested	Total units positive for Echinococcus spp.	E. granulosus	E. multilocularis	Echinococcus spp., unspecified
Cattle (bovine animals) - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSD	animal	211480	50603			50603
Goats - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSD	animal	1498	202			202
Pigs - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSD	animal	2605595	27484			27484
Sheep - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSD	animal	277885	13899			13899
Solipeds, domestic - at slaughterhouse - animal sample - Surveillance - official controls - objective sampling	SVFSD	animal	22337	0			

### Footnote:

SVFSD: Sanitary Veterinary and Food Safety Directorates.

## **2.10 TOXOPLASMOSIS**

### **2.10.1 General evaluation of the national situation**

### **2.10.2 Toxoplasmosis in humans**

## **2.11 RABIES**

### **2.11.1 General evaluation of the national situation**

### **2.11.2 Rabies in humans**

### **2.11.3 Lyssavirus (rabies) in animals**

**Table Rabies in animals**

	Source of information	Sampling unit	Units tested	Total units positive for Lyssavirus (rabies)	Unspecified Lyssavirus	Classical rabies virus (genotype 1)	European Bat Lyssavirus - unspecified
Badgers - wild	CSVFSD	animal	3	3		3	
Cats	CSVFSD	animal	85	63		63	
Cattle (bovine animals)	CSVFSD	animal	352	38		38	
Deer - wild - roe deer		animal	3	3		3	
Dogs	CSVFSD	animal	604	46		46	
Foxes - wild	CSVFSD	animal	2350	951		951	
Goats	CSVFSD	animal	6	4		4	
Jackals - wild - in total - Survey		animal	2	2		2	
Marten - wild	CSVFSD	animal	1	1		1	

**Table Rabies in animals**

	Source of information	Sampling unit	Units tested	Total units positive for Lyssavirus (rabies)	Unspecified Lyssavirus	Classical rabies virus (genotype 1)	European Bat Lyssavirus - unspecified
<b>Pigs</b>	CSVFSD	animal	3	0		0	
<b>Polecats - wild - in total - Clinical investigations</b>	CSVFSD	animal	7	5		5	
<b>Rabbits - pet animals - in total - Clinical investigations</b>	CSVFSD	animal	1	1		1	
<b>Sheep</b>	CSVFSD	animal	236	3		3	
<b>Solipeds, domestic</b>	CSVFSD	animal	18	13		13	
<b>Wild cat (<i>Felis silvestris</i>) - in total - Surveillance</b>	CSVFSD	animal	4	4		4	
<b>Wolves - wild</b>	CSVFSD	animal	6	6		6	

**Footnote:**

CSVFSD: County Sanitary Veterinary and Food Safety Directorate

## **2.12 Q-FEVER**

### **2.12.1 General evaluation of the national situation**

### **3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE**

## 3.1 ENTEROCOCCUS, NON-PATHOGENIC

### 3.1.1 General evaluation of the national situation

## 3.2 ESCHERICHIA COLI, NON-PATHOGENIC

### 3.2.1 General evaluation of the national situation

### 3.2.2 Antimicrobial resistance in *Escherichia coli*, non-pathogenic

**Table Antimicrobial susceptibility testing of *E. coli* in Cats - quantitative data [Diffusion method]**

E. coli		Cats																												
		Isolates out of a monitoring program (yes/no)																												
		Number of isolates available in the laboratory																												
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28			
Aminoglycosides	Gentamicin	11	25	5	4					1	1					1	2	1	7	3	2		2		1					
	Kanamycin		0	0																										
	Neomycin		0	0																										
	Streptomycin	11	24	12	10			1	1					4	4	2	2													
Amphenicols	Chloramphenicol	12	25	6	4		2													1	1	6	1	5	1	2		2		
	Florfenicol	14	0	0																										
Cephalosporins	3rd generation cephalosporins	14	24	3	2						1								1			1	2	5	3	4	4			
Fluoroquinolones	Ciprofloxacin	15	25	6	4						1	1							1		4		1		1	1	3			
	Enrofloxacin	16	25	7	5		1							1					2	1			1	4	1	1	2			
Penicillins	Ampicillin	13	4	1	1													1		1			1							
Quinolones	Nalidixic acid	13	17	10	10															1		1	1	3	2					

**Table Antimicrobial susceptibility testing of *E. coli* in Cats - quantitative data [Diffusion method]**

<b>E. coli</b>		Cats																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
		Antimicrobials:																										
		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Sulfonamides	Sulfonamide	12	0	0																								
Tetracyclines	Tetracyclin	11	20	10	10															6		2		2				
Trimethoprim	Trimethoprim	10	49	2	2																	22			25			
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	0	0																								

<b>E. coli</b>		Cats																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
		Antimicrobials:																										
		29	30	31	32	33	34	>=35																				
Aminoglycosides	Gentamicin																											
	Kanamycin																											
	Neomycin																											
	Streptomycin																											
Amphenicols	Chloramphenicol																											
	Florfenicol																											
Cephalosporins	3rd generation cephalosporins		1																									
Fluoroquinolones	Ciprofloxacin	1	5	1	1																							
	Enrofloxacin	1	4		1																							
Penicillins	Ampicillin																											
Quinolones	Nalidixic acid																											

**Table Antimicrobial susceptibility testing of E. coli in Cats - quantitative data [Diffusion method]**

E. coli		Cats						
		Isolates out of a monitoring program (yes/no)						
		Number of isolates available in the laboratory						
Antimicrobials:		0						
Sulfonamides	Sulfonamide	29	30	31	32	33	34	>=35
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *E. coli* in *Gallus gallus* (fowl) - quantitative data [Diffusion method]**

E. coli		Gallus gallus (fowl)																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	11	20	0																20								
	Kanamycin		0	0																								
	Neomycin		0	0																								
	Streptomycin	11	15	0														15										
Amphenicols	Chloramphenicol	12	4	0																								
	Florfenicol	14	0	0																								
Cephalosporins	3rd generation cephalosporins	14	4	0																								
Fluoroquinolones	Ciprofloxacin	15	4	0																								
	Enrofloxacin	16	4	4														4										
Penicillins	Ampicillin	13	4	4	4																							
Quinolones	Nalidixic acid	13	4	4	4																							
Sulfonamides	Sulfonamide	12	0	0																								
Tetracyclines	Tetracyclin	11	0	0																								
Trimethoprim	Trimethoprim	10	22	0																				22				
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	0	0																								

**Table Antimicrobial susceptibility testing of *E. coli* in *Gallus gallus* (fowl) - quantitative data [Diffusion method]**

<b><i>E. coli</i></b>		<b><i>Gallus gallus</i> (fowl)</b>						
		Isolates out of a monitoring program (yes/no)						
		Number of isolates available in the laboratory						
<b>Antimicrobials:</b>		yes						
		29	30	31	32	33	34	$\geq 35$
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins							
Fluoroquinolones	Ciprofloxacin							
	Enrofloxacin							
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *E. coli* in Dogs - quantitative data [Diffusion method]**

E. coli		Dogs																										
		Isolates out of a monitoring program (yes/no)																										
		Number of isolates available in the laboratory																										
Antimicrobials:		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Aminoglycosides	Gentamicin	11	59	4		1	2		1		2		1	1	1	2	3		26	6	9	1	1	1			1	
	Kanamycin		0	0																								
	Neomycin		0	0																								
	Streptomycin	11	57	29	18	1	3		6	1	2	1	2	7	4	1	5	3	1	1								1
Amphenicols	Chloramphenicol	12	58	14	9		3				2				1		3		1	2	11	3	9	7	5	1	1	
	Florfenicol	14	0	0																								
Cephalosporins	3rd generation cephalosporins	14	61	4	3						1							2		1	3	8	12	14	5	7		
Fluoroquinolones	Ciprofloxacin	15	60	12	5		1		1	1	1	2		1			1		3	3	2		4	3	4	3	7	
	Enrofloxacin	16	60	13	9	1		1	1					1			1		2	2	7			5	2	6	4	
Penicillins	Ampicillin	13	7	3	3									1			1		2									
Quinolones	Nalidixic acid	13	37	12	12												1		2	1	6	3	5	3	3		1	
Sulfonamides	Sulfonamide	12	0	0																								
Tetracyclines	Tetracyclin	11	44	31	29				1	1							2		1	2	4	1	1		2			
Trimethoprim	Trimethoprim	10	7	2	2																	1	1	1	1			1
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	0	0																								

**Table Antimicrobial susceptibility testing of *E. coli* in Dogs - quantitative data [Diffusion method]**

<b><i>E. coli</i></b>		<b>Dogs</b>						
		Isolates out of a monitoring program (yes/no)						
		Number of isolates available in the laboratory						
<b>Antimicrobials:</b>								
		29	30	31	32	33	34	$\geq 35$
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins		3		1			1
Fluoroquinolones	Ciprofloxacin		16		1		1	
	Enrofloxacin	1	13	1	2	1		
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *E. coli* in Cattle (bovine animals) - quantitative data [Diffusion method]**

E. coli		Cattle (bovine animals)																									
		Isolates out of a monitoring program (yes/no)																									
		Number of isolates available in the laboratory																									
		Antimicrobials:																									
		break points	N	n	<=6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Aminoglycosides	Gentamicin	11	18	1						1				1	3		13										
	Kanamycin		0	0																							
	Neomycin		0	0																							
	Streptomycin	11	70	8	5		1			2	4	4	8	10	6	1	2	1	19	4	1			1			1
Amphenicols	Chloramphenicol	12	17	3	3										1				5		5		2	1			
	Florfenicol	14	41	2										1	1	1			7	9	15	3		4			
Cephalosporins	3rd generation cephalosporins	14	44	0																5	3	8	19	6	1	1	
Fluoroquinolones	Ciprofloxacin	15	44	0															1			2	12	5	7	4	
	Enrofloxacin	16	44	0															1		2	5	17	9	4	1	
Penicillins	Ampicillin	13	16	5	4								1	1	1	2		1	1	4		1					
Quinolones	Nalidixic acid	13	44	0									1					1		5	3	12	7	8	7		
Sulfonamides	Sulfonamide	12	0	0																							
Tetracyclines	Tetracyclin	11	25	2	2										1		10		11		1						
Trimethoprim	Trimethoprim	10	14	0															1			1	2	9	1		
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	10	0	0																							

**Table Antimicrobial susceptibility testing of *E. coli* in Cattle (bovine animals) - quantitative data [Diffusion method]**

<b><i>E. coli</i></b>		Cattle (bovine animals)						
		Isolates out of a monitoring program (yes/no)						
		Number of isolates available in the laboratory						
<b>Antimicrobials:</b>		yes						
		0						
		29	30	31	32	33	34	$\geq 35$
Aminoglycosides	Gentamicin							
	Kanamycin							
	Neomycin							
	Streptomycin							
Amphenicols	Chloramphenicol							
	Florfenicol							
Cephalosporins	3rd generation cephalosporins		1					
Fluoroquinolones	Ciprofloxacin		13					
	Enrofloxacin		5					
Penicillins	Ampicillin							
Quinolones	Nalidixic acid							
Sulfonamides	Sulfonamide							
Tetracyclines	Tetracyclin							
Trimethoprim	Trimethoprim							
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides							

**Table Antimicrobial susceptibility testing of *E. coli* in animals**

<b><i>E. coli</i></b> Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory		Cattle (bovine animals)		Pigs		Gallus gallus (fowl)		Turkeys		Dogs		Cats	
		yes				yes				yes		yes	
		44				4				60		25	
<b>Antimicrobials:</b>		N	n	N	n	N	n	N	n	N	n	N	n
Aminoglycosides	Gentamicin	44	1			4	0			59	4	25	5
	Streptomycin	44	8			4	0			58	29	24	12
Amphenicols	Chloramphenicol	17	3			4	0			56	14	25	6
Fluoroquinolones	Ciprofloxacin	44	0			4	0			60	12	25	6
	Enrofloxacin	44	0			4	4			60	13	25	7
Fully sensitive	Fully sensitive	44	16			4	0			60	17	25	4
Penicillins	Ampicillin	16	5			4	4			7	3	4	1
Quinolones	Nalidixic acid	44	0			4	4			37	12	17	10
Resistant to 1 antimicrobial	Resistant to 1 antimicrobial	44	4			4	0			60	10	25	4
Resistant to 2 antimicrobials	Resistant to 2 antimicrobials	44	3			4	0			60	8	25	1
Resistant to 3 antimicrobials	Resistant to 3 antimicrobials	44	1			4	4			60	6	25	1
Resistant to 4 antimicrobials	Resistant to 4 antimicrobials	44	1			4	0			60	7	25	2
Resistant to >4 antimicrobials	Resistant to >4 antimicrobials	44	1			4	0			60	9	25	7
Tetracyclines	Tetracyclin	26	2			4	0			44	31	20	10
Trimethoprim	Trimethoprim	16	2			4	0			7	2	4	2

**Table Breakpoints used for antimicrobial susceptibility testing**

Test Method Used		Standards used for testing	
Disc diffusion	●		
Agar dilution	○		
Broth dilution	○		
E-test	○		

		Standard for breakpoint	Breakpoint concentration (microg/ml)			Range tested concentration (microg/ml)		Disk content	Breakpoint Zone diameter (mm)		
			Susceptible <=	Intermediate	Resistant >	lowest	highest		Susceptible >=	Intermediate	Resistant <=
Aminoglycosides	Gentamicin	NCCLS						10	15	13	11
	Streptomycin	NCCLS						10	15	13	11
Amphenicols	Chloramphenicol	NCCLS						30	18	15	12
	Florfenicol	NCCLS						30	19	17	14
Cephalosporins	3rd generation cephalosporins	NCCLS						30	23	18	14
Fluoroquinolones	Ciprofloxacin	NCCLS						5	21	18	15
	Enrofloxacin	NCCLS						5	23	19	16
Penicillins	Ampicillin	NCCLS						10	17	15	13
Quinolones	Nalidixic acid	NCCLS						30	19	16	13
Sulfonamides	Sulfonamide	NCCLS						300	17	14	12
Tetracyclines	Tetracyclin	NCCLS						30	15	13	11
Trimethoprim	Trimethoprim	NCCLS						5	16	13	10
Trimethoprim + sulfonamides	Trimethoprim + sulfonamides	NCCLS						25	16	13	10

## **4. INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS**

## **4.1 HISTAMINE**

### **4.1.1 General evaluation of the national situation**

#### **A. Histamine General evaluation**

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

No available data

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

No available data.

##### **Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases**

No available data.

##### **Recent actions taken to control the hazard**

No available data.

## 4.1.2 Histamine in foodstuffs

### A. Histamine in foodstuffs

#### **Monitoring system**

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

There were sampled particularly fish species of the families: Scombridae, Clupeidae, Engraulidae, Coryfenidae, Pomatomidae, Scombresosidae.

##### **Definition of positive finding**

For fishery products manufactured/prepared from fish species associated with a high amount of histidine are sampled 9 units from which 2 units may have the values between 100 mg/kg - 200 mg/kg.

For fishery products which have undergone enzyme maturation treatment in brine, manufactured/prepared from fish species associated with a high amount of histidine are sampled 9 units from which 2 units may have the values between 200 mg/kg - 400 mg/kg.

#### **Diagnostic/analytical methods used**

HPLC AOAC JURNAL, vol.81, no. 5/1998

#### **Control program/mechanisms**

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

The Romanian Control Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated which is according with the provisions of Regulation 2005/2073/EC, in order to detect histamine.

#### **Notification system in place**

Rapid Alert System for Food and Feed.

#### **Results of the investigation**

There were analyzed 35 samples from fish species associated with a high amount of histidine and all the samples had values under 100 mg/kg.

**Table Histamine in food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units in non-conformity	<= 100 mg/kg	>100 - <= 200 mg/kg	>200 - <= 400 mg/kg	> 400 mg/kg
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at retail - domestic production - Surveillance - official controls - objective sampling	IHVPH	batch	10	17	0	17			
Fish - Fishery products which have undergone enzyme maturation treatment in brine - at retail - domestic production - Surveillance - official controls - objective sampling	IHVPH	batch	10	18	0	18			

**Footnote:**

IHVPH: Institute of Hygiene and Veterinary Public Health

## **4.2 ENTEROBACTER SAKAZAKII**

### **4.2.1 General evaluation of the national situation**

### **4.2.2 Enterobacter sakazakii in foodstuffs**

#### **A. Enterobacter sakazakii in foodstuffs**

##### **Monitoring system**

##### **Definition of positive finding**

According to the Romanian Surveillance Programme our national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated a sample is positive for Enterobacter sakazakii in the moment of detection.

##### **Diagnostic/analytical methods used**

SR ISO/TS 22964/2007

##### **Control program/mechanisms**

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

The Romanian Surveillance Programme is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no 4/31.01.2008, yearly updated which is according with the provisions of Regulation 2005/2073/EC, in order to detect Enterobacter sakazakii.

##### **Notification system in place**

Rapid Alert System for Food and Feed.

##### **Results of the investigation**

In 2008 year were analyzed 2 samples from own checks and both samples were not found positive for Enterobacter sakazakii.

**Table Enterobacter sakazakii in food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Enterobacter sakazakii	E. sakazakii
Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0	
Infant formula - dried - at retail - imported - Surveillance - HACCP and own checks	SVFSL	batch	25	2	0	

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## **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**

##### **Definition of positive finding**

If were detected large values than 100000 CFU/g of coagulazo-positive staphylococcus, the sample will be tested for staphylococcal enterotoxins (according with the provisions of Regulation 2073/2005).

##### **Diagnostic/analytical methods used**

The screening European method from CRL.

##### **Control program/mechanisms**

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

The Romanian Surveillance Programme which is according with the provisions of Regulation 2005/2073/EC, in order to detect Staphylococcal enterotoxins.

##### **Notification system in place**

Rapid Alert System for Food and Feed.

##### **Results of the investigation**

In 2008 year were analyzed 43 samples and any samples were not found positive.

**Table Staphylococcal enterotoxins in food**

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Staphylococcal enterotoxins
Cheeses made from cows' milk - hard - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	11	0
Cheeses made from cows' milk - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0
Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - at retail - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	29	0
Cheeses made from sheep's milk - hard - made from raw or low heat-treated milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	3	0
Cheeses made from sheep's milk - soft and semi-soft - made from pasteurised milk - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	13	0
Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - domestic production - Surveillance - official controls - objective sampling	SVFSL	batch	25	8	0

**Footnote:**

SVFSL: Sanitary Veterinary and Food Safety Laboratories.

## 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**

Romanian National Programme for Surveillance of Zoonoses on 2008 year, Rapid Alert System for Food and Feed, National Sanitary Veterinary and Food Safety Authority Order no. 34/2006, which transposed Directive 2003/99/EC.

The municipal public health authorities are responsible for detecting, preventing diseases related to food and water and for notifying to the other authorities involved. Ill persons and the overall epidemiological investigation are the responsibilities of the regional authorities (public health and veterinary public health authorities).

### **Description of the types of outbreaks covered by the reporting:**

In general household outbreaks followed by general outbreaks.

The following results (table) include food borne outbreaks notified in the framework of mandatory notification.

### **National evaluation of the reported outbreaks in the country:**

#### **Trends in numbers of outbreaks and numbers of human cases involved**

In 2008, a total number of 50 food borne outbreaks were reported under the mandatory notification system. The causative agent was laboratory confirmed. The causative agent was identified based on epidemiological and laboratory findings.

#### **Relevance of the different causative agents, food categories and the agent/food category combinations**

The causative agent was isolated in the incriminated foodstuff or epidemiologically suspected (table). *Trichinella* was the most frequently identified agent in food borne disease outbreaks

#### **Relevance of the different type of places of food production and preparation in outbreaks**

Most of the outbreaks were reported to be linked to the private household and the most important factors contributing to food borne disease outbreaks reported were contamination of food through the use of contaminated raw material or transmitted by infected persons.

#### **Control measures or other actions taken to improve the situation**

All the control measures are described in Romanian Surveillance Programme which is a national programme, published in Romanian Official Journal as Order of the President of the National Sanitary Veterinary and Food Safety Authority no. 4/31.01.2008.

## Foodborne Outbreaks: summarized data

	Total number of outbreaks	Outbreaks	Human cases	Hospitalized	Deaths	Number of verified outbreaks
Bacillus	0	0	unknown	unknown	unknown	0
Campylobacter	0	0	unknown	unknown	unknown	0
Clostridium	7	2	4	4	1	5
Escherichia coli, pathogenic	0	0	unknown	unknown	unknown	0
Foodborne viruses	0	0	unknown	unknown	unknown	0
Listeria	0	0	unknown	unknown	unknown	0
Other agents	1	1	18	18	0	0
Parasites	31	0	unknown	unknown	unknown	31
Salmonella	6	2	9	9	0	4
Staphylococcus	3	2	17	17	0	1
Unknown	2	2	23	22	0	0
Yersinia	0	0	unknown	unknown	unknown	0

**Verified Foodborne Outbreaks: detailed data****S. Enteritidis**

Value

Code	004
Subagent Choice	Salmonella; S. Enteritidis
Outbreak type	Household
Human cases	5
Hospitalized	5
Deaths	0
Foodstuff implicated	Other foods
More Foodstuff	Food products and prepared dishes which caused the food borne outbreak were made in household with low treated materials from backyard animals.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment
Outbreaks	1
Comment	

**S. Enteritidis**

Value

Code	004
Subagent Choice	
Outbreak type	Household
Human cases	8
Hospitalized	8
Deaths	0
Foodstuff implicated	Dairy products (other than cheeses)
More Foodstuff	Ice-cream was made in household with raw materials (eggs and milk) which came from backyard cows and poultry.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Unprocessed contaminated ingredient
Outbreaks	1
Comment	

**Salmonella spp.**

Value

Code	004
Subagent Choice	Salmonella; Salmonella spp., unspecified
Outbreak type	Household
Human cases	11
Hospitalized	7
Deaths	0
Foodstuff implicated	Dairy products (other than cheeses)
More Foodstuff	Dairy products were made in household with low heat treatment
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment
Outbreaks	1
Comment	

**Salmonella spp., unspecified**

Value

Code	004
Subagent Choice	
Outbreak type	Household
Human cases	15
Hospitalized	12
Deaths	0
Foodstuff implicated	Sweets and chocolate
More Foodstuff	The cookie was made in household with raw eggs.
Type of evidence	Laboratory detection in human cases, Analytical epidemiological evidence
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment
Outbreaks	1
Comment	

**Verified Foodborne Outbreaks: detailed data****C. botulinum**

Value

Code	007
Subagent Choice	Clostridium; C. botulinum; C. botulinum toxins
Outbreak type	Household
Human cases	1
Hospitalized	1
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork products were made in household; the raw pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Household, domestic kitchen
Origin of foodstuff	Domestic
Contributory factors	Cross-contamination, Other contributory factor, Inadequate heat treatment, Inadequate chilling
Outbreaks	1
Comment	

**C. botulinum**

Value

Code	007
Subagent Choice	
Outbreak type	Household
Human cases	1
Hospitalized	1
Deaths	0
Foodstuff implicated	Other or mixed red meat and products thereof
More Foodstuff	The mixt products were made in household; the raw pork and beef meat came from backyard pigs and cows.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Household, domestic kitchen
Origin of foodstuff	Domestic
Contributory factors	Storage time/temperature abuse, Cross-contamination, Inadequate chilling, Inadequate heat treatment
Outbreaks	1
Comment	

**C. botulinum**

Value

Code	007
Subagent Choice	
Outbreak type	Household
Human cases	9
Hospitalized	5
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork products were made in household; the raw pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Household, domestic kitchen
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment, Cross-contamination, Inadequate chilling
Outbreaks	1
Comment	

**C. botulinum**

Value

Code	007
Subagent Choice	
Outbreak type	Household
Human cases	1
Hospitalized	1
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork products were made in household; the raw pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Household, domestic kitchen
Origin of foodstuff	Domestic
Contributory factors	Inadequate chilling, Cross-contamination, Inadequate heat treatment
Outbreaks	1
Comment	

**C. botulinum**

Value

Code	007
Subagent Choice	
Outbreak type	Household
Human cases	1
Hospitalized	1
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork products were made in household; the raw pork meat came from backyard pigs
Type of evidence	Laboratory detection in human cases, Laboratory detection in implicated food
Setting	Household
Place of origin of problem	Household, domestic kitchen
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment, Inadequate chilling, Cross-contamination
Outbreaks	1
Comment	

**Verified Foodborne Outbreaks: detailed data****S. aureus**

Value

Code	008
Subagent Choice	
Outbreak type	General
Human cases	21
Hospitalized	21
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	
Type of evidence	Laboratory detection in human cases, Laboratory detection in implicated food
Setting	Canteen or workplace catering
Place of origin of problem	Other place of origin
Origin of foodstuff	Domestic
Contributory factors	Infected food handler
Outbreaks	1
Comment	

**Verified Foodborne Outbreaks: detailed data****Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	Parasites; Trichinella; Trichinella spp., unspecified
Outbreak type	General
Human cases	108
Hospitalized	108
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	
Type of evidence	Laboratory detection in human cases, Laboratory detection in implicated food
Setting	Canteen or workplace catering
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment, Other contributory factor
Outbreaks	1
Comment	Before to be eatten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	Parasites; Trichinella; Trichinella spp., unspecified
Outbreak type	Household
Human cases	6
Hospitalized	6
Deaths	0
Foodstuff implicated	Other or mixed red meat and products thereof
More Foodstuff	
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Other place of origin
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of wild boar had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	Parasites; Trichinella; Trichinella spp., unspecified
Outbreak type	Household
Human cases	2
Hospitalized	2
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment, Other contributory factor
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	3
Hospitalized	3
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	4
Hospitalized	4
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment, Other contributory factor
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	3
Hospitalized	3
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	3
Hospitalized	3
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	4
Hospitalized	4
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	4
Hospitalized	4
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs
Type of evidence	Laboratory detection in human cases, Laboratory detection in implicated food
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	11
Hospitalized	7
Deaths	1
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Unknown
Human cases	5
Hospitalized	5
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Unknown
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	41
Hospitalized	5
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	16
Hospitalized	1
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	30
Hospitalized	5
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	5
Hospitalized	0
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	57
Hospitalized	8
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	7
Hospitalized	2
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	17
Hospitalized	6
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	4
Hospitalized	4
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	3
Hospitalized	3
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Inadequate heat treatment, Other contributory factor
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	2
Hospitalized	2
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	8
Hospitalized	8
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	6
Hospitalized	6
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	8
Hospitalized	8
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	3
Hospitalized	3
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	6
Hospitalized	6
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	5
Hospitalized	5
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	4
Hospitalized	1
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella.

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	5
Hospitalized	0
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	9
Hospitalized	0
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella.

**Trichinella spp., unspecified**

Value

Code	073
Subagent Choice	
Outbreak type	Household
Human cases	2
Hospitalized	2
Deaths	0
Foodstuff implicated	Pig meat and products thereof
More Foodstuff	The pork meat came from backyard pigs.
Type of evidence	Laboratory detection in implicated food, Laboratory detection in human cases
Setting	Household
Place of origin of problem	Farm (primary production)
Origin of foodstuff	Domestic
Contributory factors	Other contributory factor, Inadequate heat treatment
Outbreaks	1
Comment	Before to be eaten, meat of pig had not been examined for Trichinella.