

BELGIUM

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

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

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

IN 2012

INFORMATION ON THE REPORTING AND MONITORING SYSTEM

Country: Belgium

Reporting Year: 2012

| Laboratory name | Description | Contribution |
|------------------|---|--------------|
| FASFC AFSCA FAVV | Federal Agency for the Safety of the Food Chain | |
| IPH WIV ISP | Scientific Institute of Public Health | |
| VAR CODA CERVA | Veterinary and Agrochemical Research Centre | |
| ITG | Institute of Tropical Medicine | |

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 Belgium during the year 2012 .

The information covers the occurrence of these diseases and agents in humans, animals, foodstuffs and in some cases also in feedingstuffs. In addition the report includes data on antimicrobial resistance in some zoonotic agents and commensal bacteria as well as information on epidemiological investigations of foodborne outbreaks. Complementary data on susceptible animal populations in the country is also given. The information given covers both zoonoses that are important for the public health in the whole European Community as well as zoonoses, which are relevant on the basis of the national epidemiological situation.

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

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

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

* 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 ZOOSES AND ZONOTIC AGENTS | 5 |
| 2.1 | SALMONELLOSIS | 6 |
| 2.1.1 | General evaluation of the national situation | 6 |
| 2.1.2 | Salmonella in foodstuffs | 6 |
| 2.1.3 | Salmonella in animals | 40 |
| 2.1.4 | Salmonella in feedingstuffs | 67 |
| 2.1.5 | Antimicrobial resistance in Salmonella isolates | 79 |
| 2.2 | CAMPYLOBACTERIOSIS | 424 |
| 2.2.1 | General evaluation of the national situation | 424 |
| 2.2.2 | Campylobacter in foodstuffs | 425 |
| 2.2.3 | Campylobacter in animals | 435 |
| 2.2.4 | Antimicrobial resistance in Campylobacter isolates | 436 |
| 2.3 | LISTERIOSIS | 459 |
| 2.3.1 | General evaluation of the national situation | 459 |
| 2.3.2 | Listeriosis in humans | 460 |
| 2.3.3 | Listeria in foodstuffs | 461 |
| 2.4 | E. COLI INFECTIONS | 476 |
| 2.4.1 | General evaluation of the national situation | 476 |
| 2.4.2 | Escherichia coli, pathogenic in foodstuffs | 476 |
| 2.4.3 | Escherichia coli, pathogenic in animals | 483 |
| 2.5 | TUBERCULOSIS, MYCOBACTERIAL DISEASES | 484 |
| 2.5.1 | General evaluation of the national situation | 484 |
| 2.5.2 | Tuberculosis, mycobacterial diseases in humans | 486 |
| 2.5.3 | Mycobacterium in animals | 487 |
| 2.6 | BRUCELLOSIS | 495 |
| 2.6.1 | General evaluation of the national situation | 495 |
| 2.6.2 | Brucella in foodstuffs | 495 |
| 2.6.3 | Brucella in animals | 496 |
| 2.7 | YERSINIOSIS | 505 |
| 2.7.1 | General evaluation of the national situation | 505 |
| 2.7.2 | Yersiniosis in humans | 506 |
| 2.7.3 | Yersinia in foodstuffs | 507 |
| 2.7.4 | Yersinia in animals | 509 |
| 2.8 | TRICHINELLOSIS | 510 |
| 2.8.1 | General evaluation of the national situation | 510 |
| 2.8.2 | Trichinellosis in humans | 512 |
| 2.8.3 | Trichinella in animals | 513 |
| 2.9 | ECHINOCOCCOSIS | 517 |
| 2.9.1 | General evaluation of the national situation | 517 |

| | | |
|--------|---|-----|
| 2.10 | TOXOPLASMOSIS | 518 |
| 2.10.1 | General evaluation of the national situation | 518 |
| 2.11 | RABIES | 519 |
| 2.11.1 | General evaluation of the national situation | 519 |
| 2.11.2 | Lyssavirus (rabies) in animals | 521 |
| 2.12 | STAPHYLOCOCCUS INFECTION | 525 |
| 2.12.1 | General evaluation of the national situation | 525 |
| 2.12.2 | Staphylococcus in foodstuffs | 525 |
| 2.12.3 | Staphylococcus in animals | 536 |
| 2.12.4 | Antimicrobial resistance in Staphylococcus isolates | 538 |
| 2.13 | Q-FEVER | 574 |
| 2.13.1 | General evaluation of the national situation | 574 |
| 2.13.2 | Coxiella (Q-fever) in animals | 576 |
| 2.14 | CYSTICERCOSIS, TAENIOSIS | 578 |
| 2.14.1 | General evaluation of the national situation | 578 |
| 2.14.2 | Cysticerci in animals | 580 |
| 2.15 | SARCOCYSTOSIS | 581 |
| 2.15.1 | General evaluation of the national situation | 581 |
| 2.15.2 | Sarcocystis in animals | 582 |
| 2.16 | HEPATITIS | 583 |
| 2.16.1 | General evaluation of the national situation | 583 |
| 2.17 | WEST NILE VIRUS INFECTIONS | 583 |
| 2.17.1 | General evaluation of the national situation | 583 |
| 2.17.2 | West Nile Virus in animals | 583 |
| 3 | INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL | 586 |
| 3.1 | ESCHERICHIA COLI, NON-PATHOGENIC | 587 |
| 3.1.1 | General evaluation of the national situation | 587 |
| 3.1.2 | Escherichia coli, non-pathogenic in foodstuffs | 588 |
| 3.1.3 | Antimicrobial resistance in Escherichia coli, non-pathogenic | 589 |
| 3.2 | ENTEROCOCCUS, NON-PATHOGENIC | 600 |
| 3.2.1 | General evaluation of the national situation | 600 |
| 3.2.2 | Enterococcus, non-pathogenic in animals | 600 |
| 3.2.3 | Antimicrobial resistance in Enterococcus, non-pathogenic isolates | 601 |
| 4 | INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS | 641 |
| 4.1 | ENTEROBACTER SAKAZAKII | 642 |
| 4.1.1 | General evaluation of the national situation | 642 |
| 4.1.2 | Cronobacter in foodstuffs | 642 |
| 4.2 | HISTAMINE | 644 |
| 4.2.1 | General evaluation of the national situation | 644 |
| 4.2.2 | Histamine in foodstuffs | 644 |
| 4.3 | STAPHYLOCOCCAL ENTEROTOXINS | 646 |
| 4.3.1 | General evaluation of the national situation | 646 |
| 4.3.2 | Staphylococcal enterotoxins in foodstuffs | 646 |

5 FOODBORNE OUTBREAKS

1. ANIMAL POPULATIONS

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

A. Information on susceptible animal population

Sources of information

SANITEL and BELTRACE database of the Federal Agency for the Safety of the Food Chain.

Dates the figures relate to and the content of the figures

Number of animals = number of animals at a certain time point of the year.

Number of slaughtered animals = total number of slaughtered animals during the year.

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

Holding: any establishment, construction or, in the case of an open-air farm, any place in which animals are held, kept or handled.

The location of the holding is based on the address and the coordinates of the geographical entity. A geographical entity is a unit of one building or a complex of buildings included grounds and territories where an animal species is or could be hold.

Herd: an animal or group of animals kept on a holding as an epidemiological unit; if more than one herd is kept on a holding, each of these herds shall form a distinct unit and shall have the same health status.

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

For the last 5 years, there's a significant decrease in total number of holdings of bovines, porcine, sheep, goats and farmed deer. The total number of bovine animals remains unchanged what means that the mean total number of animals per holding is increasing. The total number of porcine, sheep, goats and farmed deer is decreasing.

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

Belgium can be geographically divided into two regions: the Flemish region situated in the north of the country and the Walloon region situated in the south. There's a very dense animal population of bovines, swine and poultry in the Flemish region. The Walloon region is important for his cattle breeding holdings of the Belgian Blue White race. The number of porcine and poultry holdings in the Walloon region is rather limited.

Table Susceptible animal populations

* Only if different than current reporting year

| Animal species | Category of animals | Number of herds or flocks | | Number of slaughtered animals | | Livestock numbers (live animals) | | Number of holdings | |
|-------------------------|---|---------------------------|-------|-------------------------------|-------|----------------------------------|-------|--------------------|-------|
| | | Data | Year* | Data | Year* | Data | Year* | Data | Year* |
| Cattle (bovine animals) | meat production animals | | | 512088 | | | | | |
| | calves (under 1 year) | | | 312423 | | | | | |
| | - in total | | | 824511 | | 2603148 | | 32475 | |
| Deer | farmed - in total | | | | | 9591 | | 2605 | |
| | farmed - at slaughterhouse | | | 820 | | | | | |
| | wild - at game handling establishment | | | 10450 | | | | | |
| Gallus gallus (fowl) | breeding flocks, unspecified - in total | | | | | 1472600 | | | |
| | laying hens | | | | | 8870007 | | | |
| | broilers | | | | | 25445919 | | | |
| | - in total | | | 313094063 | | | | 1591 | |
| Goats | - in total | | | 7553 | | 42950 | | 11255 | |
| Pigs | fattening pigs | | | | | 5362090 | | | |
| | breeding animals - unspecified - sows and gilts | | | | | 566600 | | | |

Table Susceptible animal populations

| Animal species | Category of animals | Number of herds or flocks | | Number of slaughtered animals | | Livestock numbers (live animals) | | Number of holdings | |
|--------------------|---------------------------------------|---------------------------|-------|-------------------------------|-------|----------------------------------|-------|--------------------|-------|
| | | Data | Year* | Data | Year* | Data | Year* | Data | Year* |
| Pigs | - in total | | | 11724297 | | | | 8690 | |
| Sheep | - in total | | | 116231 | | 201209 | | 28223 | |
| Solipeds, domestic | horses - in total | | | 9199 | | 236447 | | | |
| Wild boars | wild - at game handling establishment | | | 11691 | | | | | |
| Rabbits | farmed | | | 2993525 | | | | | |

2. INFORMATION ON SPECIFIC ZOOSES AND ZOOBOTIC AGENTS

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

2.1 SALMONELLOSIS

2.1.1 General evaluation of the national situation

2.1.2 Salmonella in foodstuffs

A. Salmonella spp. in broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

A monitoring program in Belgian slaughterhouses and cutting plants was organized by the FASFC.

The matrices were carcasses, cuts and meat preparation of broilers. The carcass samples of broiler consisted of 10g of neck skin. The following contamination levels were analyzed: 25g cutting meat and 10g of minced meat of chicken and 1g of chicken carcasses.

Sampling was done by a specially trained staff. For most matrices, independent samples were taken per matrix in order to detect a minimal contamination rate of 1% with 95% confidence.

At retail

An annual control program is designed following the strategy as explained in the MANCP.

Frequency of the sampling

At slaughterhouse and cutting plant

Sampling distributed evenly throughout the year

At meat processing plant

Sampling distributed evenly throughout the year

At retail

Sampling distributed evenly throughout the year

Type of specimen taken

At slaughterhouse and cutting plant

Neck skin and cutting meat

At meat processing plant

Minced meat, sausages, meat and other

At retail

Minced meat, sausages, meat and other

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

The matrices were carcasses, cuts and meat preparation of broilers. The carcass samples of broiler consisted of 10g of neck skin. The following contamination levels were analyzed: 25g cutting meat and 10g of minced meat of chicken and 1g of chicken carcasses.

Belgium - 2012 Report on trends and sources of zoonoses

At meat processing plant

The samples were about 200 g of meat. The detection of Salmonella has been assessed in 10g or 25g of sample.

At retail

The presence of Salmonella has been assessed in 25g of sample.

Definition of positive finding

At slaughterhouse and cutting plant

A sample is considered positive in case of detection of Salmonella in the sample.

Diagnostic/analytical methods used

At slaughterhouse and cutting plant

Bacteriological method: ISO 6579:2002

Control program/mechanisms

The control program/strategies in place

A microbiological control of carcasses and meat of poultry is made with the aim of following the level of contamination by Salmonella.

Measures in case of the positive findings or single cases

In case of positive findings, no measure is taken face to products which entered normally the food chain. But corrective measures must be taken at the level of the slaughterhouse or of the cutting plant by the FBO.

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

The rate of Salmonella contamination of poultry meat observed in 2012 is comparable with the previous years.

B. Salmonella spp. in pig meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

A monitoring program was organized by the FASFC in slaughterhouses and cutting plants.

Sampling was done by a specially trained staff. For most matrices, independent samples were taken per matrix in order to evaluate the contamination with 95% confidence.

Frequency of the sampling

At slaughterhouse and cutting plant

Sampling distributed evenly throughout the year

At meat processing plant

Sampling distributed evenly throughout the year

At retail

Sampling distributed evenly throughout the year

Type of specimen taken

At slaughterhouse and cutting plant

Surface of carcass

At meat processing plant

Minced meat, ham, sausages and other

At retail

Meat, minced meat, ham, pate, sausages, meat salads and other

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

The matrices were carcasses, cuts and minced meat of pork. Sampling of pork carcasses was done by means of swabs. The following contamination levels were analyzed: 10 g or 25g (cutting, minced meat of pork) and 600 cm² (pork carcasses).

At meat processing plant

The samples were more than 200 g of meat. The detection of Salmonella has been assessed in 10g or 25g of sample.

At retail

The presence of Salmonella has been assessed in 10g or 25g of sample.

Definition of positive finding

At slaughterhouse and cutting plant

A sample is considered positive in case of detection of Salmonella in the sample.

At meat processing plant

A sample is considered positive in case of detection of Salmonella in the sample.

At retail

A sample is considered positive in case of detection of Salmonella in the sample.

Diagnostic/analytical methods used

At slaughterhouse and cutting plant

Bacteriological method: ISO 6579:2002

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

The rates of salmonella contamination of carcasses and cutting meat of pig estimated in 2011 were statistically similar to 2010.

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

The main serotype found on Salmonella risk farms (fattening pigs), on carcasses and in pig meat is Salmonella Typhimurium.

C. Salmonella spp. in bovine meat and products thereof

Monitoring system

Sampling strategy

At meat processing plant

A monitoring program was organized at meat processing plants and at retail by the FASFC.

Frequency of the sampling

At meat processing plant

Sampling distributed evenly throughout the year

At retail

Sampling distributed evenly throughout the year

Type of specimen taken

At meat processing plant

Minced meat, sausages and other

At retail

Meat, minced meat, pate, sausages, meat salads and other

Methods of sampling (description of sampling techniques)

At meat processing plant

The samples were more than 200 g of meat. The detection of Salmonella has been assessed in 10g or 25g of sample.

At retail

The presence of Salmonella has been assessed in 10g or 25g of sample.

Definition of positive finding

At slaughterhouse and cutting plant

A sample is considered positive in case of detection of Salmonella in the sample.

At meat processing plant

A sample is considered positive in case of detection of Salmonella in the sample.

At retail

A sample is considered positive in case of detection of Salmonella in the sample.

D. Salmonella spp. in food

Monitoring system

Sampling strategy

A monitoring program was organized by the Federal Agency for the Safety of the Food Chain. More than 200 Belgian slaughterhouses, more than 100 meat cutting plants and more than 100 retail trades representative of the Belgian production, were selected for this study. The samples assayed were carcasses, cuts and minced meat from pork, carcasses, cuts and meat preparation from chicken, layer carcasses, beef minced meat and other foodstuffs. Sampling was done by a specially trained staff of the Federal Agency for the Safety of the Food Chain. For most of the matrices, approximately 100 - 300 independent samples were taken per matrix in order to detect a minimal contamination rate of 1% with 95% confidence. Salmonella isolates were serotyped and serotypes Typhimurium, Enteritidis, Virchow and Hadar were lysotyped. The antibiotic resistance profiles were determined for all isolates, and included ceftriaxone, ampicillin, kanamycin, sulfamethoxazole, tetracycline, nalidixic acid, ciprofloxacin, chloramphenicol and trimethoprim.

Frequency of the sampling

Meat samples have been taken every week from the first to the 52nd week.

Samples are taken according to the national control program or in the frame of RASFF, complaints or suspicion.

Type of specimen taken

Meat, milk and dairy products and other foods such as eggs, fishery products, ...

Methods of sampling (description of sampling techniques)

Sampling of pork carcasses was done by means of swabs. The carcass samples of broiler and layer consisted of 10g of neck skin. The other samples were about 200g of meat.

The detection of Salmonella has been assessed in these dilutions: 25g (cutting and minced meat of pork, chicken cuts and beef), 600 cm² (pork carcasses), and 1g (chicken and layer carcasses, chicken meat preparation).

Definition of positive finding

A sample is considered to be positive after biochemical confirmation of one Salmonella spp. in the sample.

Diagnostic/analytical methods used

Five laboratories licensed by the Federal Agency for the Safety of the Food Chain and accredited following ISO 17025 standard analyzed all the samples. The Belgian official method SP-VG-M002 was used for the detection of Salmonella in 25g, 1g or on swabs:

- pre-enrichment in buffered peptone water at 37°C for 16 to 20 h,
- selective enrichment on the semi-solid Diassalm medium at 42°C for 24 h,
- isolation of positive colonies on XLD at 37°C for 24 h,
- confirmation of minimum 2 colonies on TSI at 37°C and miniaturised biochemical tests,
- serotyping and lysotyping were done at the National Reference Center for Salmonella and Shigella (NRCSS-IPH) and at the Institute Pasteur, both located in Brussels, respectively.
- antibiotic resistance determination by IPH Brussels by disk diffusion method.

Preventive measures in place

Controls are made in place by the Federal Agency in case of notification.

Control program/mechanisms

The control program/strategies in place

Notification is mandatory since 1/3/2004 (Ministerial Decree on mandatory notification in the food chain of 22/1/2004). For Salmonella, absence in 25g in ready-to-eat food putted on the market is mandatory.

Laboratories have to inform the Federal Agency in case of a positive sample.

Measures in case of the positive findings or single cases

Measures to be taken in the case of a non-compliant result:

- Notification of the producer or importer
- Possibility of a counter analysis
- Destruction of the non compliant batch or single sample
- Further investigation: additional sampling, possible recall, RASFF, ...

Table Salmonella in poultry meat and products thereof

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|---|-----------------------|--------------------|-------------------|-------------------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Surveillance | PRI 003 | Objective sampling | Official sampling | food sample > neck skin | | Single | 1g | 270 | 3 | | |
| Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance | TRA 200 | Objective sampling | Official sampling | food sample > meat | | Single | 25g | 590 | 22 | | 2 |
| Meat from broilers (Gallus gallus) - fresh - at retail - Surveillance | DIS 819 - DIS 821 | Unspecified | Official sampling | food sample | | Batch | 25 g | 406 | 20 | 2 | |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | TRA 202 | Unspecified | Official sampling | food sample | | Batch | 25 g | 49 | 6 | | |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance | DIS 826 | Unspecified | Official sampling | food sample | | Batch | 25 g | 56 | 1 | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance | TRA 416 | Unspecified | Official sampling | food sample | | Batch | 25 g | 45 | 0 | | |
| Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance | TRA 208 | Unspecified | Official sampling | food sample | | Batch | 25 g | 56 | 0 | | |
| Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at retail - Surveillance | DIS 876 | Unspecified | Official sampling | food sample | | Batch | 25 g | 42 | 0 | | |
| Meat from turkey - fresh - at retail - Surveillance | DIS 821 | Unspecified | Official sampling | food sample | | Batch | 25 g | 14 | 2 | | 1 |
| Meat from turkey - meat products - raw but intended to be eaten cooked - at retail - Surveillance | DIS 876 | Unspecified | Official sampling | food sample | | Batch | 25 g | 17 | 0 | | |

Table Salmonella in poultry meat and products thereof

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|---|-----------------------|------------------------------|-------------------|-------------------------|---------------|---------------|---------------|---------------|-------------------------------------|----------------|----------------|
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance | DIS 801 | Unspecified | Official sampling | food sample | | Batch | 25 g | 47 | 0 | | |
| Meat from other poultry species - carcase - at slaughterhouse - Surveillance (laying hens) | PRI 004 | Objective sampling | Official sampling | food sample > neck skin | | Single | 1g | 444 | 50 | 29 | 3 |
| Meat from poultry, unspecified - fresh - at retail - Surveillance | DIS 821 | Unspecified | Official sampling | food sample | | Batch | 25 g | 5 | 0 | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | TRA 202 | Unspecified | Official sampling | food sample | | Batch | 25 g | 10 | 0 | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at retail - Surveillance | DIS 826 | Unspecified | Official sampling | food sample | | Batch | 25 g | 2 | 0 | | |
| Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance | DIS 801 | Unspecified | Official sampling | food sample | | Batch | 25 g | 4 | 0 | | |
| Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance | TRA 208 | Unspecified | Official sampling | food sample | | Batch | 25 g | 2 | 1 | | |
| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | Other serovars | S. 4,5:i:- | S. 4:i:- | S. 6,7:-:- | S. Bareilly | S. Braenderup | S. Derby | S. Grampian | S. Indiana |
| Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Surveillance | | | | | | 1 | | | | | |
| Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance | | 6 | 1 | | 1 | | | | | | |

Table Salmonella in poultry meat and products thereof

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | Other serovars | S. 4,5:i:- | S. 4:i:- | S. 6,7:-:- | S. Bareilly | S. Braenderup | S. Derby | S. Grampian | S. Indiana |
|---|-------------------|------------------------------|----------------|------------|----------|------------|-------------|---------------|----------|-------------|------------|
| Meat from broilers (Gallus gallus) - fresh - at retail - Surveillance | | 2 | | | | | | 4 | | 1 | 1 |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | | 3 | | | | | | | 1 | | |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | | | | | | 1 | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at retail - Surveillance | | | | | | | | | | | |
| Meat from turkey - fresh - at retail - Surveillance | | | 1 | | | | | | | | |
| Meat from turkey - meat products - raw but intended to be eaten cooked - at retail - Surveillance | | | | | | | | | | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance | | | | | | | | | | | |
| Meat from other poultry species - carcass - at slaughterhouse - Surveillance (laying hens) | | | | | | | 2 | 12 | 1 | | 1 |

Table Salmonella in poultry meat and products thereof

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | Other serovars | S. 4,5:i:- | S. 4:i:- | S. 6,7:-:- | S. Bareilly | S. Braenderup | S. Derby | S. Grampian | S. Indiana |
|--|-------------------|------------------------------|----------------|----------------|----------------|-----------------|--------------------------------|---------------|----------|-------------|------------|
| Meat from poultry, unspecified - fresh - at retail - Surveillance | | | | | | | | | | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | | | | | | | | |
| Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance | | | | | | | | | | | |
| Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance | | | | 1 | | | | | | | |
| | S. Infantis | S. Kentucky | S. Minnesota | S. Paratyphi B | S. Senftenberg | S. Stanleyville | S. Typhimurium var. Copenhagen | S. Virchow | | | |
| Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Surveillance | | 1 | 1 | | | | | | | | |
| Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance | | | 1 | 8 | 1 | | 1 | 1 | | | |
| Meat from broilers (Gallus gallus) - fresh - at retail - Surveillance | 2 | 1 | 1 | 5 | | 1 | | | | | |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | | | | 2 | | | | | | | |

Table Salmonella in poultry meat and products thereof

| | S. Infantis | S. Kentucky | S. Minnesota | S. Paratyphi B | S. Senftenberg | S. Stanleyville | S. Typhimurium var. Copenhagen | S. Virchow |
|---|-------------|-------------|--------------|----------------|----------------|-----------------|--------------------------------|------------|
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | | | | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance | | | | | | | | |
| Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance | | | | | | | | |
| Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at retail - Surveillance | | | | | | | | |
| Meat from turkey - fresh - at retail - Surveillance | | | | | | | | |
| Meat from turkey - meat products - raw but intended to be eaten cooked - at retail - Surveillance | | | | | | | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance | | | | | | | | |
| Meat from other poultry species - carcase - at slaughterhouse - Surveillance (laying hens) | 2 | | | | | | | |
| Meat from poultry, unspecified - fresh - at retail - Surveillance | | | | | | | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | | | | | | | | |

Table Salmonella in poultry meat and products thereof

| | S. Infantis | S. Kentucky | S. Minnesota | S. Paratyphi B | S. Senftenberg | S. Stanleyville | S. Typhimurium var. Copenhagen | S. Virchow |
|---|-------------|-------------|--------------|----------------|----------------|-----------------|--------------------------------|------------|
| Meat from turkey - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | | | | | |
| Meat from turkey - meat products - cooked, ready-to-eat - at retail - Surveillance | | | | | | | | |
| Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance | | | | | | | | |

Table Salmonella in milk and dairy products

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|---|-----------------------|-------------------|-------------------|--------------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance ¹⁾ | PRI 013 | Unspecified | Official sampling | food sample > milk | Domestic | Batch | 25 ml | 40 | 0 | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail - Surveillance ²⁾ | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 22 | 0 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance ³⁾ | TRA 133 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 30 | 0 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance ⁴⁾ | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 30 | 0 | | |
| Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance ⁵⁾ | TRA 123 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 43 | 1 | 1 | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at processing plant - Surveillance ⁶⁾ | TRA 134 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 20 | 0 | | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at retail - Surveillance ⁷⁾ | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 19 | 0 | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm - Surveillance ⁸⁾ | PRI 008 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 10 | 0 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance ⁹⁾ | TRA 134 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 36 | 0 | | |

Table Salmonella in milk and dairy products

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|-------------------|-------------------|-------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance ¹⁰⁾ | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 39 | 0 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm - Surveillance ¹¹⁾ | PRI 008 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 18 | 0 | | |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at processing plant - Surveillance ¹²⁾ | TRA 134 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 57 | 0 | | |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at retail - Surveillance ¹³⁾ | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 59 | 0 | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance ¹⁴⁾ | PRI 008 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 8 | 0 | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance ¹⁵⁾ | TRA 133 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 33 | 0 | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance ¹⁶⁾ | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 33 | 0 | | |
| Cheeses made from sheep's milk - unspecified - made from pasteurised milk - at retail - Surveillance ¹⁷⁾ | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 118 | 0 | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance ¹⁸⁾ | PRI 008 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 10 | 0 | | |

Table Salmonella in milk and dairy products

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|---|-----------------------|-------------------|-------------------|-------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| ¹⁹⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 8 | 0 | | |
| ²⁰⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | DIS 818 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 58 | 0 | | |
| ²¹⁾ Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm - Surveillance | PRI 009 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 35 | 0 | | |
| ²²⁾ Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at farm - Surveillance | PRI 025 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 35 | 0 | | |
| ²³⁾ Dairy products (excluding cheeses) - ice-cream - at farm - Surveillance | PRI 006 - PRI 010 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 48 | 0 | | |
| ²⁴⁾ Dairy products (excluding cheeses) - ice-cream - at retail - Surveillance | DIS 859 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 47 | 0 | | |
| ²⁵⁾ Dairy products (excluding cheeses) - milk powder and whey powder - at border control - Surveillance | IEC 501 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 8 | 0 | | |
| ²⁶⁾ Milk, cows' - raw milk - intended for direct human consumption - at retail - Surveillance | DIS 837 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 ml | 8 | 0 | | |

Table Salmonella in milk and dairy products

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified |
|---|-------------------|------------------------------|
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance | 1) | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail - Surveillance | 2) | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance | 3) | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance | 4) | |
| Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance | 5) | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at processing plant - Surveillance | 6) | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at retail - Surveillance | 7) | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm - Surveillance | 8) | |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance | 9) | |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance | 10) | |

Table Salmonella in milk and dairy products

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified |
|---|-------------------|------------------------------|
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm - Surveillance ¹¹⁾ | | |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at processing plant - Surveillance ¹²⁾ | | |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at retail - Surveillance ¹³⁾ | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance ¹⁴⁾ | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance ¹⁵⁾ | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance ¹⁶⁾ | | |
| Cheeses made from sheep's milk - unspecified - made from pasteurised milk - at retail - Surveillance ¹⁷⁾ | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance ¹⁸⁾ | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance ¹⁹⁾ | | |

Table Salmonella in milk and dairy products

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified |
|---|-------------------|------------------------------|
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance ²⁰⁾ | | |
| Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm - Surveillance ²¹⁾ | | |
| Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at farm - Surveillance ²²⁾ | | |
| Dairy products (excluding cheeses) - ice-cream - at farm - Surveillance ²³⁾ | | |
| Dairy products (excluding cheeses) - ice-cream - at retail - Surveillance ²⁴⁾ | | |
| Dairy products (excluding cheeses) - milk powder and whey powder - at border control - Surveillance ²⁵⁾ | | |
| Milk, cows' - raw milk - intended for direct human consumption - at retail - Surveillance ²⁶⁾ | | |

Comments:

- 1) sampling of 200 ml
- 2) sampling of 200 g
- 3) sampling of > 300 g
- 4) sampling of 200 g
- 5) sampling of > 300 g

Table Salmonella in milk and dairy products

Comments:

- 6) sampling of > 300 g
- 7) sampling of 200 g
- 8) sampling of 200 g
- 9) sampling of > 300 g
- 10) sampling of 200 g
- 11) sampling of 200 g
- 12) sampling of > 300 g
- 13) sampling of 200 g
- 14) sampling of 200 g
- 15) sampling of > 300 g
- 16) sampling of 200 g
- 17) sampling of 200 g
- 18) sampling of 200 g
- 19) sampling of > 300 g
- 20) sampling of 200 g
- 21) sampling of 200 g
- 22) sampling of 200 g
- 23) sampling of 200 g
- 24) sampling of 200 g
- 25) sampling of > 300 g
- 26) sampling of 200 ml

Table Salmonella in milk and dairy products

Table Salmonella in other food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|-------------------|-------------------|-------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Eggs - table eggs - at retail - Surveillance | DIS 868 | Unspecified | Official sampling | food sample | | Batch | 25 g | 118 | 0 | | |
| Egg products - at processing plant - Surveillance | TRA 105 | Unspecified | Official sampling | food sample | Domestic | Batch | 25 g | 114 | 0 | | |
| Fishery products, unspecified - cooked - at processing plant - Surveillance | TRA 402 | Unspecified | Official sampling | food sample | | Batch | 25 g | 45 | 0 | | |
| Fishery products, unspecified - cooked - at retail - Surveillance | DIS 808 | Unspecified | Official sampling | food sample | | Batch | 25 g | 46 | 0 | | |
| Crustaceans - unspecified - cooked - at retail - Surveillance | DIS 852 | Unspecified | Official sampling | food sample | | Batch | 25 g | 46 | 0 | | |
| Live bivalve molluscs - unspecified - at retail - Surveillance | DIS 806 | Unspecified | Official sampling | food sample | | Batch | 25 g | 92 | 1 | | |
| Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - at retail - Surveillance | DIS 862 | Unspecified | Official sampling | food sample | | Batch | 25 g | 59 | 1 | | |
| Infant formula - dried - intended for infants below 6 months - at retail - Surveillance | DIS 803 | Unspecified | Official sampling | food sample | | Batch | 25 g | 86 | 0 | | |
| Juice - fruit juice - unpasteurised - at retail - Surveillance | DIS 872 | Unspecified | Official sampling | food sample | | Batch | 25 ml | 74 | 0 | | |
| Bakery products - desserts - at retail - Surveillance | DIS 849 | Unspecified | Official sampling | food sample | | Batch | 25 g | 68 | 0 | | |
| Bakery products - desserts - containing raw eggs - at retail - Surveillance | DIS 861 | Unspecified | Official sampling | food sample | | Batch | 25 g | 43 | 0 | | |
| Chocolate - at retail - Surveillance | DIS 834 | Unspecified | Official sampling | food sample | | Batch | 25 g | 46 | 0 | | |

Table Salmonella in other food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|-------------------|-------------------|-------------|--------------------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Confectionery products and pastes - chocolate-based product - at retail - Surveillance | DIS 835 | Unspecified | Official sampling | food sample | | Batch | 25 g | 46 | 0 | | |
| Crustaceans - unspecified - cooked - at processing plant - Surveillance | TRA 403 | Unspecified | Official sampling | food sample | | Batch | 25 g | 45 | 0 | | |
| Crustaceans - unspecified - raw - at processing plant - Surveillance | TRA 403 | Unspecified | Official sampling | food sample | | Batch | 10 g | 45 | 1 | | |
| Crustaceans - unspecified - raw - at retail - Surveillance | DIS 852 | Unspecified | Official sampling | food sample | | Batch | 25 g | 46 | 0 | | |
| Egg products - at retail - Surveillance | DIS 885 | Unspecified | Official sampling | food sample | | Batch | 25 g | 20 | 0 | | |
| Fishery products, unspecified - raw - at retail - Surveillance (could be consumed raw (ingrediënt in carpaccio, sushi, ...)) | DIS 873 | Unspecified | Official sampling | food sample | | Batch | 25 g | 90 | 0 | | |
| Frogs leg - at border control - Surveillance | IEC 016 | Unspecified | Official sampling | food sample | Imported from outside EU | Batch | 25 g | 17 | 10 | 2 | |
| Fruits - whole - at retail - Surveillance (mango) | DIS 841 | Unspecified | Official sampling | food sample | | Batch | 25 g | 10 | 0 | | |
| Fruits - whole - at retail - Surveillance (melon) | DIS 841 | Unspecified | Official sampling | food sample | | Batch | 25 g | 114 | 0 | | |
| Fruits - whole - at retail - Surveillance (red berries) | DIS 855 | Unspecified | Official sampling | food sample | | Batch | 25 g | 46 | 0 | | |
| Fruits and vegetables - pre-cut - at retail - Surveillance | DIS 813 | Unspecified | Official sampling | food sample | | Batch | 25 g | 60 | 1 | | |
| Infant formula - dried - intended for infants below 6 months - at processing plant - Surveillance | TRA 171 | Unspecified | Official sampling | food sample | | Batch | 25 g | 10 | 0 | | |
| Infant formula - ready-to-eat - at hospital or care home - Surveillance | DIS 839 | Unspecified | Official sampling | food sample | | Batch | 25 g | 110 | 0 | | |

Table Salmonella in other food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|---|-----------------------|-------------------|-------------------|-------------|--------------------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Molluscan shellfish - cooked - at processing plant - Surveillance | TRA 401 | Unspecified | Official sampling | food sample | | Batch | 25 g | 45 | 0 | | |
| Other products of animal origin - gelatin and collagen - at border control - Surveillance | IEC 019 | Unspecified | Official sampling | food sample | | Batch | 25 g | 10 | 0 | | |
| Other products of animal origin - gelatin and collagen - at processing plant - Surveillance | TRA 357 | Unspecified | Official sampling | food sample | | Batch | 25 g | 4 | 0 | | |
| Other products of animal origin - gelatin and collagen - at retail - Surveillance | DIS 892 | Unspecified | Official sampling | food sample | | Batch | 25 g | 87 | 0 | | |
| Spices and herbs - dried - at retail - Surveillance | DIS 828 | Unspecified | Official sampling | food sample | | Batch | 25 g | 59 | 0 | | |
| Spices and herbs - fresh - at retail - Surveillance | DIS 841 | Unspecified | Official sampling | food sample | | Batch | 25 g | 88 | 0 | | |
| Surimi - at border control - Surveillance | IEC 004 | Unspecified | Official sampling | food sample | Imported from outside EU | Batch | 25 g | 17 | 0 | | |
| Vegetables - at retail - Surveillance | DIS 841 | Unspecified | Official sampling | food sample | | Batch | 25 g | 359 | 0 | | |

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 3.10:r:- | S. 4,5:b | S. Dabou | S. Hvitvingfoss | S. Malstatt | S. Panama | S. Paratyphi B | S. Wandsworth |
|---|-------------------|------------------------------|-------------|----------|----------|-----------------|-------------|-----------|----------------|---------------|
| Eggs - table eggs - at retail - Surveillance | | | | | | | | | | |
| Egg products - at processing plant - Surveillance | | | | | | | | | | |
| Fishery products, unspecified - cooked - at processing plant - Surveillance | | | | | | | | | | |
| Fishery products, unspecified - cooked - at retail - Surveillance | | | | | | | | | | |

Table Salmonella in other food

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 3.10:r:- | S. 4,5:b | S. Dabou | S. Hvitvingfoss | S. Malstatt | S. Panama | S. Paratyphi B | S. Wandsworth |
|--|-------------------|------------------------------|-------------|----------|----------|-----------------|-------------|-----------|----------------|---------------|
| Crustaceans - unspecified - cooked - at retail - Surveillance | | | | | | | | | | |
| Live bivalve molluscs - unspecified - at retail - Surveillance | | | | | | | 1 | | | |
| Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - at retail - Surveillance | | 1 | | | | | | | | |
| Infant formula - dried - intended for infants below 6 months - at retail - Surveillance | | | | | | | | | | |
| Juice - fruit juice - unpasteurised - at retail - Surveillance | | | | | | | | | | |
| Bakery products - desserts - at retail - Surveillance | | | | | | | | | | |
| Bakery products - desserts - containing raw eggs - at retail - Surveillance | | | | | | | | | | |
| Chocolate - at retail - Surveillance | | | | | | | | | | |
| Confectionery products and pastes - chocolate-based product - at retail - Surveillance | | | | | | | | | | |
| Crustaceans - unspecified - cooked - at processing plant - Surveillance | | | | | | | | | | |
| Crustaceans - unspecified - raw - at processing plant - Surveillance | | | 1 | | | | | | | |
| Crustaceans - unspecified - raw - at retail - Surveillance | | | | | | | | | | |

Table Salmonella in other food

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 3.10:r:- | S. 4,5:b | S. Dabou | S. Hvitvingfoss | S. Malstatt | S. Panama | S. Paratyphi B | S. Wandsworth |
|--|-------------------|------------------------------|-------------|----------|----------|-----------------|-------------|-----------|----------------|---------------|
| Egg products - at retail - Surveillance | | | | | | | | | | |
| Fishery products, unspecified - raw - at retail - Surveillance (could be consumed raw (ingrediënt in carpaccio, sushi, ...)) | | | | | | | | | | |
| Frogs leg - at border control - Surveillance | | | | 1 | 1 | 2 | | 1 | 2 | 1 |
| Fruits - whole - at retail - Surveillance (mango) | | | | | | | | | | |
| Fruits - whole - at retail - Surveillance (melon) | | | | | | | | | | |
| Fruits - whole - at retail - Surveillance (red berries) | | | | | | | | | | |
| Fruits and vegetables - pre-cut - at retail - Surveillance | | 1 | | | | | | | | |
| Infant formula - dried - intended for infants below 6 months - at processing plant - Surveillance | | | | | | | | | | |
| Infant formula - ready-to-eat - at hospital or care home - Surveillance | | | | | | | | | | |
| Molluscan shellfish - cooked - at processing plant - Surveillance | | | | | | | | | | |
| Other products of animal origin - gelatin and collagen - at border control - Surveillance | | | | | | | | | | |
| Other products of animal origin - gelatin and collagen - at processing plant - Surveillance | | | | | | | | | | |
| Other products of animal origin - gelatin and collagen - at retail - Surveillance | | | | | | | | | | |
| Spices and herbs - dried - at retail - Surveillance | | | | | | | | | | |

Table Salmonella in other food

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 3.10:r:- | S. 4,5:b | S. Dabou | S. Hvitvingfoss | S. Malstatt | S. Panama | S. Paratyphi B | S. Wandsworth |
|---|-------------------|------------------------------|-------------|----------|----------|-----------------|-------------|-----------|----------------|---------------|
| Spices and herbs - fresh - at retail - Surveillance | | | | | | | | | | |
| Surimi - at border control - Surveillance | | | | | | | | | | |
| Vegetables - at retail - Surveillance | | | | | | | | | | |

Table Salmonella in red meat and products thereof

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|--------------------|-------------------|-----------------------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Meat from pig - carcass - at slaughterhouse - Surveillance | PRI 002 | Objective sampling | Official sampling | food sample > carcass swabs | Domestic | Single | 600 cm2 | 535 | 58 | | 17 |
| Meat from pig - fresh - at processing plant - Surveillance | TRA 306 | Objective sampling | Official sampling | food sample > meat | Domestic | Single | 25g | 151 | 4 | 1 | |
| Meat from pig - fresh - at retail - Surveillance | DIS 802 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 14 | 0 | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail - Surveillance | DIS 823 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 12 | 2 | | |
| Meat from pig - meat preparation - intended to be eaten raw - at retail - Surveillance | DIS 874 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 10 | 0 | | |
| Meat from pig - meat preparation - intended to be eaten cooked - at retail - Surveillance | DIS 875 | Objective sampling | Official sampling | food sample | Unknown | Batch | 10 g | 46 | 1 | 0 | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail - Surveillance | DIS 823 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 44 | 0 | | |
| Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance | DIS 875 | Objective sampling | Official sampling | food sample | Unknown | Batch | 10 g | 11 | 0 | | |
| Meat from bovine animals - meat preparation - intended to be eaten raw - at retail - Surveillance | DIS 874 - DIS 815 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 284 | 0 | | |
| Meat from bovine animals - meat products - fermented sausages - at processing plant - Surveillance | TRA 302 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 2 | 0 | | |
| Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | TRA 312 | Objective sampling | Official sampling | food sample | Unknown | Batch | 10 g | 59 | 1 | | |

Table Salmonella in red meat and products thereof

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|---|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Meat from bovine animals and pig - meat preparation - intended to be eaten raw - at processing plant - Surveillance | TRA 316 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 60 | 2 | | |
| Meat from bovine animals and pig - meat products - at processing plant - Surveillance | TRA 302 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 2 | 0 | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail - Surveillance | DIS 823 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 4 | 0 | | |
| Meat from other animal species or not specified - at retail - Surveillance (pitta meat) | DIS 883 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 82 | 0 | | |
| Meat from other animal species or not specified - fresh - at retail - Surveillance | DIS 802 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 7 | 0 | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | TRA 416 - TRA 300 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 90 | 0 | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at retail - Surveillance | DIS 801 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 95 | 0 | | |
| Meat from pig - meat products - fermented sausages - at processing plant - Surveillance | TRA 302 - TRA 317 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 41 | 0 | | |
| Meat from pig - meat products - fermented sausages - at retail - Surveillance | DIS 801 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 38 | 0 | | |
| Meat from pig - meat products - raw ham - at processing plant - Surveillance | TRA 317 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 42 | 0 | | |
| Meat from pig - meat products - raw ham - at retail - Surveillance | DIS 801 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 46 | 0 | | |

Table Salmonella in red meat and products thereof

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. Agona | S. Bovismorbificans | S. Brandenburg | S. Derby | S. Infantis | S. Isangi | S. Livingstone | S. London | S. Mbandaka |
|--|-------------------|------------------------------|----------|---------------------|----------------|----------|-------------|-----------|----------------|-----------|-------------|
| Meat from pig - carcass - at slaughterhouse - Surveillance | | 4 | 1 | | 4 | 5 | 1 | 1 | 5 | 2 | 1 |
| Meat from pig - fresh - at processing plant - Surveillance | | 1 | | | | 1 | | | | | |
| Meat from pig - fresh - at retail - Surveillance | | | | | | | | | | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail - Surveillance | | 1 | | | | 1 | | | | | |
| Meat from pig - meat preparation - intended to be eaten raw - at retail - Surveillance | | | | | | | | | | | |
| Meat from pig - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | 1 | | | | | | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail - Surveillance | | | | | | | | | | | |
| Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | | | | | | | | |
| Meat from bovine animals - meat preparation - intended to be eaten raw - at retail - Surveillance | | | | | | | | | | | |
| Meat from bovine animals - meat products - fermented sausages - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | | | | | | 1 | | | | | |

Table Salmonella in red meat and products thereof

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. Agona | S. Bovismorbificans | S. Brandenburg | S. Derby | S. Infantis | S. Isangi | S. Livingstone | S. London | S. Mbandaka |
|---|-------------------|------------------------------|----------|---------------------|----------------|----------|-------------|-----------|----------------|-----------|-------------|
| Meat from bovine animals and pig - meat preparation - intended to be eaten raw - at processing plant - Surveillance | | 1 | | | | 1 | | | | | |
| Meat from bovine animals and pig - meat products - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail - Surveillance | | | | | | | | | | | |
| Meat from other animal species or not specified - at retail - Surveillance (pitta meat) | | | | | | | | | | | |
| Meat from other animal species or not specified - fresh - at retail - Surveillance | | | | | | | | | | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at retail - Surveillance | | | | | | | | | | | |
| Meat from pig - meat products - fermented sausages - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from pig - meat products - fermented sausages - at retail - Surveillance | | | | | | | | | | | |
| Meat from pig - meat products - raw ham - at processing plant - Surveillance | | | | | | | | | | | |
| Meat from pig - meat products - raw ham - at retail - Surveillance | | | | | | | | | | | |

Table Salmonella in red meat and products thereof

| | S. Newport | S. Ohio | S. Typhimurium var. Copenhagen | S. Typhimurium, monophasic |
|--|------------|---------|---|----------------------------------|
| Meat from pig - carcass - at slaughterhouse - Surveillance | | 1 | 9 | 7 |
| Meat from pig - fresh - at processing plant - Surveillance | 1 | | | |
| Meat from pig - fresh - at retail - Surveillance | | | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail - Surveillance | | | | |
| Meat from pig - meat preparation - intended to be eaten raw - at retail - Surveillance | | | | |
| Meat from pig - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail - Surveillance | | | | |
| Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance | | | | |
| Meat from bovine animals - meat preparation - intended to be eaten raw - at retail - Surveillance | | | | |
| Meat from bovine animals - meat products - fermented sausages - at processing plant - Surveillance | | | | |
| Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - at processing plant - Surveillance | | | | |

Table Salmonella in red meat and products thereof

| | S. Newport | S. Ohio | S. Typhimurium var. Copenhagen | S. Typhimurium, monophasic |
|---|------------|---------|---|----------------------------------|
| Meat from bovine animals and pig - meat preparation - intended to be eaten raw - at processing plant - Surveillance | | | | |
| Meat from bovine animals and pig - meat products - at processing plant - Surveillance | | | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail - Surveillance | | | | |
| Meat from other animal species or not specified - at retail - Surveillance (pitta meat) | | | | |
| Meat from other animal species or not specified - fresh - at retail - Surveillance | | | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | | | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at retail - Surveillance | | | | |
| Meat from pig - meat products - fermented sausages - at processing plant - Surveillance | | | | |
| Meat from pig - meat products - fermented sausages - at retail - Surveillance | | | | |
| Meat from pig - meat products - raw ham - at processing plant - Surveillance | | | | |
| Meat from pig - meat products - raw ham - at retail - Surveillance | | | | |

Table Salmonella in red meat and products thereof

2.1.3 Salmonella in animals

A. Salmonella spp. in Gallus Gallus - breeding flocks

Monitoring system

Sampling strategy

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

Breeding flocks are sampled as day-old chicks, at the age of 4 and 16 weeks and every 2 weeks during production. An official control takes place at 16 weeks, 22 weeks, 46 weeks and 58 or 62 weeks. A specific Salmonella control is performed 4 times a year in the hatcheries by the owner.

Frequency of the sampling

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

Every flock is sampled

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

As day old chicks and at the age of 4 and 16 weeks

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

Every 2 weeks

Type of specimen taken

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

Internal linings of delivery boxes

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

Socks/ boot swabs

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

Socks/ boot swabs

Methods of sampling (description of sampling techniques)

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

At the farm, pieces (5 by 5 cm) of the inner linings of delivery boxes are taken of each flock. 2 samples are taken, one for the hen-chicks and one for the cock-chicks. Each sample consists of 20 pieces of interlining. The two samples are analyzed separately. On voluntary basis, 20 living hen-chicks and 20 living cock-chicks are brought to the laboratory for serological testing.

The samples have to be taken the day of delivery, the samples have to reach the lab within 24 hours of sampling.

In the hatcheries, pooled samples from dead-in-the-shell chicks and of fluff and meconium, are taken by the owner every 3 months. These are sent to an accredited laboratory.

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

Samples are taken by the owner at 4 weeks and by one of the animal health organizations at 16 weeks, both in accordance with regulation (EU) Nr. 200/2010.

Breeding flocks: Production period

All samples are taken in accordance with Regulation (EC) Nr. 200/2010.

Case definition

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

A sample is considered positive if *Salmonella* Enteritidis, Typhimurium, Hadar, Infantis, Virchow or Paratyphi B var. Java is isolated. A flock is considered positive as soon as one sample is positive.

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

A sample is considered positive if *Salmonella* Enteritidis, Typhimurium, Hadar, Infantis, Virchow or Paratyphi B var. Java is isolated. A flock is considered positive as soon as one sample is positive. If the farmer requests a confirmation sampling, new samples (5 feces and 2 dust samples) are taken by or under the supervision of the competent authority. The result of the confirmation sampling is binding.

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

A sample is considered positive if *Salmonella* Enteritidis, Typhimurium, Hadar, Infantis, Virchow or Paratyphi B var. Java is isolated. A flock is considered positive as soon as one sample is positive. If the farmer requests a confirmation sampling, new samples (5 feces and 2 dust samples) are taken by or under the supervision of the competent authority. The result of the confirmation sampling is binding.

Diagnostic/analytical methods used

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

Bacteriological method: ISO 6579:2002 annex D

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

Bacteriological method: ISO 6579:2002 annex D

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

Bacteriological method: ISO 6579:2002 annex D in accordance with Regulation (EC) Nr. 200/2010.

Vaccination policy

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

Vaccination against *Salmonella* Enteritidis is compulsory for parent breeding flocks and prohibited for grand parent flocks. Vaccination against *Salmonella* Typhimurium is strongly recommended for parent breeding flocks and prohibited for grandparent flocks.

Other preventive measures than vaccination in place

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

All breeding flocks must have a Health Qualification A. The qualification consists of minimal requirements for infrastructure, management, hygiene and biosecurity measures.

Control program/mechanisms

The control program/strategies in place

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

The national control programme for *Salmonella* in breeding flocks is based on Regulations (EG) Nrs. 2160/2003, 200/2010 and 1177/2006.

Measures in case of the positive findings or single cases

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

- 1) treatment of flock with antimicrobials is forbidden;
- 2) Incubation of hatching eggs is prohibited;
- 3) Incubated hatching eggs are removed and destroyed;
- 4) Not yet incubated hatching eggs may be pasteurized and put on the market for human consumption;
- 5) Positive breeding flocks are slaughtered within the month;
- 6) Cleaning and disinfection of housing after removal of the breeding flock;

- 7) After cleaning and disinfection, a hygienogram is performed;
- 8) Sampling of the house (swab control) for the detection of Salmonella;
- 8) A new flock is admitted if Salmonella can not be found after cleaning and disinfection, otherwise the disinfection and swab control is repeated.

Notification system in place

Zoonotic Salmonella is notifiable since the first of January 2004. Notification is done by phone, fax or electronically to the Federal Agency for the Safety of the Food Chain. Laboratories and farmers are submitted to the notification.

Results of the investigation

Salmonella was not found in day old chicks (110 batches). During rearing (317 flocks), *S. Agona* was found in 2 flocks, *S. Minnesota* and *S. O3,19:-:-* were each found in 1 flock. In addition, 2 flocks were considered negative for *Salmonella Enteritidis* after confirmation sampling.

During production, of the 557 flocks (grandparent and parent flocks), 1 flock was positive for *S. Enteritidis*, 1 flock for *S. Paratyphi B* var. *Java* and 12 flocks were positive for serotypes not included in the programme. In addition, 1 flock was considered negative for *Salmonella Enteritidis* after confirmation sampling, 1 flock for *Salmonella Paratyphi B* var. *Java* and 4 flocks for *Salmonella Typhimurium*. These flocks do not count as positive flocks.

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

During rearing, the number of positive flocks (all *Salmonella* spp.) decreased from 6 in 2008 to 3 in 2009, increased to 7 in 2010 after which a decrease is seen to 4 in 2011 and 2012.

During production, the number of positive flocks for *Salmonella* serotypes for which a target is set fluctuates between 0 and 3 in recent years. In 2012, 1 positive flocks was found. The source of infection could not be traced. The number of positive flocks of other serotypes has decreased slightly from 16 in 2011 to 12 in 2012. A positive point is the decrease in the number of suspicious flocks where the presence of *Salmonella* could not be confirmed from 11 in 2011 tot 6 in 2012. All but one (*S. O6,8:Z10:-*) serotypes found in breeders were also found in broilers.

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

The total number of reported human *Salmonella* isolates decreased in 2012 to 3.164 (3.231 in 2011) mainly due to a decrease of the number of *Salmonella Typhimurium* cases to 1.699 (2.030 in 2011). For the first time in several years there was a slight increase in the number of reported human *Salmonella Enteritidis* cases seen in 2012. *S. Enteritidis*, *S. Minnesota* and *S. Paratyphi B* were found in breeders, broilers, broiler meat at the level of transformation and/or distribution and human cases.

B. Salmonella spp. in Gallus Gallus - broiler flocks

Monitoring system

Sampling strategy

Broiler flocks

The official surveillance program for broilers in accordance with Regulations (EC) Nos 2160/2003 and 646/2007 started in 2009. It is compulsory to sample all flocks on farms with a capacity of 200 or more birds as day-old chicks and in the last three weeks before slaughter.

Frequency of the sampling

Broiler flocks: Day-old chicks

Each 'batch' of day-old chicks that enters the farm must be sampled in the hatchery or when arriving on the farm

Broiler flocks: Before slaughter at farm

Every flock is sampled in the last 3 weeks before slaughter.

Broiler flocks: At slaughter (flock based approach)

Sampling distributed evenly throughout the year

Type of specimen taken

Broiler flocks: Day-old chicks

Internal linings of delivery boxes or hatcher basket liners

Broiler flocks: Before slaughter at farm

Socks/ boot swabs

Broiler flocks: At slaughter (flock based approach)

Organs: caeca

Methods of sampling (description of sampling techniques)

Broiler flocks: Day-old chicks

Pieces of inner linings of the delivery boxes are sampled by the owner in the same way as for breeding flocks. The samples have to reach an accredited laboratory within 48 hours of sampling.

Broiler flocks: Before slaughter at farm

All flocks are sampled, by the owner, within 3 weeks before slaughter. The sampling is performed in accordance with Regulation (EU) n° 200/2012. Samples have to reach an accredited laboratory within 48 hours.

Broiler flocks: At slaughter (flock based approach)

The intact caeca of 10 poultry from the same flock are taken at the slaughterhouse with the aim to determine the load of Salmonella spp. entering the slaughterhouse.

Case definition

Broiler flocks: Day-old chicks

A sample is considered positive if a Salmonella spp. is isolated. A flock is considered positive as soon as one sample is positive.

Broiler flocks: Before slaughter at farm

A sample is considered positive if a Salmonella spp. is isolated. A flock is considered positive as soon as one sample is positive.

Diagnostic/analytical methods used

Broiler flocks: Day-old chicks

Bacteriological method: ISO 6579:2002 annex D

Broiler flocks: Before slaughter at farm

Bacteriological method: ISO 6579:2002 annex D

Broiler flocks: At slaughter (flock based approach)

Bacteriological method: ISO 6579:2002 annex D

Vaccination policy

Broiler flocks

There is no vaccination policy for broiler flocks.

Other preventive measures than vaccination in place

Broiler flocks

Minimal requirements are laid down for holdings with at least 200 broilers on infrastructure, management, hygiene and bio-security issues in the framework of the sanitary qualification.

Control program/mechanisms

The control program/strategies in place

Broiler flocks

The sanitary qualification for farms with more than 200 birds contains preventive measures (infrastructure, management, hygiene and biosecurity) for the control of Salmonella.

Following measures are taken when a flock is positive for Salmonella spp:

1° logistic slaughter of the flock at the end of production.

2° mandatory cleaning and disinfection.

3° hygienogram after disinfection and after the house has dried up.

4° swab control on the presence of Salmonella before restocking the house.

If the following flock is positive for the same serotype of Salmonella, the disinfection must be performed by an external company.

When the same serotype of Salmonella is found at three consecutive times, the farm must be evaluated on biosecurity and hygiene by the farm veterinarian and necessary measures must be taken. An epidemiological investigation and/or tests are performed to find the source of the infection.

It is at all times prohibited to treat for Salmonella with antibiotics.

Measures in case of the positive findings or single cases

Broiler flocks: Day-old chicks

It is prohibited to treat the flock for Salmonella with antibiotics.

Broiler flocks: Before slaughter at farm

See 'the control program/strategies' in place.

Notification system in place

Zoonotic Salmonella is notifiable since the first of January 2004. Notification is done by phone, fax or by e-mail to the Federal Agency for the Safety of the Food Chain. Farmers and laboratories are obliged to notify.

Results of the investigation

5.593 batches of day-old chicks were sampled, 26 were positive for Salmonella spp. of which 11 for S. Enteritidis, 2 for S. Typhimurium and 9 for S. Minnesota.

8.739 flocks of broilers were sampled in the last 3 weeks of production. 301 flocks were positive for *Salmonella* spp. of which 33 for *S. Typhimurium* and 17 for *S. Enteritidis*. This is the highest number of *S. Enteritidis* positive flocks since the start of the programme. The main serotype found was the same as in 2011, *Salmonella Paratyphi B* (incl. var. Java).

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

The prevalence of all serotypes in day old chicks has decreased compared to 2011. However there was a high number of batches of day-old chicks positive for *Salmonella Enteritidis*. There was still a higher number of *S. Minnesota* positive flocks due to positive breeders in 2011.

The prevalence in broiler flocks of *Salmonella Enteritidis* and *Salmonella Typhimurium* has increased compared with the results of 2011. The increase of the number of *S. Paratyphi B* (incl. var. Java) positive flocks continued in 2012.

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

The total number of reported human *Salmonella* isolates decreased in 2012 to 3.164 (3.231 in 2011) mainly due to a decrease of the number of *Salmonella Typhimurium* cases to 1.699 (2.030 in 2011). For the first time in several years there was a slight increase in the number of reported human *Salmonella Enteritidis* cases seen in 2012. *S. Enteritidis*, *S. Minnesota* and *S. Paratyphi B* were found in breeders, broilers, broiler meat at the level of transformation and/or distribution and in human cases.

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

Monitoring system

Sampling strategy

Laying hens flocks

All laying hen flocks on farms with at least 200 laying hens are under the Salmonella control programme. Flocks are sampled by the owner at the age of day old chicks, 16, 24, 39 and 54 weeks and in the last 3 weeks of production. When a flock has a second production cycle, the sampling continues.

Frequency of the sampling

Laying hens: Day-old chicks

Every flock is sampled.

Laying hens: Rearing period

At the age of 16 weeks.

Laying hens: Production period

Every 15 weeks.

Laying hens: Before slaughter at farm

Every flock is sampled.

Laying hens: At slaughter

Sampling is distributed evenly throughout the year.

Type of specimen taken

Laying hens: Day-old chicks

Internal linings of delivery boxes

Laying hens: Rearing period

Socks/ boot swabs

Laying hens: Production period

Socks/ boot swabs in accordance with Regulation (EU) nr. 517/2011.

Laying hens: Before slaughter at farm

Socks/ boot swabs

Laying hens: At slaughter

Other: caeca

Methods of sampling (description of sampling techniques)

Laying hens: Day-old chicks

At the farm, 20 pieces (5 by 5 cm) of the inner linings of delivery boxes are taken of each batch. On voluntary basis, 20 living hen-chicks are brought to the laboratory for serological testing.

The samples have to reach an accredited laboratory within 48 hours of sampling.

Laying hens: Rearing period

Samples are taken in accordance with Regulation (EU) No. 517/2011.

Laying hens: Production period

Samples are taken in accordance with Regulation (EU) No. 517/2011.

Laying hens: Before slaughter at farm

Samples are taken in accordance with Regulation (EU) No. 517/2011.

Case definition

Laying hens: Day-old chicks

A sample is considered positive if *S. Enteritidis* or *S. Typhimurium* is isolated. A flock is considered positive as soon as one sample is positive.

Laying hens: Rearing period

A sample is considered positive if *S. Enteritidis* or *S. Typhimurium* is isolated. A flock is considered positive as soon as one sample is positive.

Laying hens: Production period

A sample is considered positive if *S. Enteritidis* or *S. Typhimurium* is isolated. A flock is considered positive as soon as one sample is positive.

Laying hens: Before slaughter at farm

A sample is considered positive if *Salmonella* is isolated. A flock is considered positive as soon as one sample is positive.

Diagnostic/analytical methods used

Laying hens: Day-old chicks

Bacteriological method: ISO 6579:2002 annex D

Laying hens: Rearing period

Bacteriological method: ISO 6579:2002 annex D

Laying hens: Production period

Bacteriological method: ISO 6579:2002 annex D in accordance with Regulation (EU) No. 517/2011.

Laying hens: Before slaughter at farm

Bacteriological method: ISO 6579:2002 annex D

Vaccination policy

Laying hens flocks

Vaccination against *Salmonella Enteritidis* is compulsory and vaccination against *Salmonella Typhimurium* is strongly recommended.

Other preventive measures than vaccination in place

Laying hens flocks

Minimal requirements for infrastructure, management, hygiene and bio-security issues are laid down under health qualification B*.

Control program/mechanisms

The control program/strategies in place

Laying hens flocks

The national control program for *Salmonella* in laying hens is based on Regulations (EC) Nos. 2160/2003, 1177/2006 and (EU) No. 517/2011.

Recent actions taken to control the zoonoses

The farmer has the possibility to perform an extended swabcontrol after cleaning and disinfection. This way the possible source of contamination may be found.

Measures in case of the positive findings or single cases

Laying hens flocks

- 1) Pasteurization of eggs before human consumption.
- 2) Cleaning and disinfection of housing after removal of the positive flock.
- 3) Swab sampling of housing before entering a new flock. If the result is positive for Salmonella, cleaning and disinfection has to be repeated.

Notification system in place

Zoonotic Salmonella is notifiable by the farmer and the laboratory since the first of January 2004.

Notification is done by phone, fax or electronic to the Federal Agency for the Safety of the Food Chain.

Results of the investigation

One batch of day-old chicks was positive for Salmonella Enteritidis.

During rearing, 445 flocks were sampled of which 4 were positive for Salmonella spp. (1 each for S. Enteritidis, S. Agona, S. Livingstone and S. Senftenberg).

During production, 764 flocks were sampled of which 36 were positive for Salmonella (15 for S. Enteritidis and 2 for S. Typhimurium).

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

The prevalence for all Salmonella serotypes has decreased compared to 2011. The prevalence of Salmonella Enteritidis and Salmonella Typhimurium remains the same.

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

The total number of reported human Salmonella isolates decreased in 2012 to 3.164 (3.231 in 2011) mainly due to a decrease in the number of Salmonella Typhimurium cases to 1.699 (2.030 in 2011). For the first time in several years there was a slight increase in the number of reported human Salmonella Enteritidis seen in 2012. At the level of the slaughterhouse and cutting plants, Salmonella Enteritidis is the main serotype found. However a decrease in Salmonella spp and in specific S. Enteritidis is also seen here. In Belgium, all layers are vaccinated against Salmonella Enteritidis. The period given protection by the vaccine may be too short to cover the stress during transport.

D. Salmonella spp. in bovine animals

Monitoring system

Sampling strategy

There was no official monitoring of cattle in 2012 in Belgium. Isolates were diagnostic samples sent to the NRL Salmonella, animal health, for serotyping.

Vaccination policy

In 2012, no vaccine was authorized for the vaccination of cattle against salmonellosis.

Results of the investigation

Results from the NRL Salmonella, AH indicate that the number of Salmonella isolates from cattle (n=47) has slightly increased as compared to 2011 (n=36). Most frequently found serotypes are Typhimurium (55.3%) and Dublin (23.4%). The proportion of S. Dublin isolates seems to diminish as compared to former years.

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

Data from the NRL Salmonella, AH show that in cattle, S. Dublin used to be the principal serotype between 2002 and 2010, but declined in 2010 and 2011 to the same low level as S. Typhimurium. In 2012 Typhimurium is clearly the most prevalent isolated serotype from cattle samples

E. Salmonella spp. in pigs

Monitoring system

Sampling strategy

Breeding herds

For diagnostic purposes and in the framework of research projects, pigs are sampled and isolates are sent to the NRL Salmonella, Animal Health for serotyping and resistance analysis.

Multiplying herds

For diagnostic purposes and in the framework of research projects, pigs are sampled and isolates are sent to the NRL Salmonella, AH for serotyping and resistance analysis.

Fattening herds

Every 4 months, 12 blood samples are taken for the serological surveillance of Salmonella on farms with at least 31 fattening pigs.

Samples are taken for bacteriological detection on farms that are considered risk herds for Salmonella.

For diagnostic purposes and in the framework of research projects, pigs are sampled and isolates are sent to the NRL Salmonella, AH for serotyping and resistance analysis.

Frequency of the sampling

Fattening herds at farm

Fattening herds with at least 31 fattening pigs are sampled every 4 months. Samples are taken for bacteriological detection on farms that are considered risk herds for Salmonella.

Type of specimen taken

Fattening herds at farm

On farm level, blood samples are taken for serological analysis. On risk herds, overshoes are used for bacteriological detection.

Methods of sampling (description of sampling techniques)

Fattening herds at farm

Depending on the capacity of the farm, 10 to 12 blood samples are taken of the fattening pigs. The blood samples are taken of all ages.

On risk herds, 4 samples are taken. Each sample consists of one pair of overshoes.

Case definition

Fattening herds at farm

Risk farms are identified as farms with a mean S/P ratio higher than 0,6 for 3 consecutive sampling rounds.

Diagnostic/analytical methods used

Fattening herds at farm

An indirect LPS--Salmonella ELISA is used for the detection of antibodies against certain Salmonella serogroups. The ISO 6576 : 2002 annex D method is used for bacteriological detection, the White-Kauffmann-LeMinor scheme for serotyping.

Vaccination policy

Breeding herds

No vaccine is authorized in Belgium for the vaccination of pigs against Salmonella.

Multiplying herds

No vaccine is authorized in Belgium for the vaccination of pigs against Salmonella.

Fattening herds

No vaccine is authorized in Belgium for the vaccination of pigs against Salmonella.

Control program/mechanisms

The control program/strategies in place

Fattening herds

Risk farms are identified as farms with a mean S/P ratio equal or higher than 0,6 for 3 consecutive sampling rounds. Following mandatory measures are applied on risk farms:

- 1) completion of a checklist on bio-security and other measures;
- 2) formulating and implementing a herd specific salmonella action plan, based on the result of the checklist;
- 3) bacteriological evaluation of the farm.

Measures in case of the positive findings or single cases

The measures are explained under control strategy in place.

Notification system in place

Zoonotic Salmonella is notifiable by operators and laboratories since the first of January 2004. Notification is done by phone, fax or electronic to the Federal Agency of the Safety of the Food Chain.

Results of the investigation

5.666 herds with fattening pigs were sampled in 2012. 1.998 herds had at least once a mean S/P ratio of more than 0,6. 106 herds were classified as Salmonella risk herds for the first time and 57 herds were classified as a Salmonella risk herd for a second or consecutive time.

In the framework of bacteriological detection of Salmonella on risk herds, 417 samples were taken on 95 farms. Salmonella could be isolated on 40% of the farms. De main serotypes found were Salmonella Typhimurium (26 herds) and S. O4,(5),12:i:- (18 herds).

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

Laboratory findings from the NRL Salmonella, AH concerning isolates that were sent in for serotyping in 2011 are available. The number of pig strains tested in 2011 was considerably lower as compared to 2010 (n=203 and 465, respectively). Mostly S. Typhimurium isolates were found (55.2%; 67.5% in 2010), but also S. Derby (6.9%; 7.3% in 2010). As for S. Typhimurium isolates from pigs, half are classic variant O5+. Almost all Salmonella pig strains typed as Group B were monophasic 4[5]:i:-.

During the last 12 years (2000-2011), S. Typhimurium absolutely is the most prevalent serotype among pig isolates, representing about 55% of pig Salmonella in 2011. Serotype Derby always is the second most important serotype with about 7% of the pig strains in 2010 and 2011.

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

The main serotypes found on Salmonella risk farms (fattening pigs), on carcasses and in pig meat is Salmonella Typhimurium and its monophasic variant. The increase of Salmonella positive carcasses and pig meat did not translate in a increase of the number of human cases.

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

Monitoring system

Sampling strategy

Meat production flocks

On farms with a capacity of 5000 or more birds (Health Qualification B), all flocks are sampled within 3 weeks before slaughter.

Frequency of the sampling

Meat production flocks: Day-old chicks

Control 'at entry' is not mandatory.

Meat production flocks: Before slaughter at farm

All flocks are sampled within 3 weeks before slaughter.

Type of specimen taken

Meat production flocks: Before slaughter at farm

2 pair of overshoes are taken and pooled to one sample.

Methods of sampling (description of sampling techniques)

Meat production flocks: Before slaughter at farm

On farms with more than 5000 birds (Health Qualification B), all flocks are sampled, by the owner, within 3 weeks before slaughter. 2 pair of overshoes, pooled to 1 sample, are taken. The samples have to reach an accredited laboratory within 48 hours.

Case definition

Meat production flocks: Day-old chicks

A flock is positive if Salmonella spp. is found.

Meat production flocks: Before slaughter at farm

A flock is positive if Salmonella spp. is found.

Diagnostic/analytical methods used

Meat production flocks: Before slaughter at farm

The bacteriological method used is the ISO 6579:2002 annex D method.

Vaccination policy

Breeding flocks

There is no vaccination policy.

Meat production flocks

There is no vaccination policy.

Other preventive measures than vaccination in place

Meat production flocks

If the holding has a capacity of 5000 birds or more, Health Qualification B is mandatory, A is optional. Both include hygienic infrastructural and management obligations.

Measures in case of the positive findings or single cases

Samples are taken for monitoring purposes only. Flocks are slaughtered at the end of the day (logistic slaughter) if samples taken before slaughter are positive.

Notification system in place

A notification system for zoonotic Salmonella is in place since 1 January 2004. The notification can be done by e-mail, fax or phone.

Results of the investigation

All 5 meat production flocks sampled in 2012 were negative for Salmonella spp.

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

Salmonella spp are seldom found in flocks of meat ducks.

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

Seen the very low number of meat production flocks of ducks in Belgium, there is very little to no impact on human cases.

Additional information

In 2012, there were no breeding flocks of ducks in Belgium.

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

Monitoring system

Methods of sampling (description of sampling techniques)

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

Additional information

In 2012 there were no breeding and meat production flocks of geese in Belgium.

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

Monitoring system

Sampling strategy

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

There are no professional breeding turkey flocks in Belgium.

Meat production flocks

All flocks are sampled within three weeks of slaughter.

Frequency of the sampling

Meat production flocks: Before slaughter at farm

Every flock is sampled

Type of specimen taken

Meat production flocks: Before slaughter at farm

Socks/ boot swabs

Methods of sampling (description of sampling techniques)

Meat production flocks: Before slaughter at farm

All flocks are sampled, by the owner, within 3 weeks before slaughter conform Regulation (EC) n° 584/2008.

Case definition

A flock is positive if Salmonella is found.

Monitoring system

Case definition

Meat production flocks: Before slaughter at farm

A flock is positive if Salmonella spp. is found.

Diagnostic/analytical methods used

Meat production flocks: Day-old chicks

Bacteriological method: ISO 6579:2002 annex D.

Meat production flocks: Before slaughter at farm

Bacteriological method: ISO 6579:2002 annex D.

Vaccination policy

Meat production flocks

There is no vaccination policy for meat production flocks.

Other preventive measures than vaccination in place

Meat production flocks

Health Qualification B* includes infrastructural, management hygiene and bio-security obligations.

Measures in case of the positive findings or single cases

Following measures are taken when a flock is positive for Salmonella spp for the first time:

1° the flock is at the end of the production cycle slaughtered at the end of the day (logistic slaughter);

2° there is an obligation to clean and disinfect the house;

3° a hygienogram is performed after disinfection and after the house has dried up;

4° a swab control on the presence of Salmonella is performed before restocking the house;

If the following flock is positive for the same serotype of Salmonella, the same measures are taken and the disinfection must be performed by an external company.

When the same serotype of Salmonella is found at three consecutive times, besides the above mentioned measures, the farm must be evaluated on biosecurity and hygiene by the farm veterinarian and necessary measures must be taken. An epidemiological investigation and/or tests are performed to find the source of the infection.

It is at all times prohibited to treat for Salmonella with antibiotics.

Notification system in place

Zoonotic Salmonella is notifiable since 1 January 2004. Notification is done by phone, fax or e-mail.

Results of the investigation

There are no turkey breeding flocks in Belgium.

163 meat production flocks were tested in 2012. There was one flock positive for S. O4,12:-:-.

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

There is a very low incidence of Salmonella in turkey meat production flocks in Belgium.

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

Seen the limited number of meatturkey flocks slaughtered in Belgium and the low incidence of Salmonella in these flocks, there is little to no relevance of the findings in these flocks to human cases.

Table Salmonella in breeding flocks of Gallus gallus

| | No of flocks under control programme | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Target Verification | Sampling unit | Units tested | Total units positive for Salmonella | S. Enteritidis |
|---|--------------------------------------|-----------------------|-------------------|--------------------------------|---|---------------|---------------------|---------------|--------------|-------------------------------------|----------------|
| Gallus gallus (fowl) - breeding flocks, unspecified - adult - Control and eradication programmes | 557 | DGZ/ARSIA | Census | Official and industry sampling | environmental sample > boot swabs | Domestic | yes | Flock | 557 | 14 | 1 |
| Gallus gallus (fowl) - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes ¹⁾ | 110 | DGZ/ARSIA | Census | Industry sampling | environmental sample > delivery box liner | | no | Flock | 110 | 0 | |
| Gallus gallus (fowl) - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes | 317 | DGZ/ARSIA | Census | Official and industry sampling | environmental sample > boot swabs | Domestic | no | Flock | 317 | 4 | |

| | S. Hadar | S. Infantis | S. Typhimurium | S. Virchow | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 1,3,19:-:- | S. 6,8;z10:- | S. Agona | S. Cerro | S. Idikan |
|---|----------|-------------|----------------|------------|-------------------|------------------------------|---------------|--------------|----------|----------|-----------|
| Gallus gallus (fowl) - breeding flocks, unspecified - adult - Control and eradication programmes | | | | | | | | 1 | 1 | 2 | 1 |
| Gallus gallus (fowl) - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes ¹⁾ | | | | | | | | | | | |
| Gallus gallus (fowl) - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes | | | | | | | 1 | | 2 | | |

Table Salmonella in breeding flocks of Gallus gallus

| | S. Kottbus | S. Livingstone | S. Mbandaka | S. Minnesota | S. Paratyphi B | S. Senftenberg |
|---|------------|----------------|-------------|--------------|----------------|----------------|
| Gallus gallus (fowl) - breeding flocks, unspecified - adult - Control and eradication programmes | 2 | 1 | 2 | 1 | 1 | 1 |
| Gallus gallus (fowl) - breeding flocks, unspecified - day-old chicks - at farm - Control and eradication programmes ¹⁾ | | | | | | |
| Gallus gallus (fowl) - breeding flocks, unspecified - during rearing period - at farm - Control and eradication programmes | | | | 1 | | |

Comments:

¹⁾ A flock equals a group of day-old chicks delivered on 1 truck and from a single hatchery.

Table Salmonella in other birds

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium | S. 1,4,[5],12:i:- |
|------------------------------------|------------------------------|-------------------|-------------------|-----------------------------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|-------------------|
| Guinea fowl - at farm - Monitoring | DGZ/ARSIA | Census | Industry sampling | environmental sample > boot swabs | Domestic | Flock | 17 | 0 | | | |
| | Salmonella spp., unspecified | | | | | | | | | | |
| Guinea fowl - at farm - Monitoring | | | | | | | | | | | |

Table Salmonella in other animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium | S. 1,4,[5],12:i:- |
|--|------------------------------|--------------------|-------------------|-----------------------------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|-------------------|
| Pigs - fattening pigs - at farm - Monitoring | DGZ/ARSIA | Selective sampling | Industry sampling | environmental sample > boot swabs | Domestic | Holding | 95 | 57 | | 26 | |
| | Salmonella spp., unspecified | S. 4,12:i:- | S. 4,5,12:i:- | S. 4,5:i:- | S. 4:i:- | S. Anatum | S. Derby | S. Gloucester | S. Infantis | S. Livingstone | S. Rideau |
| Pigs - fattening pigs - at farm - Monitoring | 1 | 11 | 8 | 1 | 3 | 2 | 3 | 1 | 1 | 3 | 1 |
| | S. Rissen | | | | | | | | | | |
| Pigs - fattening pigs - at farm - Monitoring | 2 | | | | | | | | | | |

Footnote:

The analyses on the presence of the O1-antigen was not performed.

On 6 farms with fattening pigs, 2 different serotypes were found:

* 2 farms with S. O4,5,12:i:- and S. O4,12:i:-;

* 1 farm with S. O4,12:i:- and S. Rideau;

* 1 farm with S. Typhimurium and S. Livingstone;

* 1 farm with S. Typhimurium and S. O4,12:i:-;

* 1 farm with S. typhimurium and S. O4,5,12:i:-.

Table Salmonella in other poultry

| | No of flocks under control programme | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Target Verification | Sampling unit | Units tested | Total units positive for Salmonella | S. Enteritidis |
|--|--------------------------------------|------------------------|----------------------|--------------------------------|--|---------------|---------------------|---------------|--------------|-------------------------------------|----------------|
| Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes ¹⁾ | 247 | DGZ/ARSI/Lavetan | Census | Industry sampling | environmental sample > delivery box liner | | no | Flock | 247 | 1 | 1 |
| Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes | 315 | DGZ/ARSI/Lavetan | Census | Industry sampling | environmental sample > boot swabs | Domestic | no | Flock | 315 | 3 | |
| Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes | 764 | DGZ/ARSI/FASFC/Lavetan | Census | Official and industry sampling | environmental sample > boot swabs and dust | Domestic | yes | Flock | 764 | 36 | 15 |
| Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes ²⁾ | 5593 | DGZ/ARSI/Lavetan | Census | Industry sampling | environmental sample > delivery box liner | Domestic | no | Flock | 5593 | 26 | 11 |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 8739 | FASFC | Objective sampling | Official sampling | environmental sample > boot swabs | Domestic | yes | Flock | 82 | 3 | 1 |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 8739 | DGZ/ARSI/Lavetan | Census | Industry sampling | environmental sample > boot swabs | Domestic | yes | Flock | 8734 | 300 | 17 |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 8739 | DGZ/ARSI/FASFC/Lavetan | Census | Official and industry sampling | environmental sample > boot swabs | Domestic | yes | Flock | 8739 | 301 | 17 |
| Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes | 163 | DGZ/ARSI/FASFC | Census | Official and industry sampling | environmental sample > boot swabs | Domestic | yes | Flock | 163 | 1 | |
| Ducks - meat production flocks | 5 | DGZ/ARSI/Lavetan | Convenience sampling | Industry sampling | environmental sample > boot swabs | Domestic | no | Flock | 5 | 0 | |

Table Salmonella in other poultry

| | S. Typhimurium | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | Not typeable | Other serovars | S. 13,23:i:- | S. 3,19:-:- | S. 4,12:-:- | S. 4,5:i:- | S. 6,7:d:- | S. 6,7:z29 |
|--|----------------|-------------------|------------------------------|----------------|----------------|--------------|-------------|-------------|------------|------------|-------------|
| Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes ¹⁾ | | | | | | | | | | | |
| Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes | | | | | | | | | | | |
| Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes | 2 | | | 1 | 1 | | | | 1 | 1 | |
| Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes ²⁾ | 2 | | 3 | | | | | | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | | | | | | | | | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 30 | 4 | | 3 | 1 | 1 | 3 | 1 | | | 2 |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 30 | 4 | | 3 | 1 | 1 | 3 | 1 | | | 2 |
| Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes | | | | | | | | 1 | | | |
| Ducks - meat production flocks | | | | | | | | | | | |
| | S. Agona | S. Anatum | S. Braenderup | S. Brandenburg | S. Cerro | S. Dublin | S. Give | S. Hadar | S. Havana | S. Idikan | S. Infantis |
| Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes ¹⁾ | | | | | | | | | | | |

Table Salmonella in other poultry

| | S. Agona | S. Anatum | S. Braenderup | S. Brandenburg | S. Cerro | S. Dublin | S. Give | S. Hadar | S. Havana | S. Idikan | S. Infantis |
|--|--------------|-------------|---------------|----------------|----------------|-------------|-------------|--------------|---------------|------------|-------------|
| Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes | 1 | | | | | | | | | | |
| Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes | 1 | | 2 | | | | | | | 1 | 2 |
| Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes ²⁾ | | | | | | | | | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | | | | | | | | | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 7 | 4 | | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 7 |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 7 | 4 | | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 7 |
| Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes | | | | | | | | | | | |
| Ducks - meat production flocks | | | | | | | | | | | |
| | S. Jerusalem | S. Kentucky | S. Kottbus | S. Lexington | S. Livingstone | S. Llandoff | S. Mbandaka | S. Minnesota | S. Montevideo | S. Newport | S. Ouakam |
| Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes ¹⁾ | | | | | | | | | | | |
| Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes | | | | | 1 | | | | | | |

Table Salmonella in other poultry

| | S. Jerusalem | S. Kentucky | S. Kottbus | S. Lexington | S. Livingstone | S. Llandoff | S. Mbandaka | S. Minnesota | S. Montevideo | S. Newport | S. Ouakam |
|---|--------------|-------------|------------|--------------|----------------|-------------|-------------|--------------|---------------|------------|-----------|
| Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes | | | | | 4 | | 1 | | | | 1 |
| Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes ²⁾ | | | 1 | | | | | 9 | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | | | | | | | | | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 1 | 3 | 2 | 6 | 14 | 1 | 7 | 64 | 2 | 1 | 1 |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 1 | 3 | 2 | 6 | 14 | 1 | 7 | 64 | 2 | 1 | 1 |
| Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes | | | | | | | | | | | |
| Ducks - meat production flocks | | | | | | | | | | | |

| | S. Panama | S. Paratyphi B | S. Rissen | S. Saintpaul | S. Senftenberg | S. Tennessee | S. Umbilo | S. Yoruba | S. group O:4 |
|--|-----------|----------------|-----------|--------------|----------------|--------------|-----------|-----------|--------------|
| Gallus gallus (fowl) - laying hens - day-old chicks - Control and eradication programmes ¹⁾ | | | | | | | | | |
| Gallus gallus (fowl) - laying hens - during rearing period - Control and eradication programmes | | | | | 1 | | | | |
| Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes | | 1 | | | 2 | 2 | | | |

Table Salmonella in other poultry

| | S. Panama | S. Paratyphi B | S. Rissen | S. Saintpaul | S. Senftenberg | S. Tennessee | S. Umbilo | S. Yoruba | S. group O:4 |
|---|-----------|----------------|-----------|--------------|----------------|--------------|-----------|-----------|--------------|
| Gallus gallus (fowl) - broilers - day-old chicks - Control and eradication programmes ²⁾ | | | | | | | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | | 1 | | | 1 | | | | |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 1 | 77 | 21 | 1 | 5 | 2 | 1 | 1 | 3 |
| Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes | 1 | 77 | 21 | 1 | 6 | 2 | 1 | 1 | 3 |
| Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes | | | | | | | | | |
| Ducks - meat production flocks | | | | | | | | | |

Comments:

¹⁾ A flock = a group of birds delivered on 1 truck and from 1 hatchery.

²⁾ A flock = a group of birds delivered on 1 truck and from 1 hatchery.

Footnote:

All categories:

* The analyses on the presence of the O1-antigen was not performed.

In the category layers production:

* 36 flocks were positive for Salmonella of which 2 flocks were positive for 2 serotypes (S. Livingstone and S. Ouakam - S. Enteritidis and a not-typable strain);

* the presence of Salmonella Enteritidis and Salmonella Typhimurium could not be confirmed in respectively 4 and 1 flocks. These flocks were not considered as positive flocks and are not included in the table.

In the category broilers - before slaughter:

* three flocks were positive for 2 serotypes:

- 1 flock was positive for S. Typhimurium and for its monophasic variant O4,12:i:-;

- 1 flock was positive for S. Typhimurium and S. Paratyphi B (var. Java);

Table Salmonella in other poultry

- 1 flock was positive for S. Paratyphi B (var. Java) and S. O4,12:-:2.

* Of the 77 flocks positive for S. Paratyphi B, 70 flocks were positive for the variant Java, 3 for S. Paratyphi B and 4 for both.

* for 2 flocks Salmonella was found in samples taken by the food business operator and in samples taken by the competent authority.

2.1.4 Salmonella in feedingstuffs

Table Salmonella in compound feedingstuffs

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Compound feedingstuffs for cattle - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 91 | | | |
| Compound feedingstuffs for fish - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 5 | | | |
| Compound feedingstuffs for horses - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 27 | 1 | | |
| Compound feedingstuffs for pigs - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 89 | 1 | | |
| Compound feedingstuffs for poultry (non specified) - final product - in total - Surveillance ¹⁾ | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 16 | 1 | | |
| Compound feedingstuffs for poultry - breeders - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 115 | | | |
| Compound feedingstuffs for poultry - broilers - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 52 | 3 | | |
| Compound feedingstuffs for poultry - laying hens - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 38 | 1 | | |
| Compound feedingstuffs for poultry - pigeons - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 3 | | | |
| Compound feedingstuffs for rabbits - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 10 | | | |
| Compound feedingstuffs for sheep - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 18 | | | |

Table Salmonella in compound feedingstuffs

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|------------------------------|-------------------|-------------|----------------|---------------|---------------|----------------|-------------------------------------|----------------|----------------|
| Compound feedingstuffs for turkeys - final product - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 13 | | | |
| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 4,12:i:- | S. 4,12:i:- | S. Brandenburg | S. Derby | S. Kottbus | S. Livingstone | S. Mbandaka | S. Minnesota | S. Ohio |
| Compound feedingstuffs for cattle - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for fish - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for horses - final product - in total - Surveillance | | | 1 | | | | | | | | |
| Compound feedingstuffs for pigs - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for poultry (non specified) - final product - in total - Surveillance | ¹⁾ | | | | | | | | 1 | | |
| Compound feedingstuffs for poultry - breeders - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for poultry - broilers - final product - in total - Surveillance | | | | | | | 1 | 1 | | 1 | |
| Compound feedingstuffs for poultry - laying hens - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for poultry - pigeons - in total - Surveillance | | | | | | | | | | | |

Table Salmonella in compound feedingstuffs

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 4,12:-:- | S. 4,12:i:- | S. Brandenburg | S. Derby | S. Kottbus | S. Livingstone | S. Mbandaka | S. Minnesota | S. Ohio |
|--|-------------------|------------------------------|----------------|-------------|----------------|----------|------------|----------------|-------------|--------------|---------|
| Compound feedingstuffs for rabbits - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for sheep - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for turkeys - final product - in total - Surveillance | | | | | | | | | | | |
| | S. Ouakam | S. Paratyphi B | S. Senftenberg | | | | | | | | |
| Compound feedingstuffs for cattle - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for fish - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for horses - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for pigs - final product - in total - Surveillance | 1 | | | | | | | | | | |
| Compound feedingstuffs for poultry (non specified) - final product - in total - Surveillance | ¹⁾ | | | | | | | | | | |
| Compound feedingstuffs for poultry - breeders - final product - in total - Surveillance | | | | | | | | | | | |
| Compound feedingstuffs for poultry - broilers - final product - in total - Surveillance | | | | | | | | | | | |

Table Salmonella in compound feedingstuffs

| | S. Ouakam | S. Paratyphi B | S. Senftenberg |
|--|-----------|----------------|----------------|
| Compound feedingstuffs for poultry - laying hens - final product - in total - Surveillance | | | 1 |
| Compound feedingstuffs for poultry - pigeons - in total - Surveillance | | | |
| Compound feedingstuffs for rabbits - final product - in total - Surveillance | | | |
| Compound feedingstuffs for sheep - final product - in total - Surveillance | | | |
| Compound feedingstuffs for turkeys - final product - in total - Surveillance | | | |

Comments:

¹⁾ samples for goose (1), pheasant (7), ducks (5), ostrich (2) and not specified (1)

Table Salmonella in feed material of animal origin

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|--------------------|-------------------|-------------|--------------------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Feed material of land animal origin - animal fat - in total - Surveillance ¹⁾ | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 37 | 1 | | 1 |
| Feed material of land animal origin - at feed mill - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 6 | | | |
| Feed material of land animal origin - blood meal - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 1 | | | |
| Feed material of land animal origin - blood products - at feed mill - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 5 | | | |
| Feed material of land animal origin - blood products - in total - Surveillance | IEC401 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 1 | | | |
| Feed material of land animal origin - bone meal - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 1 | | | |
| Feed material of land animal origin - egg powder - at feed mill - Surveillance | IEC401 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 20 | | | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance ²⁾ | IEC404 | Objective sampling | Official sampling | feed sample | Intra EU trade | Batch | 25g | 88 | 7 | | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance | IEC402 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 8 | | | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance ³⁾ | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 19 | 7 | 1 | |
| Feed material of land animal origin - poultry offal meal - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 9 | | | |
| Feed material of marine animal origin - fish meal - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 10 | | | |

Table Salmonella in feed material of animal origin

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 4,5:i:- | S. 6,7:-:- | S. 6,7:z29 | S. Alachua | S. Carno | S. Cerro | S. Idikan | S. Infantis | S. Isangi |
|--|-------------------|------------------------------|------------|------------|------------|------------|----------|----------|-----------|-------------|-----------|
| Feed material of land animal origin - animal fat - in total - Surveillance ¹⁾ | | | | | | | | | | | |
| Feed material of land animal origin - at feed mill - Surveillance | | | | | | | | | | | |
| Feed material of land animal origin - blood meal - in total - Surveillance | | | | | | | | | | | |
| Feed material of land animal origin - blood products - at feed mill - Surveillance | | | | | | | | | | | |
| Feed material of land animal origin - blood products - in total - Surveillance | | | | | | | | | | | |
| Feed material of land animal origin - bone meal - in total - Surveillance | | | | | | | | | | | |
| Feed material of land animal origin - egg powder - at feed mill - Surveillance | | | | | | | | | | | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance ²⁾ | | | 1 | | | 1 | 1 | 1 | | 1 | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance | | | | | | | | | | | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance ³⁾ | | | | 1 | 1 | | | | 1 | | 1 |
| Feed material of land animal origin - poultry offal meal - in total - Surveillance | | | | | | | | | | | |
| Feed material of marine animal origin - fish meal - in total - Surveillance | | | | | | | | | | | |

Table Salmonella in feed material of animal origin

| | S. Livingstone | S. Mbandaka | S. Montevideo | S. Ohio | S. Rissen | S. Soerenga | Salmonella spp. |
|--|-------------------|-------------|------------------|---------|-----------|-------------|--------------------|
| Feed material of land animal origin - animal fat - in total - Surveillance ¹⁾ | | | | | | | |
| Feed material of land animal origin - at feed mill - Surveillance | | | | | | | |
| Feed material of land animal origin - blood meal - in total - Surveillance | | | | | | | |
| Feed material of land animal origin - blood products - at feed mill - Surveillance | | | | | | | |
| Feed material of land animal origin - blood products - in total - Surveillance | | | | | | | |
| Feed material of land animal origin - bone meal - in total - Surveillance | | | | | | | |
| Feed material of land animal origin - egg powder - at feed mill - Surveillance | | | | | | | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance ²⁾ | 1 | 1 | 1 | | | | 1 |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance | | | | | | | |
| Feed material of land animal origin - meat and bone meal - in total - Surveillance ³⁾ | 2 | | 1 | 1 | 1 | 1 | 2 |
| Feed material of land animal origin - poultry offal meal - in total - Surveillance | | | | | | | |
| Feed material of marine animal origin - fish meal - in total - Surveillance | | | | | | | |

Table Salmonella in feed material of animal origin

Comments:

- 1) S.Typhimurium 05+
- 2) a) One sample with two serotypes S.Carno and S.04,5:i:- b) One sample with three serotypes S.Mbandaka, S.Livingstone and S.Cerro Salmonella spp = 1x 06,7:M,T
- 3) a) one sample with two serotypes S.06,7:-:- and S.06,7:z29 b) one sample with two serotypes S.Livingstone and S.Isangi c) One sample with three serotypes S.Rissen, S.Idikan and S.Ohio d) One sample with three serotypes S.Livingstone, S.Enteritidis and SERUM OMD (Salmonella spp) Salmonella spp= 1x S.4:z:1,7 and 1x Serum OMD

Table Salmonella in other feed matter

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|---|-----------------------|--------------------|-------------------|-------------|--------------------------|---------------|---------------|--------------|-------------------------------------|----------------|----------------|
| Feed material of cereal grain origin - barley derived - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 5 | | | |
| Feed material of cereal grain origin - maize derived - in total - Surveillance | IEC207 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 1 | | | |
| Feed material of cereal grain origin - maize derived - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 4 | | | |
| Feed material of cereal grain origin - oat derived - at feed mill - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 3 | | | |
| Feed material of cereal grain origin - other cereal grain derived - in total - Surveillance ¹⁾ | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 28 | | | |
| Feed material of cereal grain origin - other cereal grain derived - in total - Surveillance ²⁾ | IEC207 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 14 | | | |
| Feed material of cereal grain origin - wheat derived - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 13 | | | |
| Feed material of oil seed or fruit origin - groundnut derived - in total - Surveillance | IEC207 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 1 | | | |
| Feed material of oil seed or fruit origin - linseed derived - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 7 | 1 | | |
| Feed material of oil seed or fruit origin - other oil seeds derived - in total - Surveillance | IEC207 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 3 | | | |
| Feed material of oil seed or fruit origin - rape seed derived - in total - Surveillance | IEC207 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 6 | | | |
| Feed material of oil seed or fruit origin - rape seed derived - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 7 | 1 | | |

Table Salmonella in other feed matter

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Salmonella | S. Enteritidis | S. Typhimurium |
|--|-----------------------|------------------------------|-------------------|-------------|--------------------------|---------------|----------------|--------------|-------------------------------------|----------------|----------------|
| Feed material of oil seed or fruit origin - soya (bean) derived - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 12 | | | |
| Feed material of oil seed or fruit origin - soya (bean) derived - in total - Surveillance | IEC207 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 3 | | | |
| Feed material of oil seed or fruit origin - sunflower seed derived - in total - Surveillance | IEC207 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 2 | | | |
| Feed material of oil seed or fruit origin - sunflower seed derived - in total - Surveillance | TRA055 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 1 | | | |
| Pet food - dog snacks (pig ears, chewing bones) - in total - Surveillance | IEC401 | Objective sampling | Official sampling | feed sample | Imported from outside EU | Batch | 25g | 24 | 1 | | |
| Pet food - final product - in total - Surveillance ³⁾ | TRA082 | Objective sampling | Official sampling | feed sample | Domestic | Batch | 25g | 35 | 5 | 1 | |
| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 4,12:i:- | S. 4,12:i:- | S. Brandenburg | S. Derby | S. Livingstone | S. Mbandaka | S. Ohio | S. Paratyphi B | S. Tennessee |
| Feed material of cereal grain origin - barley derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of cereal grain origin - maize derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of cereal grain origin - maize derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of cereal grain origin - oat derived - at feed mill - Surveillance | | | | | | | | | | | |

Table Salmonella in other feed matter

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 4,12:i:- | S. 4,12:i:- | S. Brandenburg | S. Derby | S. Livingstone | S. Mbandaka | S. Ohio | S. Paratyphi B | S. Tennessee |
|---|-------------------|------------------------------|-------------|-------------|----------------|----------|----------------|-------------|---------|----------------|--------------|
| Feed material of cereal grain origin - other cereal grain derived - in total - Surveillance | 1) | | | | | | | | | | |
| Feed material of cereal grain origin - other cereal grain derived - in total - Surveillance | 2) | | | | | | | | | | |
| Feed material of cereal grain origin - wheat derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of oil seed or fruit origin - groundnut derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of oil seed or fruit origin - linseed derived - in total - Surveillance | | | | | | | 1 | | | | |
| Feed material of oil seed or fruit origin - other oil seeds derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of oil seed or fruit origin - rape seed derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of oil seed or fruit origin - rape seed derived - in total - Surveillance | | | | | | | | | | | 1 |
| Feed material of oil seed or fruit origin - soya (bean) derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of oil seed or fruit origin - soya (bean) derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of oil seed or fruit origin - sunflower seed derived - in total - Surveillance | | | | | | | | | | | |
| Feed material of oil seed or fruit origin - sunflower seed derived - in total - Surveillance | | | | | | | | | | | |

Table Salmonella in other feed matter

| | S. 1,4,[5],12:i:- | Salmonella spp., unspecified | S. 4,12:-:- | S. 4,12:i:- | S. Brandenburg | S. Derby | S. Livingstone | S. Mbandaka | S. Ohio | S. Paratyphi B | S. Tennessee |
|---|-------------------|------------------------------|-------------|-------------|----------------|----------|----------------|-------------|---------|----------------|--------------|
| Pet food - dog snacks (pig ears, chewing bones) - in total - Surveillance | | | | | | | | | 1 | | |
| Pet food - final product - in total - Surveillance ³⁾ | | | 1 | 1 | 1 | 1 | | 1 | | 2 | |

Comments:

¹⁾ not specified (25), malt (1), spelt (2)

²⁾ not specified (12), millet (2)

³⁾ One sample with 2 serotypes: S.Paratyphi B var. Java and S.O4,12:-:- One sample with 3 serotypes: S.Paratyphi B var. Java and S.Derby and S.Brandenburg

2.1.5 Antimicrobial resistance in Salmonella isolates

A. Antimicrobial resistance in Salmonella in cattle

Sampling strategy used in monitoring

Type of specimen taken

Laboratory findings of the NRL Salmonella, animal health.

Methods of sampling (description of sampling techniques)

Diagnostic samples sent to NRL.

See: "Antimicrobial resistance of Salmonella spp. in animals - All animals" for more details.

Control program/mechanisms

The control program/strategies in place

There was no monitoring programme for Salmonella in cattle in 2011.

Results of the investigation

A total of 18 Salmonella isolates were tested for their susceptibility. Eight were S. Dublin, six S. Typhimurium, two S. Enteritidis and one each of S. Anatum and S. Rissen.

Six strains were fully susceptible, which represents 33,3%. Most resistance was found against sulfonamides (50,0%), ampicillin (44,4%), nalidixic acid (38,9%), streptomycin and tetracycline (both 33,3%), but also against chloramphenicol (16,7%), florphenicol (11,1%) and ceftiofur (11.1%).

B. Antimicrobial resistance in Salmonella in pigs

Sampling strategy used in monitoring

Type of specimen taken

Laboratory findings of the NRL Salmonella, animal health.

Methods of sampling (description of sampling techniques)

Diagnostic samples sent to the NRL Salmonella, animal health.

See: "Antimicrobial resistance of Salmonella spp. in animals - All animals" for more details.

Results of the investigation

A total of 103 Salmonella isolates from pigs were tested for their susceptibility. Most of the strain tested were S. Typhimurium (n=68), S. Derby (n=8) and S. Livingstone (n=3).

18.4 % of strains were fully susceptible. Most resistance was found against sulfonamides (68.9%), ampicillin (64.1%), tetracycline (62.1%) and streptomycin (55.3%).

C. Antimicrobial resistance in Salmonella in poultry

Sampling strategy used in monitoring

Type of specimen taken

Laboratory findings of the NRL Salmonella, animal health.

Methods of sampling (description of sampling techniques)

Analysis of diagnostic samples sent to the NRL Salmonella, animal health.

See: "Antimicrobial resistance of Salmonella spp. in animals - All animals" for more details.

Results of the investigation

Three hundred fifty-six poultry Salmonella isolates were tested for their susceptibility. Of these, 56 were S. Enteritidis, 93 Paratyphi B, 42 S. Typhimurium and 30 S. Minnesota.

Hundred ninety-six strains were fully susceptible, which represents 55.1%. Most resistance was found against ampicillin (36.8%), sulfonamides (28.4%), nalidixic acid (27.8%), trimetoprim-sulfonamides (22.5%), streptomycin (20.5%) and tetracyclines (17.1%).

D. Antimicrobial resistance in Salmonella in foodstuff derived from pigs

Sampling strategy used in monitoring

Procedures for the selection of isolates for antimicrobial testing

All strains isolated during the zoonosis monitoring program were sent to the Institute of Public Health for serotyping and determination of antimicrobial resistance.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Minimum Inhibitory Concentrations (MIC) were determined by the broth dilution method using Sensititre EUMVS2 panel, as recommended by the EURL antibiotic resistance. The antimicrobials reported are listed in the table below, as well as the breakpoints used for the interpretation of the results. Interpretation was according to CLSI and using epidemiological cut-off values from EUCAST. Quality control was performed by using an *Escherichia coli* ATCC 25922 strain.

Antimicrobial Breakpoints

(µg / ml)

Ampicillin 4

Cefotaxim 0.5

Ceftazidim 2

Chloramphenicol 16

Ciprofloxacin 0.06

Colistin 2

Florfenicol 16

Gentamycin 2

Kanamycin 8

Nalidixic acid 16

Streptomycin 32

Sulfamethoxazol 256

Tetracycline 8

Trimethoprim 2

Results of the investigation

In total 157 *Salmonella* strains from pork were tested for their antimicrobial susceptibility.

This includes strains from carcasses and cut meats. The resistance to cefotaxim, ceftazidim, ciprofloxacin, gentamicin, kanamycin and nalidixic acid was low (< 2%) however, high resistance to ampicillin (53%) streptomycin (48%) sulphamethoxazole (54%) and tetracycline (41%) was observed. This represents an increase between 13-15% for the three latter compared to 2011. The percentage of strains sensible to all antibiotics were 49% which represents a decrease of 5% compared to last year. Of note, the increase of resistance of isolates to more than four antibiotics reaching values up to 21% which is an increase of 6% compared to 2011.

Salmonella Typhimurium was the predominant isolated serotype (67%), similar to last year. Resistance to ampicillin (73%) streptomycin (65%) sulphamethoxazole (69%) and tetracycline (52%) was observed.

Twenty nine percent of all isolates were multidrug resistant. Of note the strong decrease of isolates sensible to all antibiotics, reaching a value of only 14% compared to 38% in 2011. This is of particular concern.

E. Antimicrobial resistance in Salmonella in foodstuff derived from poultry

Sampling strategy used in monitoring

Procedures for the selection of isolates for antimicrobial testing

During 2012, 286 strains of *Salmonella enterica* isolated during the zoonosis monitoring program were sent to the Scientific Institute of Public Health for serotyping and determination of antimicrobial resistance. Different food matrices were sampled, mainly poultry (carcasses from broilers and spent hens, chicken parts and meat preparations) and pork (carcasses and cut meats). Other matrices where *Salmonella* was isolated were ready-to-eat meals, meat, meat preparations, frog's legs, pudding, liquid egg product, ham and dry sausage. Since 2011, the AMR was performed on the most prevalent ten serotypes.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Minimum Inhibitory Concentrations (MIC) were determined by the broth dilution method using Sensititre EUMVS2 panel, as recommended by the EURL antibiotic resistance. The antimicrobials reported are listed in the table below, as well as the breakpoints used for the interpretation of the results. Interpretation was according to CLSI and using epidemiological cut-off values from EUCAST. Quality control was performed by using an *Escherichia coli* ATCC 25922 strain.

Antimicrobial Breakpoints

($\mu\text{g} / \text{ml}$)

Ampicillin 4

Cefotaxim 0.5

Ceftazidim 2

Chloramphenicol 16

Ciprofloxacin 0.06

Colistin 2

Florfenicol 16

Gentamycin 2

Kanamycin 8

Nalidixic acid 16

Streptomycin 32

Sulfamethoxazol 256

Tetracycline 8

Trimethoprim 2

Results of the investigation

Antimicrobial resistance in strains isolated from poultry meat

In 2012, 91 *Salmonella* isolates from poultry meats were tested for their antimicrobial susceptibility. A total of 43% were sensitive to all tested antimicrobials, which show a stable trend compared to 2011 and an increase of 5% compared to 2010. Some variations have been observed this year. While resistance to ampicillin, florfenicol and gentamicin, remained stable as 2011, resistance to streptomycin, sulfamethoxazole and tetracycline decreased. A slight increase in cephalosporins; cefotaxim and ceftazidim, resistance was observed compared to last year (3.0% vs. 2%). This could indicate a slight but steady increase of ESBL producing isolates, which are of particular interest. Of note, the remarkable increase of resistance found for ciprofloxacin (22% vs. 14%) and colistin (26% vs. 11%) compared to 2011. The resistant strains to ciprofloxacin were isolated mainly from broilers and poultry meat products and belonged to the serotype Paratyphi. The resistance strains to colistin were isolated mainly from spent hens and belonged to the serotype Enteritidis in line with the results reported in 2011.

Resistance varied depending on the matrix from which Salmonella was isolated. High resistance were observed in isolates from poultry meat followed by those from broiler meat. Only 4.5% of the isolates from poultry meat were sensible to all antibiotics tested and 22.7 % were resistant to four or more different classes of antibiotics. Fifty five per cent of isolates from broiler meat were sensitive to all antibiotics tested however, 31% were resistant to four or more antibiotics. In contrast, none of the isolates recovered from spent hens, showed multidrug resistance and 54% and 45% were sensible to all and all but one antibiotics tested, respectively.

In total, 44 Salmonella Enteritidis were analysed for their antibiotic susceptibility. This serotype showed very low level of resistance. All but three isolates were sensitive to all antibiotics tested except for colistin, for which 50% of the isolates showed resistance. This value has increased in 18% compared to 2011.

Resistance to colistin continues increasing.

In total, 21 Salmonella Paratyphi B isolates from poultry-derived food products were tested for their antibiotic susceptibility. The resistance of this serotype continue decreasing compared to previous years. Resistance to ampicillin was 51% vs 75% (2011), trimethoprim 67% vs. 89% (2011) and streptomycin 9.7 % compared to 64% in 2011. The degree of multiresistance, defined as resistance to more than 4 antibiotics, observed was 28.6%.

F. Antimicrobial resistance of *Salmonella* spp. in food

Sampling strategy used in monitoring

Frequency of the sampling

During 2012, 286 strains of *Salmonella enterica* isolated during the zoonosis monitoring program were sent to the Scientific Institute of Public Health for serotyping and determination of antimicrobial resistance. Different food matrices were sampled, mainly poultry (carcasses from broilers and spent hens, chicken parts and meat preparations) and pork (carcasses and cut meats). Other matrices where *Salmonella* was isolated were ready-to-eat meals, meat, meat preparations, frog's legs, pudding, liquid egg product, ham and dry sausage. Since 2011, the AMR was performed on the most prevalent ten serotypes.

Laboratory methodology used for identification of the microbial isolates

Minimum Inhibitory Concentrations (MIC) were determined by the broth dilution method using Sensititre, as recommended by the EURL antibiotic resistance. The antimicrobials reported are listed in the table below, as well as the breakpoints used for the interpretation of the results. Interpretation was according to CLSI and using epidemiological cut-off values from EUCAST. Quality control was performed by using an *Escherichia coli* ATCC 25922 strain.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

The antimicrobials tested are listed in the following table.

Antimicrobial
Ampicillin
Cefotaxim
Ceftazidim
Streptomycin
Kanamycin
Tetracycline
Sulfamethoxazole
Trimethoprim
Nalidixic acid
Ciprofloxacin
Chloramphenicol
Florfenicol
Gentamicin

Cut-off values used in testing

Minimum Inhibitory Concentrations (MIC) were determined by the use of broth microdilution (Sensititre EUMVS2 panel) according to the NCCLS standards.

The antimicrobials tested and the breakpoints used are listed in the following table.

Antimicrobial Breakpoints
($\mu\text{g} / \text{ml}$)
Ampicillin 4
Cefotaxim 0.5
Ceftazidim 2
Chloramphenicol 16

Ciprofloxacin0.06
Colistin2
Florfenicol16
Gentamycin2
Kanamycin8
Nalidixic acid16
Streptomycin32
Sulfamethoxazol256
Tetracycline8
Trimethoprim2

Results of the investigation

The level of resistance of Salmonella isolates from poultry and pork differs. In pork resistance to streptomycin, sulfamethoxazol and tetracycline was 8.5, 4.1 and 12.3-fold higher, respectively compared to poultry. Serotype distribution varies depending on the matrix. Salmonella Typhimurium was the most prevalent serotype on pork (105 out of 157, 67%). On poultry meat products S. Paratyphi (11 out of 22, 50%) was the predominant serotype followed by S. Enteritidis (6 out of 22, 27.3%), S. Typhimurium (4 out of 22, 18 %) and S. Derby (1 out of 22, 4.5%). However on spent hens S. Enteritidis was the most predominant one (31 out of 35, 88.6%) followed by S. Typhimurium (3 out of 35, 8.6 %) and S. Derby (1 out of 35, 2.8%).

On broilers, Salmonella isolates were distributed in a diversity of serotypes. Two serotypes were equally predominant, S. Paratyphi and S. Infantis (10 out of 34, 29.4 %) followed by S. Enteritidis (7 out of 34, 20.6 %), S. Agona (6 out of 34, 17.6 %) and lastly S. Typhimurium (1 out of 34, 2.9 %)

Antimicrobial tested PoultryPork

(n=91)(n=157)
Ampicillin2352
Cefotaxim3.32
Ceftazidim3.310.2
Chloramphenicol1.11.3
Ciprofloxacin224.5
Colistin263.8
Florfenicol00
Gentamicin00
Kanamycin1.12
Nalidixic acid221.3
Streptomycin5.547.8
Sulfamethoxazole13.254.1
Tetracycline3.340.8
Trimethoprim24.225.5

Antimicrobial susceptibility testing of Salmonella spp. isolated from different food matrices: percentage of resistant strains

Antimicrobial resistance in strains isolated from poultry meat

In 2012, 91 Salmonella isolates from poultry meats were tested for their antimicrobial susceptibility. A total of 43% were sensitive to all tested antimicrobials, which show a stable trend compared to 2011 and an increase of 5% compared to 2010. Some variations have been observed this year. While resistance to ampicillin, florfenicol and gentamicin, remained stable as 2011, resistance to streptomycin, sulfamethoxazole and tetracycline decreased. A slight increase in cephalosporins; cefotaxin and ceftazidim, resistance was observed compared to last year (3.0% vs. 2%). This could indicate a slight but

steady increase of ESBL producing isolates, which are of particular interest. Of note, the remarkable increase of resistance found for ciprofloxacin (22% vs. 14%) and colistin (26% vs. 11%) compared to 2011. The resistant strains to ciprofloxacin were isolated mainly from broilers and poultry meat products and belonged to the serotype Paratyphi. The resistance strains to colistin were isolated mainly from spent hens and belonged to the serotype Enteritidis in line with the results reported in 2011. Resistance varied depending on the matrix from which Salmonella was isolated. High resistance were observed in isolates from poultry meat followed by those from broiler meat. Only 4.5% of the isolates from poultry meat were sensitive to all antibiotics tested and 22.7 % were resistant to four or more different classes of antibiotics. Fifty five per cent of isolates from broiler meat were sensitive to all antibiotics tested however, 31% were resistant to four or more antibiotics. In contrast, none of the isolates recovered from spent hens, showed multidrug resistance and 54% and 45% were sensitive to all and all but one antibiotics tested, respectively.

In total, 44 Salmonella Enteritidis were analysed for their antibiotic susceptibility. This serotype showed very low level of resistance. All but three isolates were sensitive to all antibiotics tested except for colistin, for which 50% of the isolates showed resistance. This value has increased in 18% compared to 2011.

Resistance to colistin continues increasing.

In total, 21 Salmonella Paratyphi B isolates from poultry-derived food products were tested for their antibiotic susceptibility. The resistance of this serotype continue decreasing compared to previous years. Resistance to ampicillin was 51% vs 75% (2011), trimethoprim 67% vs. 89% (2011) and streptomycin 9.7 % compared to 64% in 2011. The degree of multiresistance, defined as resistance to more than 4 of antibiotics, observed was 28.6%.

Antimicrobial resistance in strains isolates from pork

In total 157 Salmonella strains from pork were tested for their antimicrobial susceptibility.

This includes strains from carcasses and cut meats. The resistance to cefotaxim, ceftazidim, ciprofloxacin, gentamicin, kanamycin and nalidixic acid was low (< 2%) however, high resistance to ampicillin (53%) streptomycin (48%) sulphamethoxazole (54%) and tetracycline (41%) was observed. This represents an increased between 13-15% for the three latter compared to 2011. The percentage of strains sensitive to all antibiotics were 49% which represents a decrease of 5% compared to last year. Of note, the increase of resistance of isolates to more than four antibiotics reaching values up to 21% which is an increase of 6% compared to 2011.

Salmonella Typhimurium was the predominant isolated serotype (67%), similar to last year. Resistance to ampicillin (73%) streptomycin (65%) sulphamethoxazole (69%) and tetracycline (52%) was observed. Twenty nine percent of all isolates were multidrug resistant. Of note the strong decrease of isolates sensitive to all antibiotics, reaching a value of only 14% compared to 38% in 2011. This is of particular concern.

Table Antimicrobial susceptibility testing of *S. Saintpaul* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Saintpaul | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Saintpaul* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Saintpaul Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory Antimicrobials: | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Adabraka* in Compound feedingstuffs for pigs - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Adabraka | Compound feedingstuffs for pigs | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Adabraka* in Compound feedingstuffs for pigs - quantitative data [Dilution method]

| S. Adabraka Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs for pigs | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Livingstone* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Livingstone | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 8 | 0 | | | | | | | | | | 7 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 8 | 0 | | | | | | | | | | | | | 8 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 8 | 1 | | | | | | | | | | | | | 2 | 1 | 4 | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 8 | 0 | | | | | | | | | | | | | 2 | 6 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 8 | 0 | | | | | | | | | | | | | 4 | 4 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 8 | 8 | | | | | | | 3 | 5 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 8 | 8 | | | | 2 | | 6 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 8 | 1 | | | | | | | | | | | 5 | 2 | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 8 | 0 | | | | | | | | | | | | | 8 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 8 | 1 | | | | | | | | | | | 1 | 6 | | | 1 | | | | | | | | | |
| Trimethoprim | 2 | 8 | 0 | | | | | | | | | | 7 | 1 | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 8 | 0 | | | | | | | | | 5 | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 8 | 0 | | | | | | | | | | | | 8 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 8 | 0 | | | | | | | | | | | | | | | | | 8 | | | | | | | |

Table Antimicrobial susceptibility testing of S. Livingstone in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Livingstone | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. London* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. London | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of S. London in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. London | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Alachua* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Alachua | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Alachua* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Alachua | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Agona* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Agona | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 4 | 1 | | | | | | | | | 1 | 2 | | | | | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 4 | 1 | | | | | | | | | | | | | 3 | | 1 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 4 | 1 | | | | | | | | | | | | | | 3 | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 4 | 0 | | | | | | | | | | | | | | 4 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 4 | 0 | | | | | | | | | | | | | 3 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 4 | 4 | | | | | | | 1 | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 4 | 4 | | | | 3 | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 4 | 2 | | | | | | | | | | | 2 | | | 1 | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 4 | 0 | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 4 | 0 | | | | | | | | | | | 3 | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 4 | 0 | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 4 | 0 | | | | | | | | | | 3 | | 1 | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 4 | 0 | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 4 | 1 | | | | | | | | | | | | | | | | | 2 | | 1 | 1 | | | | |

Table Antimicrobial susceptibility testing of *S. Agona* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Agona | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Kottbus* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Kottbus | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Kottbus* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Kottbus | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Enteritidis | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | 2 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Enteritidis | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Lexington* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Lexington | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of S. Lexington in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Lexington Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Anatum* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Anatum | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Anatum* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Anatum | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Idikan* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Idikan | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Idikan* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Idikan Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Carno* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Carno | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of S. Carno in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Carno Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Senftenberg | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 4 | 0 | | | | | | | | | | 3 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 4 | 0 | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 4 | 0 | | | | | | | | | | | | | | 2 | 1 | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 4 | 0 | | | | | | | | | | | | | 1 | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 4 | 0 | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 4 | 4 | | | | | | | 1 | 2 | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 4 | 4 | | | | 1 | | 3 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 4 | 1 | | | | | | | | | | | 2 | 1 | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 4 | 0 | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 4 | 1 | | | | | | | | | | | | 3 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 4 | 1 | | | | | | | | | | 3 | | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 4 | 1 | | | | | | | | | | 3 | | | 1 | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 4 | 0 | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 4 | 1 | | | | | | | | | | | | | | | | 3 | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Senftenberg | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Ouakam* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Ouakam | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of S. Ouakam in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Ouakam | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Infantis* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Infantis | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Infantis* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Infantis | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:r:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. 6,7:r:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of S. 6,7:r:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. 6,7:r:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:z29 in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. 6,7:z29 | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of S. 6,7:z29 in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. 6,7:z29 | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Hindmarsh* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Hindmarsh | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | 2 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Hindmarsh* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Hindmarsh | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Llandoff* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Llandoff | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | 1 | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Llandoff* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Llandoff | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Mbandaka | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | 2 | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 1 | | | | | | | | | | | | 2 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 2 | | 1 | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 0 | | | | | | | | | | | | | | | | | 1 | 2 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Mbandaka Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory Antimicrobials: | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Minnesota* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Minnesota | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of S. Minnesota in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Minnesota Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Not typeable in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| Not typeable | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 1 | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | |

Table Antimicrobial susceptibility testing of Not typeable in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| Not typeable | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 2 | | | | | | | | | | | | | | | 1 | | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 2 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 1 | | | 1 | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 2 | | | | | | | | | | | | | 1 | | | | | 2 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 2 | | | | | | | | | | | 1 | | | | | | | 2 | | | | | | |
| Trimethoprim | 2 | 3 | 2 | | | | | | | | | | 1 | | | | | | | 2 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 1 | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 2 | | | | | | | | | | | | 1 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | 3 | | |

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Other serovars in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| Other serovars | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 5 | 0 | | | | | | | | | | 4 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 5 | 1 | | | | | | | | | | | | | 4 | | 1 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 5 | 1 | | | | | | | | | | | | | | 2 | 2 | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 5 | 0 | | | | | | | | | | | | | | 5 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 5 | 0 | | | | | | | | | | | | | 4 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 5 | 5 | | | | | | | 2 | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 5 | 5 | | | | | | 4 | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 5 | 1 | | | | | | | | | | | 2 | 1 | 1 | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 5 | 0 | | | | | | | | | | | | | 4 | | 1 | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 5 | 2 | | | | | | | | | | | 1 | 1 | 1 | | | | | 2 | | | | | | |
| Trimethoprim | 2 | 5 | 2 | | | | | | | | | | 2 | 1 | | 1 | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 5 | 0 | | | | | | | | | 3 | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 5 | 1 | | | | | | | | | | | | 4 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 5 | 1 | | | | | | | | | | | | | | 1 | | | 2 | | 1 | | | 1 | | |

Table Antimicrobial susceptibility testing of Other serovars in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| Other serovars Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Derby* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Derby | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 2 | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 2 | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 1 | | | | | | | | | | | | | 2 | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 1 | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | | 2 | | 1 | | | | |

Table Antimicrobial susceptibility testing of *S. Derby* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Derby Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory Antimicrobials: | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Rissen* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Rissen | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 1 | | | | | | | | | | | | | | 2 | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | 2 | | | | 1 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 1 | 2 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 1 | | | | | | | | | | | | | 2 | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 1 | | | | | | | | | | | | 2 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | | 1 | 1 | | | | 1 | |

Table Antimicrobial susceptibility testing of S. Rissen in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Rissen | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------------|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 2 | | | | | | | | | | | | | | | | 1 | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 2 | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | 1 | | 1 | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 1 | | | | | | | | | | | | | 1 | 1 | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 1 | | | | | | | | | | | | 2 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 3 | 2 | | | | | | | | | | 1 | | | | | | | 2 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 2 | | | | | | | | | | | | 1 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 2 | | | | | | | | | | | | | | | | 1 | | | | | | | 2 | |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Montevideo* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Montevideo | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 5 | 1 | | | | | | | | | | 3 | 1 | | 1 | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 5 | 1 | | | | | | | | | | | | | 4 | | 1 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 5 | 1 | | | | | | | | | | | | | | 3 | | 1 | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 5 | 0 | | | | | | | | | | | | | 2 | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 5 | 0 | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 5 | 5 | | | | | | | 4 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 5 | 5 | | | | 2 | | 1 | | 1 | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 5 | 1 | | | | | | | | | | | 2 | 2 | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 5 | 1 | | | | | | | | | | | | | 3 | | 1 | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 5 | 0 | | | | | | | | | | | | 5 | | | | | | | | | | | | |
| Trimethoprim | 2 | 5 | 1 | | | | | | | | | | 4 | | | 1 | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 5 | 0 | | | | | | | | | 5 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 5 | 1 | | | | | | | | | | | | 4 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 5 | 0 | | | | | | | | | | | | | | | | 1 | 3 | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Montevideo* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Montevideo | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:-:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. 6,7:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | | 2 | | | | | | |

Table Antimicrobial susceptibility testing of S. 6,7:-:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. 6,7:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Ohio* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. Ohio | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | | | | | 2 | | | |

Table Antimicrobial susceptibility testing of S. Ohio in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Ohio Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|----|----|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 11 | 0 | | | | | | | | | | 9 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 11 | 0 | | | | | | | | | | | | | 10 | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 11 | 6 | | | | | | | | | | | | | | 4 | 1 | | | 6 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 11 | 1 | | | | | | | | | | | | | 1 | 9 | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 11 | 0 | | | | | | | | | | | | | 10 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 11 | 11 | | | | | | | 10 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 11 | 11 | | | | 2 | | 7 | | 2 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 11 | 10 | | | | | | | | | | | 1 | | | | | 10 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 11 | 1 | | | | | | | | | | | | | 10 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 11 | 4 | | | | | | | | | | | | 7 | | | | | 4 | | | | | | | |
| Trimethoprim | 2 | 11 | 5 | | | | | | | | | | 5 | 1 | | 1 | | | 4 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 11 | 0 | | | | | | | | | 7 | 4 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 11 | 1 | | | | | | | | | | | | 10 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 11 | 6 | | | | | | | | | | | | | | | | 3 | 1 | 1 | | | | 6 | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Typhimurium | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Give* in Compound feedingstuffs for pigs - quantitative data [Dilution method]

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

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

Table Antimicrobial susceptibility testing of S. Give in Compound feedingstuffs for pigs - quantitative data [Dilution method]

| S. Give Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs for pigs | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Isangi* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Isangi | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Isangi* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Isangi | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Cerro* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Cerro | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 3 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | 2 | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | 2 | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 1 | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | | | 2 | | | 1 | | |

Table Antimicrobial susceptibility testing of S. Cerro in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Cerro Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:-:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. 4,12:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | 1 | | 1 | | | | | |

Table Antimicrobial susceptibility testing of S. 4,12:-:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. 4,12:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in Compound feedingstuffs, not specified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Paratyphi B | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 1 | | | | | | | | | 2 | | | | | | | 1 | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 1 | | | | | | | | | | | | | | | | 2 | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 2 | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 2 | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 1 | | | | | | | | | | | | 1 | 1 | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 1 | | | | | | | | | 1 | 1 | | | 1 | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 1 | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 2 | | | | | | | | | | | | | | | | 1 | | | | | | 2 | | |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. Paratyphi B | Compound feedingstuffs, not specified | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 3,19:-:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

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

| S. 3,19:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 3 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 2 | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | | 2 | | 1 | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 0 | | | | | | | | | | | | | | | | | 2 | 1 | | | | | | |

Table Antimicrobial susceptibility testing of S. 3,19:-:- in Compound feedingstuffs, not specified - quantitative data [Dilution method]

| S. 3,19:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Compound feedingstuffs, not specified | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Salmonella spp. in Meat from broilers (Gallus gallus) - Surveillance - Unspecified - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

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

| Salmonella spp. | Meat from broilers (Gallus gallus) - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 34 | 0 | | | | | | | | | 19 | 12 | 2 | 1 | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 34 | 0 | | | | | | | | | | | | | 34 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 34 | 2 | | | | | | | | | | | | 1 | 6 | 9 | 10 | 6 | 2 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 34 | 0 | | | | | | | | | | | | 1 | 7 | 25 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 34 | 0 | | | | | | | | | | | | | 31 | 3 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0.5 | 34 | 0 | | | | | | | 5 | 25 | 4 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0.06 | 34 | 11 | | | | | | 21 | 2 | 0 | 2 | 8 | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 34 | 8 | | | | | | | | | | | 19 | 7 | 0 | 0 | 0 | 8 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 34 | 11 | | | | | | | | | | | | | 22 | 1 | 0 | 0 | 11 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 34 | 0 | | | | | | | | | | | 5 | 28 | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 34 | 11 | | | | | | | | | | 22 | 1 | 0 | 0 | 0 | 0 | 11 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 34 | 0 | | | | | | | | | 10 | 24 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 34 | 2 | | | | | | | | | | | | 32 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | | 34 | 34 | | | | | | | | | | | | | | | 5 | 19 | 7 | 0 | 0 | 0 | | | 3 | |

Table Antimicrobial susceptibility testing of Salmonella spp. in Meat from broilers (Gallus gallus) - Surveillance - Unspecified - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

| Salmonella spp. | Meat from broilers (Gallus gallus) - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) | yes |
| | Number of isolates available in the laboratory | 34 |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Kanamycin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Amphenicols - Florfenicol | | |
| Cephalosporins - Cefotaxime | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Penicillins - Ampicillin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Trimethoprim | | |
| Cephalosporins - Ceftazidim | | |
| Polymyxins - Colistin | | |
| Sulfonamides - Sulfamethoxazole | | |

Table Antimicrobial susceptibility testing of *S. Livingstone* in Other products of animal origin - quantitative data [Dilution method]

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

| S. Livingstone | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 1 | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Livingstone* in Other products of animal origin - quantitative data [Dilution method]

| S. Livingstone Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Mbandaka | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in Other products of animal origin - quantitative data [Dilution method]

| S. Mbandaka Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Enteritidis | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 1 | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 1 | | | | | | | | | 1 | | | | | | | 1 | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 2 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Other products of animal origin - quantitative data [Dilution method]

| S. Enteritidis Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Give* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Give | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | 1 | | | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Give* in Other products of animal origin - quantitative data [Dilution method]

| S. Give Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Idikan* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Idikan | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 1 | 1 | | | 1 | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 3 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | 1 | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 0 | | | | | | | | | | | | | | | | | | 3 | | | | | | |

Table Antimicrobial susceptibility testing of S. Idikan in Other products of animal origin - quantitative data [Dilution method]

| S. Idikan Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 3,19:-: in Other products of animal origin - quantitative data [Dilution method]

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

| S. 3,19:-: Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | 1 | | | |

Table Antimicrobial susceptibility testing of S. 3,19:-:- in Other products of animal origin - quantitative data [Dilution method]

| S. 3,19:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Goldcoast* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Goldcoast | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of S. Goldcoast in Other products of animal origin - quantitative data [Dilution method]

| S. Goldcoast Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Anatum* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Anatum | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Anatum* in Other products of animal origin - quantitative data [Dilution method]

| S. Anatum Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Chandans* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Chandans | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |

Table Antimicrobial susceptibility testing of S. Chandans in Other products of animal origin - quantitative data [Dilution method]

| S. Chandans Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Other serovars in Other products of animal origin - quantitative data [Dilution method]

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

| Other serovars | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 1 | | | | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | |

Table Antimicrobial susceptibility testing of Other serovars in Other products of animal origin - quantitative data [Dilution method]

| Other serovars Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:z10:- in Other products of animal origin - quantitative data [Dilution method]

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

| S. 6,7:z10:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of S. 6,7:z10:- in Other products of animal origin - quantitative data [Dilution method]

| S. 6,7:z10:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Hadar* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Hadar | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of S. Hadar in Other products of animal origin - quantitative data [Dilution method]

| S. Hadar Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Aberdeen* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Aberdeen | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Aberdeen* in Other products of animal origin - quantitative data [Dilution method]

| S. Aberdeen Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:z29 in Other products of animal origin - quantitative data [Dilution method]

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

| S. 6,7:z29 | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | 1 | | | | |

Table Antimicrobial susceptibility testing of S. 6,7:z29 in Other products of animal origin - quantitative data [Dilution method]

| S. 6,7:z29 Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Llandoff* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Llandoff | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Llandoff* in Other products of animal origin - quantitative data [Dilution method]

| S. Llandoff | Other products of animal origin | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Ayton* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Ayton | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of S. Ayton in Other products of animal origin - quantitative data [Dilution method]

| S. Ayton Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Not typeable in Other products of animal origin - quantitative data [Dilution method]

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

| Not typeable | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | | | 2 | | | | | |

Table Antimicrobial susceptibility testing of Not typeable in Other products of animal origin - quantitative data [Dilution method]

| Not typeable Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Agona* in Other products of animal origin - quantitative data [Dilution method]

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

| S. Agona | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 1 | | | | | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | 1 | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | 1 | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Agona* in Other products of animal origin - quantitative data [Dilution method]

| S. Agona Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Other products of animal origin - quantitative data [Dilution method]

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

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 1 | | | | | | | | | | | | 1 | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | 2 | | |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Other products of animal origin - quantitative data [Dilution method]

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Derby* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Derby | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|----------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | > 4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of S. Derby in Other products of animal origin - quantitative data [Dilution method]

| S. Derby Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Paratyphi B | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 2 | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 2 | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 2 | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 2 | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | 2 | |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in Other products of animal origin - quantitative data [Dilution method]

| S. Paratyphi B Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Virchow* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Virchow | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Virchow* in Other products of animal origin - quantitative data [Dilution method]

| S. Virchow Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Montevideo* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Montevideo | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | | 2 | | | | | | |

Table Antimicrobial susceptibility testing of S. Montevideo in Other products of animal origin - quantitative data [Dilution method]

| S. Montevideo Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:d:- in Other products of animal origin - quantitative data [Dilution method]

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

| S. 4,12:d:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|---|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | | 1 |

Table Antimicrobial susceptibility testing of S. 4,12:d:- in Other products of animal origin - quantitative data [Dilution method]

| S. 4,12:d:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|--|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 1 | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 1 | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Other products of animal origin - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Rissen* in Other products of animal origin - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Rissen | Other products of animal origin | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 1 | | | | | | | | | | | | | | 2 | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 2 | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 1 | 1 | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 1 | | | | | | | | | | | 2 | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 2 | | | | | | | | | | | | | 1 | | | | | 2 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 2 | | | | | | | | | | | | 1 | | | | | | 2 | | | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | | | 1 | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | | 2 | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Rissen* in Other products of animal origin - quantitative data [Dilution method]

| S. Rissen Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Other products of animal origin | |
|---|---------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Salmonella spp. in Meat from broilers (Gallus gallus) - carcase - spent hens - at slaughterhouse - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

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

| Salmonella spp. | Meat from broilers (Gallus gallus) - carcase - spent hens - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 35 | 0 | | | | | | | | | 14 | 17 | 4 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 35 | 0 | | | | | | | | | | | | | 34 | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 35 | 0 | | | | | | | | | | | | 5 | 25 | 3 | 2 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 35 | 0 | | | | | | | | | | | | 2 | 19 | 14 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 35 | 0 | | | | | | | | | | | | 2 | 33 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0.5 | 35 | 0 | | | | | | | 23 | 12 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0.06 | 35 | 0 | | | | | | 35 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 35 | 0 | | | | | | | | | | 2 | 17 | 16 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 35 | 0 | | | | | | | | | | | | | 31 | 4 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 35 | 0 | | | | | | | | | | | 5 | 30 | | | | | | | | | | | | |
| Trimethoprim | 2 | 35 | 0 | | | | | | | | | | 33 | 2 | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 35 | 0 | | | | | | | | | 32 | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 35 | 16 | | | | | | | | | | | | 19 | 16 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | | 35 | 35 | | | | | | | | | | | | | | | 2 | 26 | 6 | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *Salmonella* spp. in Meat from broilers (*Gallus gallus*) - carcass - spent hens - at slaughterhouse - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

| Salmonella spp. | Meat from broilers (<i>Gallus gallus</i>) - carcass - spent hens - at slaughterhouse - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) | yes |
| | Number of isolates available in the laboratory | 35 |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Kanamycin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Amphenicols - Florfenicol | | |
| Cephalosporins - Cefotaxime | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Penicillins - Ampicillin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Trimethoprim | | |
| Cephalosporins - Ceftazidim | | |
| Polymyxins - Colistin | | |
| Sulfonamides - Sulfamethoxazole | | |

Table Antimicrobial susceptibility testing of Salmonella spp. in Meat from poultry, unspecified - meat products - raw but intended to be eaten cooked - chilled - at retail - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

| Salmonella spp. | Meat from poultry, unspecified - meat products - raw but intended to be eaten cooked - chilled - at retail - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 22 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 22 | 0 | | | | | | | | | 18 | 3 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 22 | 1 | | | | | | | | | | | | | 21 | | | | | 1 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 22 | 3 | | | | | | | | | | | | 3 | 2 | 3 | 6 | 5 | 0 | 3 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 22 | 1 | | | | | | | | | | | | | 7 | 12 | 2 | 0 | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 22 | 0 | | | | | | | | | | | | | 17 | 5 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0.5 | 22 | 3 | | | | | | | 9 | 9 | 1 | | | | 3 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0.06 | 22 | 9 | | | | | | 13 | | | 1 | 6 | 2 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 22 | 13 | | | | | | | | | | | 4 | 5 | | | | 13 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 22 | 9 | | | | | | | | | | | | | 13 | | | | 9 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 22 | 3 | | | | | | | | | | | 2 | 15 | 2 | | | | 3 | | | | | | | |
| Trimethoprim | 2 | 22 | 11 | | | | | | | | | | 11 | | | | | | 11 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 22 | 3 | | | | | | | | | 10 | 9 | | | | 1 | 2 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 22 | 6 | | | | | | | | | | | | 16 | 6 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | | 22 | 22 | | | | | | | | | | | | | | | 3 | 8 | 2 | | | | | | 9 | |

Table Antimicrobial susceptibility testing of *Salmonella* spp. in Meat from poultry, unspecified - meat products - raw but intended to be eaten cooked - chilled - at retail - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

| Salmonella spp. | Meat from poultry, unspecified - meat products - raw but intended to be eaten cooked - chilled - at retail - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) | yes |
| | Number of isolates available in the laboratory | 22 |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Kanamycin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Amphenicols - Florfenicol | | |
| Cephalosporins - Cefotaxime | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Penicillins - Ampicillin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Trimethoprim | | |
| Cephalosporins - Ceftazidim | | |
| Polymyxins - Colistin | | |
| Sulfonamides - Sulfamethoxazole | | |

Table Antimicrobial susceptibility testing of Salmonella spp. in Meat from pig - carcass - chilled - at slaughterhouse - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

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

| Salmonella spp. | Meat from pig - carcass - chilled - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|-----|-----|--------|--------|-------|-------|-------|------|------|------|------|-----|-----|-----|-----|-----|----|----|----|-----|-----|-----|-------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 157 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 157 | 1 | | | | | | | | | | 28 | 109 | 19 | 1 | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 157 | 3 | | | | | | | | | | | | | 152 | 2 | | | 3 | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 157 | 75 | | | | | | | | | | | | | 5 | 34 | 34 | 9 | 10 | 65 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 157 | 16 | | | | | | | | | | | | | 17 | 115 | 9 | | 16 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 157 | 6 | | | | | | | | | | | | | 97 | 41 | 13 | 3 | 3 | | | | | | | |
| Cephalosporins - Cefotaxime | 0.5 | 157 | 3 | | | | | | | 78 | 66 | 10 | | | | 3 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0.06 | 157 | 2 | | | | | | 138 | 17 | | 1 | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 157 | 82 | | | | | | | | | | | 52 | 22 | 1 | 1 | 0 | 81 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 157 | 2 | | | | | | | | | | | | | 134 | 20 | 1 | | 2 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 157 | 64 | | | | | | | | | | | 8 | 78 | 3 | 4 | 1 | 6 | 57 | | | | | | | |
| Trimethoprim | 2 | 157 | 40 | | | | | | | | | | 115 | 2 | | | | | 40 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 157 | 3 | | | | | | | | | 89 | 65 | | | | 1 | 2 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 157 | 7 | | | | | | | | | | | | 150 | 7 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | | 157 | 157 | | | | | | | | | | | | | | 1 | 6 | 38 | 21 | 4 | 2 | | | | 85 | |

Table Antimicrobial susceptibility testing of *Salmonella* spp. in Meat from pig - carcase - chilled - at slaughterhouse - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

| Salmonella spp. | Meat from pig - carcase - chilled - at slaughterhouse - Surveillance | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | yes |
| | Number of isolates available in the laboratory | 157 |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Kanamycin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Amphenicols - Florfenicol | | |
| Cephalosporins - Cefotaxime | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Penicillins - Ampicillin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Trimethoprim | | |
| Cephalosporins - Ceftazidim | | |
| Polymyxins - Colistin | | |
| Sulfonamides - Sulfamethoxazole | | |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Meat from broilers (*Gallus gallus*) - carcase - spent hens - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

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

| S. Enteritidis | Meat from broilers (<i>Gallus gallus</i>) - carcase - spent hens - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 31 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 31 | 0 | | | | | | | | | 13 | 15 | 3 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 31 | 0 | | | | | | | | | | | | | 31 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 31 | 0 | | | | | | | | | | | | 4 | 25 | 2 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 31 | 0 | | | | | | | | | | | | 2 | 15 | 14 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 31 | 0 | | | | | | | | | | | | 2 | 29 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0.5 | 31 | 0 | | | | | | | 20 | 11 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0.06 | 31 | 0 | | | | | | 31 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 31 | 0 | | | | | | | | | | 2 | 15 | 14 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 31 | 0 | | | | | | | | | | | | | 28 | 3 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 31 | 0 | | | | | | | | | | | 4 | 27 | | | | | | | | | | | | |
| Trimethoprim | 2 | 31 | 0 | | | | | | | | | | 29 | 2 | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 31 | 0 | | | | | | | | | 30 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 31 | 15 | | | | | | | | | | | | 16 | 15 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | | 31 | 31 | | | | | | | | | | | 1 | 23 | 6 | 1 | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Meat from broilers (*Gallus gallus*) - carcass - spent hens - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

| S. Enteritidis | Meat from broilers (<i>Gallus gallus</i>) - carcass - spent hens - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) | yes |
| | Number of isolates available in the laboratory | 31 |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Kanamycin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Amphenicols - Florfenicol | | |
| Cephalosporins - Cefotaxime | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Penicillins - Ampicillin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Trimethoprim | | |
| Cephalosporins - Ceftazidim | | |
| Polymyxins - Colistin | | |
| Sulfonamides - Sulfamethoxazole | | |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in Meat from broilers (*Gallus gallus*) - carcass - chilled - at slaughterhouse - Surveillance - Official sampling - quantitative data [Dilution method]

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

| S. Paratyphi B | Meat from broilers (<i>Gallus gallus</i>) - carcass - chilled - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 9 | 0 | | | | | | | | | 8 | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 9 | 0 | | | | | | | | | | | | | 9 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 9 | 2 | | | | | | | | | | | | | | | 2 | 5 | 2 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 9 | 0 | | | | | | | | | | | | | 5 | 4 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 9 | 0 | | | | | | | | | | | | | 9 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0.5 | 9 | 0 | | | | | | | | 9 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0.06 | 9 | 6 | | | | | | 2 | 1 | | | 6 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 9 | 7 | | | | | | | | | | | 2 | | | | | 7 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 9 | 6 | | | | | | | | | | | | | 3 | | | | 6 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 9 | 0 | | | | | | | | | | | 2 | 7 | | | | | | | | | | | | |
| Trimethoprim | 2 | 9 | 9 | | | | | | | | | | | | | | | | 9 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 9 | 9 | | | | | | | | | 3 | 6 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 9 | 9 | | | | | | | | | | | | 8 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | | 9 | 9 | | | | | | | | | | | | | | | 3 | 3 | 1 | | | | | | 2 | |

Table Antimicrobial susceptibility testing of S. Paratyphi B in Meat from broilers (Gallus gallus) - carcasse - chilled - at slaughterhouse - Surveillance - Official sampling - quantitative data [Dilution method]

| | | |
|--|--|---------|
| S. Paratyphi B | Meat from broilers (Gallus gallus) - carcasse - chilled - at slaughterhouse - Surveillance | |
| Isolates out of a monitoring program (yes/no) | yes | |
| Number of isolates available in the laboratory | 9 | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Kanamycin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Amphenicols - Florfenicol | | |
| Cephalosporins - Cefotaxime | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Penicillins - Ampicillin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Trimethoprim | | |
| Cephalosporins - Ceftazidim | | |
| Polymyxins - Colistin | | |
| Sulfonamides - Sulfamethoxazole | | |

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

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

| S. Typhimurium | Meat from pig - carcass - chilled - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|-----|-----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|-----|-----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 105 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 105 | 0 | | | | | | | | | 21 | 73 | 11 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 105 | 3 | | | | | | | | | | | | | 101 | 1 | | | | 3 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 105 | 69 | | | | | | | | | | | | | 1 | 22 | 10 | 3 | 9 | 60 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 105 | 14 | | | | | | | | | | | | | 10 | 75 | 6 | | 14 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 105 | 6 | | | | | | | | | | | | | 70 | 20 | 9 | 3 | 3 | | | | | | | |
| Cephalosporins - Cefotaxime | 0.5 | 105 | 1 | | | | | | | 63 | 37 | 4 | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0.06 | 105 | 1 | | | | | | 91 | 13 | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 105 | 77 | | | | | | | | | | | 18 | 10 | | | | | 77 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 105 | 1 | | | | | | | | | | | | | 87 | 16 | 1 | 0 | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 105 | 55 | | | | | | | | | | | 2 | 44 | 1 | 3 | 1 | 5 | 49 | | | | | | | |
| Trimethoprim | 2 | 105 | 35 | | | | | | | | | | 68 | 2 | | | | | | 35 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 105 | 1 | | | | | | | | | 73 | 31 | | | | | | 1 | | | | | | | | |
| Polymyxins - Colistin | 2 | 105 | 2 | | | | | | | | | | | | 103 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | | 105 | 105 | | | | | | | | | | | | | | | 1 | 4 | 19 | 4 | 3 | 1 | | | 73 | |

Table Antimicrobial susceptibility testing of S. Typhimurium in Meat from pig - carcase - chilled - at slaughterhouse - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

| | | |
|--|--|---------|
| S. Typhimurium | Meat from pig - carcase - chilled - at slaughterhouse - Surveillance | |
| Isolates out of a monitoring program (yes/no) | yes | |
| Number of isolates available in the laboratory | 105 | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Kanamycin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Amphenicols - Florfenicol | | |
| Cephalosporins - Cefotaxime | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Penicillins - Ampicillin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Trimethoprim | | |
| Cephalosporins - Ceftazidim | | |
| Polymyxins - Colistin | | |
| Sulfonamides - Sulfamethoxazole | | |

Table Antimicrobial susceptibility testing of *S. Tennessee* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

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

Table Antimicrobial susceptibility testing of *S. Tennessee* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Tennessee Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Yoruba* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Yoruba | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Yoruba* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Yoruba Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Hessarek* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Hessarek | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 3 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 3 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 0 | | | | | | | | | | | | | | | | 3 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Hessarek* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Hessarek Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Brandenburg* in Poultry, unspecified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Brandenburg | Poultry, unspecified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of S. Brandenburg in Poultry, unspecified - quantitative data [Dilution method]

| S. Brandenburg Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Poultry, unspecified | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:-: in Turkeys - quantitative data [Dilution method]

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

| S. 4,12:-: Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Turkeys | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of S. 4,12:-:- in Turkeys - quantitative data [Dilution method]

| S. 4,12:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Turkeys | |
|--|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:-:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

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

Table Antimicrobial susceptibility testing of S. 6,7:-:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 6,7:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Dublin* in Pigeons - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Dublin | Pigeons | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Dublin* in Pigeons - quantitative data [Dilution method]

| S. Dublin Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigeons | |
|--|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Canary - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Canary | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Canary - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Canary | |
|---|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Pigs - breeding animals - raised under controlled housing conditions -
 quantitative data [Dilution method]

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

| S. Typhimurium | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 75 | 2 | | | | | | | | | 3 | 59 | 10 | 1 | | | 2 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 75 | 7 | | | | | | | | | | | | | 68 | | | 2 | | 5 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 75 | 52 | | | | | | | | | | | | | | 16 | 6 | 1 | 5 | 47 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 75 | 15 | | | | | | | | | | | | | 10 | 43 | 7 | | 15 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 75 | 9 | | | | | | | | | | | | | 53 | 8 | 5 | 5 | 4 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 75 | 75 | | | | | | | 44 | 16 | 7 | | | 1 | 7 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 75 | 75 | | | | 9 | | 44 | 7 | 5 | 6 | | 2 | | | 2 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 75 | 61 | | | | | | | | | | | 8 | 6 | | | | 61 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 75 | 10 | | | | | | | | | | | | | 52 | 10 | 3 | 1 | 9 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 75 | 50 | | | | | | | | | | | | 21 | 3 | 1 | | 2 | 48 | | | | | | | |
| Trimethoprim | 2 | 75 | 32 | | | | | | | | | | 43 | | | 1 | 1 | | 30 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 75 | 8 | | | | | | | | | 50 | 16 | | 1 | 1 | 2 | 5 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 75 | 6 | | | | | | | | | | | | 69 | 6 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 75 | 56 | | | | | | | | | | | | | | | 1 | 7 | 10 | 1 | | 2 | | 54 | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Pigs - breeding animals - raised under controlled housing conditions -
quantitative data [Dilution method]

| S. Typhimurium | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 47 | 1 | | | | | | | | | 1 | 32 | 13 | | | 1 | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 47 | 1 | | | | | | | | | | | | | 46 | | 1 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 47 | 28 | | | | | | | | | | | | | | 5 | 12 | 2 | 2 | 26 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 47 | 7 | | | | | | | | | | | | | 12 | 27 | 1 | | 7 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 47 | 8 | | | | | | | | | | | | | 36 | 3 | | 6 | 2 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 47 | 47 | | | | | | | 27 | 10 | 4 | 1 | | 1 | 4 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 47 | 47 | | | | 4 | | 28 | 3 | 3 | 7 | 2 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 47 | 30 | | | | | | | | | | | 10 | 6 | 1 | | | 30 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 47 | 11 | | | | | | | | | | | | | 30 | 2 | 4 | 1 | 10 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 47 | 25 | | | | | | | | | | | | 21 | 1 | | 1 | 5 | 19 | | | | | | | |
| Trimethoprim | 2 | 47 | 22 | | | | | | | | | | 23 | 1 | 1 | 1 | | | 21 | | | | | | | | |
| Cephalosporins - Cefazidim | 2 | 47 | 7 | | | | | | | | | 30 | 9 | 1 | | | 3 | 4 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 47 | 1 | | | | | | | | | | | | 46 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 47 | 32 | | | | | | | | | | | | | | 1 | 1 | 8 | 4 | 1 | | 1 | | 31 | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

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

Table Antimicrobial susceptibility testing of S. 4:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 4:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Give* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data

[Dilution method]

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

| S. Give | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Give* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data

[Dilution method]

| S. Give | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Havana* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Havana | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 1 | | | | | | | | | | | | | 1 | 1 | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | 1 | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 1 | | | | | | | | | | | | | | 2 | | | | 1 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 2 | | | | | | | | | | | | | 1 | | | | 1 | | | 1 | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | 1 | 1 | | | | | | | | 1 | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | | | 1 | 1 | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Havana* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Havana Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Anatum* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Anatum | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 6 | 0 | | | | | | | | | | 6 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 6 | 0 | | | | | | | | | | | | | 6 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 6 | 2 | | | | | | | | | | | | | | 2 | 2 | | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 6 | 1 | | | | | | | | | | | | | 1 | 4 | | 1 | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 6 | 0 | | | | | | | | | | | | | 5 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 6 | 6 | | | | | | | 2 | 4 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 6 | 6 | | | | 4 | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 6 | 2 | | | | | | | | | | | 2 | 1 | 1 | | | 2 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 6 | 0 | | | | | | | | | | | | | 6 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 6 | 1 | | | | | | | | | | | | 5 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 6 | 2 | | | | | | | | | | 3 | 1 | | | | | 2 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 6 | 0 | | | | | | | | | 3 | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 6 | 0 | | | | | | | | | | | | 6 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 6 | 3 | | | | | | | | | | | | | | | 1 | 1 | | 1 | | | | | 3 | |

Table Antimicrobial susceptibility testing of *S. Anatum* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Anatum Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Idikan* in Solipeds, domestic - horses - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Idikan | Solipeds, domestic - horses | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Idikan* in Solipeds, domestic - horses - quantitative data [Dilution method]

| S. Idikan Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Solipeds, domestic - horses | |
|--|-----------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Jerusalem* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Jerusalem | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Jerusalem* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Jerusalem | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Braenderup | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 7 | 0 | | | | | | | | | | 7 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 7 | 0 | | | | | | | | | | | | | 7 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 7 | 2 | | | | | | | | | | | | | | 4 | 1 | | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 7 | 1 | | | | | | | | | | | | | 1 | 5 | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 7 | 1 | | | | | | | | | | | | | 4 | 2 | | | 1 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 7 | 7 | | | | | | | 6 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 7 | 7 | | | | 2 | | 4 | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 7 | 2 | | | | | | | | | | | 5 | | | | | | 2 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 7 | 0 | | | | | | | | | | | | | 7 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 7 | 1 | | | | | | | | | | | | 5 | 1 | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 7 | 0 | | | | | | | | | | 7 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 7 | 0 | | | | | | | | | 7 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 7 | 0 | | | | | | | | | | | | 7 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 7 | 2 | | | | | | | | | | | | | | | | | 4 | 1 | | | | | 2 | |

Table Antimicrobial susceptibility testing of *S. Braenderup* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Braenderup Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Cerro* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

| S. Cerro | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 4 | 0 | | | | | | | | | | 2 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 4 | 0 | | | | | | | | | | | | | 3 | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 4 | 1 | | | | | | | | | | | | | 1 | 2 | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 4 | 0 | | | | | | | | | | | | | 1 | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 4 | 0 | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 4 | 4 | | | | | | | 1 | 1 | 1 | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 4 | 4 | | | | | | 2 | | 2 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 4 | 2 | | | | | | | | | | | 1 | | 1 | 1 | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 4 | 1 | | | | | | | | | | | | | 3 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 4 | 2 | | | | | | | | | | | 1 | 1 | | | | 1 | 1 | | | | | | | |
| Trimethoprim | 2 | 4 | 0 | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 4 | 1 | | | | | | | | | | 3 | | | | 1 | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 4 | 2 | | | | | | | | | | | | 2 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 4 | 2 | | | | | | | | | | | | | | | | | | | 2 | 1 | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Cerro* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Cerro Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Llandoff* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Llandoff | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Llandoff* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Llandoff Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Mbandaka | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 9 | 0 | | | | | | | | | | 7 | 1 | 1 | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 9 | 0 | | | | | | | | | | | | | 9 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 9 | 1 | | | | | | | | | | | | | | 8 | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 9 | 0 | | | | | | | | | | | | | | 9 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 9 | 0 | | | | | | | | | | | | | 2 | 7 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 9 | 9 | | | | | | | 1 | 6 | 2 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 9 | 9 | | | | 4 | | 5 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 9 | 0 | | | | | | | | | | | 7 | 1 | 1 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 9 | 0 | | | | | | | | | | | | | 9 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 9 | 1 | | | | | | | | | | | | 8 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 9 | 1 | | | | | | | | | | 7 | | 1 | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 9 | 0 | | | | | | | | | | 9 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 9 | 2 | | | | | | | | | | | | 7 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 9 | 1 | | | | | | | | | | | | | | | | | 2 | 3 | 3 | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Mbandaka | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Minnesota* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Minnesota | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Minnesota* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Minnesota | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Kentucky* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

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

Table Antimicrobial susceptibility testing of *S. Kentucky* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Kentucky Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory Antimicrobials: | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

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

Table Antimicrobial susceptibility testing of *S. Newport* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Newport Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Not typeable in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| Not typeable | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 10 | 1 | | | | | | | | | 6 | 3 | | | | 1 | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 10 | 3 | | | | | | | | | | | | | 7 | | | 1 | | 2 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 10 | 3 | | | | | | | | | | | | | 1 | 2 | 1 | 3 | | 3 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 10 | 0 | | | | | | | | | | | | | 3 | 5 | 2 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 10 | 0 | | | | | | | | | | | | | 7 | 3 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 10 | 10 | | | | | | | 1 | 3 | 2 | | | | 4 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 10 | 10 | | | | 1 | | 2 | | | | 6 | | | | 1 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 10 | 4 | | | | | | | | | | | 2 | 3 | 1 | | | 4 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 10 | 8 | | | | | | | | | | | | | 2 | | | 1 | 7 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 10 | 2 | | | | | | | | | | | 1 | 4 | 3 | | 1 | | 1 | | | | | | | |
| Trimethoprim | 2 | 10 | 7 | | | | | | | | | | 3 | | | | | | 7 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 10 | 4 | | | | | | | | | 2 | 4 | | | | | 4 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 10 | 1 | | | | | | | | | | | | 9 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 10 | 4 | | | | | | | | | | | | | | | 1 | 2 | 3 | | | | | | 4 | |

Table Antimicrobial susceptibility testing of Not typeable in Gallus gallus (fowl) - quantitative data [Dilution method]

| Not typeable Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

| S. Agona | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 12 | 0 | | | | | | | | | 2 | 10 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 12 | 0 | | | | | | | | | | | | | 11 | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 12 | 2 | | | | | | | | | | | | 1 | | 9 | | | 1 | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 12 | 0 | | | | | | | | | | | | | 1 | 11 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 12 | 0 | | | | | | | | | | | | | 5 | 7 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 12 | 12 | | | | | | | 3 | 8 | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 12 | 12 | | | | 5 | | 6 | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 12 | 2 | | | | | | | | | | | 8 | 2 | | | | | 2 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 12 | 1 | | | | | | | | | | | | | 10 | 1 | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 12 | 1 | | | | | | | | | | | 4 | 7 | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 12 | 2 | | | | | | | | | | 10 | | | | | | | 2 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 12 | 1 | | | | | | | | | 2 | 9 | | | | | | 1 | | | | | | | | |
| Polymyxins - Colistin | 2 | 12 | 0 | | | | | | | | | | | | 12 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 12 | 2 | | | | | | | | | | | | | | | 2 | | 4 | 3 | 1 | | | | 2 | |

Table Antimicrobial susceptibility testing of *S. Agona* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Agona Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Kottbus* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Kottbus | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 24 | 0 | | | | | | | | | 2 | 20 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 24 | 0 | | | | | | | | | | | | | 24 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 24 | 4 | | | | | | | | | | | | | 6 | 13 | | 1 | | 4 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 24 | 0 | | | | | | | | | | | | | 19 | 5 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 24 | 0 | | | | | | | | | | | | | 22 | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 24 | 24 | | | | | | | 18 | 3 | | 1 | | | 2 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 24 | 24 | | | | 14 | | 5 | 2 | | 1 | 1 | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 24 | 4 | | | | | | | | | | | 13 | 6 | 1 | | | 4 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 24 | 2 | | | | | | | | | | | | | 20 | 1 | 1 | 1 | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 24 | 3 | | | | | | | | | | | 16 | 3 | 1 | 1 | | 1 | 2 | | | | | | | |
| Trimethoprim | 2 | 24 | 3 | | | | | | | | | | 21 | | | 1 | | | 2 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 24 | 3 | | | | | | | | | 21 | | | | | 1 | 2 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 24 | 4 | | | | | | | | | | | | 20 | 4 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 24 | 4 | | | | | | | | | | | | | | | | 7 | 12 | 1 | | | | | 4 | |

Table Antimicrobial susceptibility testing of *S. Kottbus* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Kottbus Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 21 | 2 | | | | | | | | | | 16 | 3 | | | 1 | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 21 | 2 | | | | | | | | | | | | | 18 | 1 | | | | 2 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 21 | 19 | | | | | | | | | | | | | | 1 | | 1 | | 19 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 21 | 6 | | | | | | | | | | | | | 2 | 12 | 1 | 1 | 5 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 21 | 1 | | | | | | | | | | | | | 15 | 4 | 1 | | 1 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 21 | 21 | | | | | | | 9 | 2 | 4 | | 1 | | 5 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 21 | 21 | | | | 3 | | 8 | 1 | 1 | 3 | 3 | | | | 2 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 21 | 20 | | | | | | | | | | | 1 | | | | | 20 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 21 | 8 | | | | | | | | | | | | | 11 | 2 | | | 8 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 21 | 20 | | | | | | | | | | | 1 | | | | | | 20 | | | | | | | |
| Trimethoprim | 2 | 21 | 16 | | | | | | | | | | 4 | | 1 | | | | 16 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 21 | 4 | | | | | | | | | 12 | 4 | 1 | | 2 | 2 | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 21 | 6 | | | | | | | | | | | | 15 | 6 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 21 | 20 | | | | | | | | | | | | | | | | 1 | | | | | | 20 | | |

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | |
|--|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 1 | | | | | | | | | | 1 | 1 | | | | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 1 | | | | | | | | | | | | | | 1 | | 1 | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 1 | 1 | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 1 | 1 | | | | | | | 1 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 1 | | | | | | | | | | | 1 | 1 | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 1 | | | | | | | | | | | | | 1 | 1 | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 2 | | | | | | | | | | | | | 1 | | | | | 2 | | | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | | | | | 1 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 1 | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 2 | | | | | | | | | | | | | | | | | | 1 | | | | | 2 | |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Other serovars in Ducks - quantitative data [Dilution method]

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

| Other serovars | Ducks | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---------------|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | | 1 | | | | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | 1 | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of Other serovars in Ducks - quantitative data [Dilution method]

| Other serovars Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Ducks | |
|---|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Derby* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Derby | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 14 | 0 | | | | | | | | | | 12 | 1 | 1 | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 14 | 0 | | | | | | | | | | | | | 14 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 14 | 3 | | | | | | | | | | | | | | 6 | 3 | 2 | | 3 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 14 | 1 | | | | | | | | | | | | | | 13 | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 14 | 0 | | | | | | | | | | | | | 3 | 11 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 14 | 14 | | | | | | | 2 | 11 | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 14 | 14 | | | | 5 | | 7 | 1 | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 14 | 3 | | | | | | | | | | | 7 | 3 | 1 | | | 3 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 14 | 2 | | | | | | | | | | | | | 11 | | 1 | 1 | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 14 | 4 | | | | | | | | | | | 1 | 7 | 1 | 1 | | | | 4 | | | | | | |
| Trimethoprim | 2 | 14 | 4 | | | | | | | | | | 8 | 2 | | | 1 | | 3 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 14 | 1 | | | | | | | | | 1 | 12 | | | | 1 | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 14 | 0 | | | | | | | | | | | | 14 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 14 | 7 | | | | | | | | | | | | | | | | 1 | 2 | 2 | 2 | 1 | | 6 | | |

Table Antimicrobial susceptibility testing of *S. Derby* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Derby | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Paratyphi B | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|-----|-----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|-----|-----|----|----|-----|-----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 148 | 3 | | | | | | | | | 76 | 66 | 3 | | | 3 | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 148 | 11 | | | | | | | | | | | | | 134 | 3 | | 1 | | 10 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 148 | 51 | | | | | | | | | | | | | 3 | 3 | 4 | 87 | 11 | 40 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 148 | 10 | | | | | | | | | | | | 2 | 45 | 83 | 8 | 1 | 9 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 148 | 3 | | | | | | | | | | | | 16 | 96 | 29 | 4 | 1 | 2 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 148 | 148 | | | | | | | 18 | 72 | 12 | 3 | 3 | 4 | 36 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 148 | 148 | | | | 2 | | 8 | 1 | | 50 | 71 | 15 | 1 | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 148 | 111 | | | | | | | | | | | 28 | 7 | 2 | | | 111 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 148 | 137 | | | | | | | | | | | | | 11 | | | | 137 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 148 | 39 | | | | | | | | | | | 22 | 75 | 12 | | 3 | 8 | 28 | | | | | | | |
| Trimethoprim | 2 | 148 | 138 | | | | | | | | | | 9 | | 1 | | | | 138 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 148 | 38 | | | | | | | | | 44 | 58 | 4 | 4 | 3 | 9 | 26 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 148 | 12 | | | | | | | | | | | | 136 | 12 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 148 | 75 | | | | | | | | | | | | | | 2 | 1 | 10 | 53 | 6 | 1 | 3 | | 72 | | |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Paratyphi B Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Rissen* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Rissen | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 1 | | | | | | | | | | | | | | 1 | | 1 | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 1 | | | | | | | | | | | | | | 2 | | 1 | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | 1 | | 2 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 2 | | | | | | | | | | | | 1 | | | | 2 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 3 | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Trimethoprim | 2 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | 3 | | |

Table Antimicrobial susceptibility testing of *S. Rissen* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Rissen | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Saintpaul* in Geese - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

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

Table Antimicrobial susceptibility testing of *S. Saintpaul* in Geese - quantitative data [Dilution method]

| S. Saintpaul Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Geese | |
|---|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Virchow* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Virchow | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Virchow* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Virchow Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Brandenburg* in Pigs - breeding animals - raised under controlled housing conditions -
 quantitative data [Dilution method]

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

| S. Brandenburg | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Brandenburg* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Brandenburg | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

| S. Montevideo | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 5 | 0 | | | | | | | | | | 3 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 5 | 0 | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 5 | 0 | | | | | | | | | | | | | | 3 | 2 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 5 | 0 | | | | | | | | | | | | | | 5 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 5 | 0 | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 5 | 5 | | | | | | | 4 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 5 | 5 | | | | | | 4 | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 5 | 1 | | | | | | | | | | | 2 | 2 | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 5 | 1 | | | | | | | | | | | | | 4 | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 5 | 0 | | | | | | | | | | | | 5 | | | | | | | | | | | | |
| Trimethoprim | 2 | 5 | 1 | | | | | | | | | | 4 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 5 | 0 | | | | | | | | | 5 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 5 | 0 | | | | | | | | | | | | 5 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 5 | 0 | | | | | | | | | | | | | | | | | | 3 | 2 | | | | | |

Table Antimicrobial susceptibility testing of *S. Montevideo* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Montevideo Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 13,23:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 13,23:i:- | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of S. 13,23:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 13,23:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:d:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 4,12:d:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of S. 4,12:d:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 4,12:d:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Rabbits - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Rabbits | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 5 | 0 | | | | | | | | | | 2 | 3 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 5 | 0 | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 5 | 0 | | | | | | | | | | | | | | 1 | 4 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 5 | 0 | | | | | | | | | | | | | 1 | 3 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 5 | 0 | | | | | | | | | | | | | 3 | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 5 | 5 | | | | | | | 3 | 1 | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 5 | 5 | | | | | | 4 | | 1 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 5 | 0 | | | | | | | | | | | 2 | 2 | 1 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 5 | 0 | | | | | | | | | | | | | 4 | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 5 | 0 | | | | | | | | | | | | 4 | | 1 | | | | | | | | | | |
| Trimethoprim | 2 | 5 | 0 | | | | | | | | | | 5 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 5 | 0 | | | | | | | | | 2 | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 5 | 0 | | | | | | | | | | | | 5 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 5 | 0 | | | | | | | | | | | | | | 1 | 3 | | 1 | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Rabbits - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Rabbits | |
|---|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Turkeys - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

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

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Turkeys - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Turkeys | |
|---|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Enteritidis | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 81 | 2 | | | | | | | | | 14 | 60 | 5 | | 1 | 1 | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 81 | 1 | | | | | | | | | | | | | 78 | 2 | | | | 1 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 81 | 11 | | | | | | | | | | | | 6 | 48 | 8 | 6 | 2 | 4 | 7 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 81 | 5 | | | | | | | | | | | | 2 | 41 | 32 | 1 | 1 | 4 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 81 | 0 | | | | | | | | | | | | 3 | 67 | 7 | 4 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 81 | 81 | | | | | | | 52 | 13 | 3 | 1 | | | 12 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 81 | 81 | | | | 15 | | 52 | | 3 | 4 | 1 | 5 | | | 1 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 81 | 19 | | | | | | | | | | | 12 | 45 | 5 | | | 19 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 81 | 13 | | | | | | | | | | | | | 63 | 4 | 1 | 1 | 12 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 81 | 9 | | | | | | | | | | | 14 | 53 | 4 | 1 | 2 | 2 | 5 | | | | | | | |
| Trimethoprim | 2 | 81 | 12 | | | | | | | | | | 63 | 4 | 2 | 1 | | | 11 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 81 | 12 | | | | | | | | | 58 | 11 | | | 1 | | 11 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 81 | 69 | | | | | | | | | | | | 12 | 69 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 81 | 13 | | | | | | | | | | | | | | | | 5 | 47 | 14 | 2 | | | | 13 | |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Enteritidis Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Give* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Give | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 5 | 0 | | | | | | | | | | 5 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 5 | 0 | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 5 | 0 | | | | | | | | | | | | | | 5 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 5 | 0 | | | | | | | | | | | | | 2 | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 5 | 0 | | | | | | | | | | | | | 4 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 5 | 5 | | | | | | | 5 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 5 | 5 | | | | 1 | | 4 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 5 | 1 | | | | | | | | | | | 4 | | | | 1 | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 5 | 0 | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 5 | 0 | | | | | | | | | | | 3 | 2 | | | | | | | | | | | | |
| Trimethoprim | 2 | 5 | 0 | | | | | | | | | | 5 | | | | | | | | | | | | | | |
| Cephalosporins - Cefazidim | 2 | 5 | 0 | | | | | | | | | 4 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 5 | 0 | | | | | | | | | | | | 5 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 5 | 0 | | | | | | | | | | | | | | | | 1 | 2 | 1 | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Give* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Give Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Livingstone* in Pigs - breeding animals - raised under controlled housing conditions -
 quantitative data [Dilution method]

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

| S. Livingstone | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 14 | 0 | | | | | | | | | | 12 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 14 | 0 | | | | | | | | | | | | | 14 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 14 | 2 | | | | | | | | | | | | | | 4 | 8 | | 1 | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 14 | 1 | | | | | | | | | | | | | 2 | 9 | 2 | 1 | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 14 | 1 | | | | | | | | | | | | | 6 | 7 | | 1 | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 14 | 14 | | | | | | | 5 | 6 | | | | | 3 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 14 | 14 | | | | 2 | | 9 | | 2 | | | | 1 | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 14 | 3 | | | | | | | | | | | 9 | 2 | | | | 3 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 14 | 3 | | | | | | | | | | | | | 11 | | | 2 | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 14 | 2 | | | | | | | | | | | | 10 | | 2 | | | 2 | | | | | | | |
| Trimethoprim | 2 | 14 | 3 | | | | | | | | | | 10 | 1 | | | | | 3 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 14 | 3 | | | | | | | | | 2 | 9 | | | | | 3 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 14 | 0 | | | | | | | | | | | | 14 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 14 | 2 | | | | | | | | | | | | | | | | 1 | 9 | 2 | | | | 2 | | |

Table Antimicrobial susceptibility testing of *S. Livingstone* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Livingstone | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| | unknown | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Amsterdam* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Amsterdam | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Amsterdam* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Amsterdam Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Idikan* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Idikan | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | | | 2 | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 1 | | | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 1 | 2 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 2 | | | | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 2 | | | | | | | | | | | 1 | | | | | 2 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 1 | | | | | | | | | | | | | 2 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 1 | | | | | | | | | | | | 2 | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 3 | 2 | | | | | | | | | | 1 | | | | | | 2 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 2 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 2 | | | | | | | | | | | | | | | | | | | 1 | | | 2 | | |

Table Antimicrobial susceptibility testing of *S. Idikan* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Idikan Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Jerusalem* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Jerusalem | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Jerusalem* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Jerusalem Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Bredeney* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Bredeney | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Bredeney* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Bredeney Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Agona* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Agona | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | 1 | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Agona* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Agona | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Kottbus* in Ducks - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Kottbus | Ducks | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Kottbus* in Ducks - quantitative data [Dilution method]

| S. Kottbus Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Ducks | |
|---|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 20 | 1 | | | | | | | | | 1 | 18 | | | | | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 20 | 2 | | | | | | | | | | | | 17 | 1 | | | 1 | | 1 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 20 | 16 | | | | | | | | | | | | | 3 | 1 | | | | 16 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 20 | 0 | | | | | | | | | | | | | 4 | 16 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 20 | 0 | | | | | | | | | | | | | 18 | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 20 | 20 | | | | | | | 15 | 3 | | | | | | | 2 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 20 | 20 | | | | | | 17 | 1 | | | 1 | | | | | | | 1 | | | | | | | |
| Penicillins - Ampicillin | 4 | 20 | 17 | | | | | | | | | | | 3 | | | | | | 17 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 20 | 2 | | | | | | | | | | | | | 16 | 2 | | | | 2 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 20 | 16 | | | | | | | | | | | | 4 | | | | | | 16 | | | | | | |
| Trimethoprim | 2 | 20 | 6 | | | | | | | | | | 14 | | | | 1 | 1 | | 4 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 20 | 2 | | | | | | | | | 15 | 3 | | | | | | 2 | | | | | | | | |
| Polymyxins - Colistin | 2 | 20 | 2 | | | | | | | | | | | | 18 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 20 | 16 | | | | | | | | | | | | | | | | | 2 | 2 | | | | | 16 | |

Table Antimicrobial susceptibility testing of S. 4,5,12:i:- in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. 4,5,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | |
|--|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. 9:-:-* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

| S. 9:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | 2 | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | | 1 | 2 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 1 | | | | | | | | | | | | | 2 | | | | | 1 | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 2 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | 2 | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 1 | | | | | | | | | | | 2 | | | | | | | 1 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 1 | | | | | | | | | | | 2 | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | | | | | 1 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 2 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | | | 2 | | | | 1 | |

Table Antimicrobial susceptibility testing of S. 9:-:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 9:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in Pigs - breeding animals - raised under controlled housing conditions -
 quantitative data [Dilution method]

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

| S. Paratyphi B | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 2 | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 2 | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Trimethoprim | 2 | 2 | 2 | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Paratyphi B* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Paratyphi B | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 3,19:-:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 3,19:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 1 | | | | | | | | | | | | 2 | | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 2 | | | | | 1 | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | | 1 | | 2 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 2 | | | | | | | | | | | 1 | | | | 1 | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 2 | | | | | | | | | | | | | | | 1 | | 2 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 1 | | | | | | | | | | | | 2 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 1 | | | | | | | | 1 | 1 | | | | | | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | 2 | | | | | | 1 | |

Table Antimicrobial susceptibility testing of S. 3,19:-:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 3,19:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Thompson* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Thompson | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Thompson* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Thompson Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Sandiego* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Sandiego | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Sandiego* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Sandiego Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Worthington* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Worthington | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Cefazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Worthington* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Worthington Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Infantis* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

| S. Infantis | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 28 | 3 | | | | | | | | | 3 | 21 | 1 | | 2 | 1 | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 28 | 2 | | | | | | | | | | | | | 26 | | 1 | 1 | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 28 | 2 | | | | | | | | | | | | | | 19 | 4 | 3 | 1 | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 28 | 0 | | | | | | | | | | | | | 7 | 21 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 28 | 0 | | | | | | | | | | | | 1 | 17 | 10 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 28 | 28 | | | | | | | 1 | 20 | 2 | 1 | | | 4 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 28 | 28 | | | | 14 | | 9 | | | 1 | 4 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 28 | 6 | | | | | | | | | | | 14 | 7 | 1 | | | 6 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 28 | 5 | | | | | | | | | | | | | 23 | | | 5 | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 28 | 2 | | | | | | | | | | | 9 | 15 | 2 | | | | 2 | | | | | | | |
| Trimethoprim | 2 | 28 | 5 | | | | | | | | | | 22 | 1 | | | | | 5 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 28 | 4 | | | | | | | | | 2 | 22 | | | | 1 | 3 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 28 | 4 | | | | | | | | | | | | 24 | 4 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 28 | 6 | | | | | | | | | | | | | | | | 13 | 7 | 2 | | | | 6 | | |

Table Antimicrobial susceptibility testing of *S. Infantis* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Infantis Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:-:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 4,12:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | 1 | | | |

Table Antimicrobial susceptibility testing of S. 4,12:-:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 4,12:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Poultry, unspecified - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Poultry, unspecified | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Poultry, unspecified - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Poultry, unspecified | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Solipeds, domestic - horses - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Solipeds, domestic - horses | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Solipeds, domestic - horses - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Solipeds, domestic - horses | |
|--|-----------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:d:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 6,7:d:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of S. 6,7:d:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 6,7:d:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4:i:- in Pigs - breeding animals - raised under controlled housing conditions - quantitative data

[Dilution method]

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

| S. 4:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 8 | 0 | | | | | | | | | | 6 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 8 | 0 | | | | | | | | | | | | | 8 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 8 | 5 | | | | | | | | | | | | | | 1 | 2 | | | 5 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 8 | 0 | | | | | | | | | | | | | 2 | 4 | 2 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 8 | 0 | | | | | | | | | | | | | 6 | | 2 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 8 | 8 | | | | | | | 1 | 5 | | 2 | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 8 | 8 | | | | 1 | | 3 | | 2 | | 2 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 8 | 6 | | | | | | | | | | | 1 | 1 | | | | 6 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 8 | 2 | | | | | | | | | | | | | 4 | 1 | 1 | | 2 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 8 | 5 | | | | | | | | | | | | 3 | | | | | 5 | | | | | | | |
| Trimethoprim | 2 | 8 | 7 | | | | | | | | | | 1 | | | | | | 7 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 8 | 0 | | | | | | | | | 5 | 2 | | 1 | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 8 | 1 | | | | | | | | | | | | 7 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 8 | 5 | | | | | | | | | | | | | | | | 1 | | 2 | | | | | 5 | |

Table Antimicrobial susceptibility testing of S. 4:i:- in Pigs - breeding animals - raised under controlled housing conditions - quantitative data

[Dilution method]

| S. 4:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | |
|---|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Enteritidis | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 2 | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | 1 | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | 1 | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 2 | | | | | | | | | | | | | | | 1 | | 1 | | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 2 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 0 | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Enteritidis Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | |
|---|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Gloucester* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Gloucester | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Gloucester* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Gloucester | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Lexington* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Lexington | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 6 | 0 | | | | | | | | | | 4 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 6 | 0 | | | | | | | | | | | | | 6 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 6 | 3 | | | | | | | | | | | | | | | 2 | 1 | 1 | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 6 | 0 | | | | | | | | | | | | | | 6 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 6 | 0 | | | | | | | | | | | | | 1 | 5 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 6 | 6 | | | | | | | | 1 | 1 | 1 | | 1 | 2 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 6 | 6 | | | | | | | | | 5 | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 6 | 6 | | | | | | | | | | | | | | | | 6 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 6 | 6 | | | | | | | | | | | | | | | | | 6 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 6 | 4 | | | | | | | | | | | | 1 | 1 | | 1 | 1 | 2 | | | | | | | |
| Trimethoprim | 2 | 6 | 6 | | | | | | | | | | | | | | | | 6 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 6 | 2 | | | | | | | | | 2 | | 2 | | | 1 | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 6 | 3 | | | | | | | | | | | | 3 | 3 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 6 | 5 | | | | | | | | | | | | | | | | | 1 | | | | | | 5 | |

Table Antimicrobial susceptibility testing of *S. Lexington* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Lexington Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Livingstone | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 30 | 4 | | | | | | | | | | 21 | 5 | | | 2 | 1 | 1 | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 30 | 4 | | | | | | | | | | | | | 26 | | | | 2 | 2 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 30 | 7 | | | | | | | | | | | | | 4 | 4 | 14 | 1 | 3 | 4 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 30 | 1 | | | | | | | | | | | | | | 28 | 1 | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 30 | 0 | | | | | | | | | | | | | 16 | 14 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 30 | 30 | | | | | | | 12 | 9 | 1 | | 2 | | 6 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 30 | 30 | | | | 8 | | 14 | 1 | 1 | 4 | | | 1 | | 1 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 30 | 6 | | | | | | | | | | | 16 | 6 | 2 | 1 | 1 | 4 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 30 | 5 | | | | | | | | | | | | | 22 | | 3 | 1 | 4 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 30 | 7 | | | | | | | | | | | 2 | 21 | | | | 1 | 6 | | | | | | | |
| Trimethoprim | 2 | 30 | 8 | | | | | | | | | | 22 | | | | 2 | | 6 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 30 | 8 | | | | | | | | | 10 | 11 | 1 | | 1 | 1 | 6 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 30 | 5 | | | | | | | | | | | | 25 | 5 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 30 | 4 | | | | | | | | | | | | | | | | | 25 | 1 | | | | | 4 | |

Table Antimicrobial susceptibility testing of *S. Livingstone* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Livingstone Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Mbandaka | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|---|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 16 | 1 | | | | | | | | | | 12 | 3 | | | | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 16 | 1 | | | | | | | | | | | | | 15 | | | | | 1 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 16 | 2 | | | | | | | | | | | | | 1 | 8 | 4 | 1 | 1 | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 16 | 1 | | | | | | | | | | | | | 1 | 13 | 1 | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 16 | 1 | | | | | | | | | | | | | 5 | 9 | 1 | | 1 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 16 | 16 | | | | | | | 6 | 6 | 4 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 16 | 16 | | | | 13 | | | 1 | | | | 2 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 16 | 2 | | | | | | | | | | | 11 | 3 | | | | | | 2 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 16 | 2 | | | | | | | | | | | | | 14 | | | | | 2 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 16 | 2 | | | | | | | | | | | 2 | 9 | 3 | | | | | 1 | 1 | | | | | |
| Trimethoprim | 2 | 16 | 2 | | | | | | | | | | 14 | | | | | | | | 2 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 16 | 0 | | | | | | | | | 1 | 15 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 16 | 2 | | | | | | | | | | | | 14 | 2 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 16 | 1 | | | | | | | | | | | | | | | | | | 1 | 4 | 8 | 2 | | | 1 |

Table Antimicrobial susceptibility testing of *S. Mbandaka* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Mbandaka Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Minnesota* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Minnesota | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|-----|-----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|-----|-----|-----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 126 | 4 | | | | | | | | | | 114 | 8 | | 1 | | 2 | 1 | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 126 | 5 | | | | | | | | | | | | | 118 | 3 | 1 | | | 4 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 126 | 25 | | | | | | | | | | | | | 1 | 62 | 22 | 16 | 4 | 21 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 126 | 14 | | | | | | | | | | | | | 1 | 107 | 4 | 5 | 9 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 126 | 5 | | | | | | | | | | | | | 8 | 108 | 5 | 1 | 4 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 126 | 126 | | | | | | | 35 | 62 | 5 | 2 | 1 | 2 | 19 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 126 | 126 | | | | 3 | | 91 | 3 | 4 | 12 | 8 | | | 1 | 4 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 126 | 55 | | | | | | | | | | | 62 | 7 | 2 | 1 | 2 | 52 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 126 | 26 | | | | | | | | | | | | | 94 | 4 | 2 | 3 | 23 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 126 | 32 | | | | | | | | | | | 8 | 82 | 2 | 2 | 5 | 3 | 24 | | | | | | | |
| Trimethoprim | 2 | 126 | 42 | | | | | | | | | | 82 | | 2 | 1 | 2 | 1 | 38 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 126 | 18 | | | | | | | | | 50 | 53 | 1 | 4 | 1 | 3 | 14 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 126 | 5 | | | | | | | | | | | | 121 | 5 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 126 | 55 | | | | | | | | | | | | | | | | 1 | 15 | 34 | 21 | 6 | | 49 | | |

Table Antimicrobial susceptibility testing of *S. Minnesota* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Minnesota Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Anatum* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Anatum | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 5 | 0 | | | | | | | | | | 4 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 5 | 0 | | | | | | | | | | | | | 5 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 5 | 2 | | | | | | | | | | | | | | 2 | 1 | | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 5 | 1 | | | | | | | | | | | | | | 3 | 1 | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 5 | 1 | | | | | | | | | | | | | 2 | 1 | 1 | | 1 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 5 | 5 | | | | | | | | 2 | 2 | 1 | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 5 | 5 | | | | | | 2 | 1 | | 1 | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 5 | 2 | | | | | | | | | | | 2 | 1 | | | | | 2 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 5 | 2 | | | | | | | | | | | | | 2 | 1 | | | 2 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 5 | 1 | | | | | | | | | | | | 3 | 1 | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 5 | 2 | | | | | | | | | | 3 | | | | | | | 2 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 5 | 0 | | | | | | | | | | 4 | 1 | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 5 | 0 | | | | | | | | | | | | 5 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 5 | 2 | | | | | | | | | | | | | | | | | 2 | 1 | | | | | 2 | |

Table Antimicrobial susceptibility testing of *S. Anatum* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Anatum | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Idikan* in Goats - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Idikan | Goats | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Idikan* in Goats - quantitative data [Dilution method]

| S. Idikan Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Goats | |
|--|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Djugu* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Djugu | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Djugu* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Djugu Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Trimethoprim | 2 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | 2 | |

Table Antimicrobial susceptibility testing of S. 4,12:i:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 4,12:i:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Other serovars in Pigs - breeding animals - raised under controlled housing conditions -
 quantitative data [Dilution method]

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

| Other serovars | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 1 | | | | | | | | | | | | | 1 | | | | | 1 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 1 | | | | | | | | | | | | | | | 1 | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 1 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 1 | | 1 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 2 | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | |

Table Antimicrobial susceptibility testing of Other serovars in Pigs - breeding animals - raised under controlled housing conditions -
quantitative data [Dilution method]

| Other serovars | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Pigs - breeding animals - raised under controlled housing conditions -
 quantitative data [Dilution method]

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

| S. Senftenberg | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 0 | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | | | 1 | | | | | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 1 | | | | | | | | | | | 1 | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 1 | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | 1 | | |

Table Antimicrobial susceptibility testing of *S. Senftenberg* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Senftenberg | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Ouakam* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Ouakam | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 2 | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 1 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 1 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | 1 | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 2 | 1 | | | | | | | | | | | 1 | | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | | 1 | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 2 | | | | | | | | | | | | | | | | 1 | 1 | | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 2 | 2 | | | | | | | | | | | | | 1 | | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 1 | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | 2 | |

Table Antimicrobial susceptibility testing of *S. Ouakam* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Ouakam Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Regent* in Ducks - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Regent | Ducks | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 4 | 0 | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 4 | 0 | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 4 | 1 | | | | | | | | | | | | | | 2 | | 1 | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 4 | 0 | | | | | | | | | | | | | | 3 | 1 | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 4 | 0 | | | | | | | | | | | | | 1 | 2 | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 4 | 4 | | | | | | | 1 | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 4 | 4 | | | | | | | 1 | | 2 | | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 4 | 1 | | | | | | | | | | | 2 | 1 | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 4 | 3 | | | | | | | | | | | | | 1 | | | | | 3 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 4 | 2 | | | | | | | | | | | | 1 | 1 | | | | 1 | 1 | | | | | | |
| Trimethoprim | 2 | 4 | 2 | | | | | | | | | | 2 | | | | | | | | 2 | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 4 | 0 | | | | | | | | | 3 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 4 | 1 | | | | | | | | | | | | 3 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 4 | 2 | | | | | | | | | | | | | | | 1 | | | | | 1 | | | 2 | |

Table Antimicrobial susceptibility testing of *S. Regent* in Ducks - quantitative data [Dilution method]

| S. Regent Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Ducks | |
|--|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Rissen* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Rissen | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|---|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 26 | 0 | | | | | | | | | | 20 | 5 | 1 | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 26 | 1 | | | | | | | | | | | | | 25 | | | | | 1 | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 26 | 1 | | | | | | | | | | | | | 1 | 20 | 3 | 1 | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 26 | 2 | | | | | | | | | | | | | 1 | 23 | | | 2 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 26 | 0 | | | | | | | | | | | | | 5 | 20 | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 26 | 26 | | | | | | | 2 | 17 | 2 | | 1 | 1 | 3 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 26 | 26 | | | | 16 | | 6 | 1 | | 2 | | | | 1 | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 26 | 9 | | | | | | | | | | | 13 | 4 | | 1 | | 8 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 26 | 3 | | | | | | | | | | | | | 23 | | | | 3 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 26 | 4 | | | | | | | | | | | | | 22 | | | | 2 | 2 | | | | | | |
| Trimethoprim | 2 | 26 | 4 | | | | | | | | | | 18 | 1 | 3 | | | | 4 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 26 | 4 | | | | | | | | | 1 | 20 | | 1 | 2 | | 2 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 26 | 0 | | | | | | | | | | | | | 26 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 26 | 5 | | | | | | | | | | | | | | | | 1 | 12 | 6 | 2 | | | | 5 | |

Table Antimicrobial susceptibility testing of *S. Rissen* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Rissen Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Saintpaul* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Saintpaul | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Saintpaul* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Saintpaul Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Hadar* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Hadar | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 3 | | | | | | | | | | | | | | | | | 1 | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 1 | 1 | | | 1 | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 2 | | | | | | | | | | | 1 | | | | | | 2 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 3 | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 3 | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | 2 | | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 1 | | | | | | | | | 2 | | | | | | | 1 | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 1 | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | 2 | | | | | | 1 | |

Table Antimicrobial susceptibility testing of *S. Hadar* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Hadar Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Infantis* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Infantis | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 1 | | | | | | | | | | | | | | 1 | 1 | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | | | 2 | 1 | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 1 | | | | | | | | | | | 1 | 1 | | | | | 1 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 0 | | | | | | | | | | | | | | | | | 3 | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Infantis* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Infantis | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Brandenburg* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Brandenburg | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of S. Brandenburg in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. Brandenburg Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,8:z10:- in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 6,8:z10:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Tetracyclines - Tetracycline | 8 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | | 1 | |

Table Antimicrobial susceptibility testing of S. 6,8:z10:- in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 6,8:z10:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Dublin* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Dublin | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | 1 | | | | | |

Table Antimicrobial susceptibility testing of *S. Dublin* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Dublin Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Pigeons - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Pigeons | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 8 | 0 | | | | | | | | | | 6 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 8 | 0 | | | | | | | | | | | | | 7 | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 8 | 1 | | | | | | | | | | | | | | 1 | 5 | 1 | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 8 | 2 | | | | | | | | | | | | | 2 | 3 | 1 | 1 | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 8 | 0 | | | | | | | | | | | | | 6 | 1 | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 8 | 8 | | | | | | | 6 | | | | | | 2 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 8 | 8 | | | | 1 | | 5 | | | 2 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 8 | 4 | | | | | | | | | | | 3 | 1 | | | | | 4 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 8 | 3 | | | | | | | | | | | | | 5 | | | | 3 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 8 | 4 | | | | | | | | | | | | 3 | 1 | | 1 | | 3 | | | | | | | |
| Trimethoprim | 2 | 8 | 4 | | | | | | | | | | 4 | | | | | | | 4 | | | | | | | |
| Cephalosporins - Cefazidim | 2 | 8 | 1 | | | | | | | | | 6 | 1 | | | 1 | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 8 | 1 | | | | | | | | | | | | 7 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 8 | 4 | | | | | | | | | | | | | | 1 | 2 | 1 | | | | | | | 4 | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Pigeons - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigeons | |
|--|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Goats - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Goats | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Goats - quantitative data [Dilution method]

| S. Typhimurium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Goats | |
|---|---------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of S. 6,7:z29 in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| S. 6,7:z29 | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 8 | 0 | | | | | | | | | | 8 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 8 | 0 | | | | | | | | | | | | | 8 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 8 | 2 | | | | | | | | | | | | | 2 | | 2 | 2 | | 2 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 8 | 0 | | | | | | | | | | | | | | 8 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 8 | 1 | | | | | | | | | | | | | 3 | 4 | | 1 | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 8 | 8 | | | | | | | 1 | 4 | | | | | 3 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 8 | 8 | | | | 2 | | 3 | | | 2 | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 8 | 3 | | | | | | | | | | | 4 | 1 | | | | 3 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 8 | 3 | | | | | | | | | | | | | 5 | | | | 3 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 8 | 1 | | | | | | | | | | | | 7 | | | | | 1 | | | | | | | |
| Trimethoprim | 2 | 8 | 4 | | | | | | | | | | 4 | | | | | | 4 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 8 | 4 | | | | | | | | | 2 | 2 | | | | 2 | 2 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 8 | 0 | | | | | | | | | | | | 8 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 8 | 3 | | | | | | | | | | | | | | | | | 3 | 2 | | | | | 3 | |

Table Antimicrobial susceptibility testing of S. 6,7:z29 in Gallus gallus (fowl) - quantitative data [Dilution method]

| S. 6,7:z29 Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of Other serovars in Gallus gallus (fowl) - quantitative data [Dilution method]

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

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

Table Antimicrobial susceptibility testing of Other serovars in Gallus gallus (fowl) - quantitative data [Dilution method]

| Other serovars Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Senftenberg | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 18 | 0 | | | | | | | | | 2 | 14 | 2 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 18 | 0 | | | | | | | | | | | | | 17 | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 18 | 1 | | | | | | | | | | | | | | 8 | 8 | 1 | | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 18 | 0 | | | | | | | | | | | | | 1 | 17 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 18 | 0 | | | | | | | | | | | | | 12 | 6 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 18 | 18 | | | | | | | 3 | 14 | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 18 | 18 | | | | 7 | | 8 | | | 2 | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 18 | 4 | | | | | | | | | | | 9 | 5 | | | | | 4 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 18 | 2 | | | | | | | | | | | | | 16 | | | | 2 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 18 | 1 | | | | | | | | | | | 1 | 15 | | 1 | | | 1 | | | | | | | |
| Trimethoprim | 2 | 18 | 1 | | | | | | | | | | 17 | | | | | | | 1 | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 18 | 0 | | | | | | | | | 7 | 10 | | 1 | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 18 | 0 | | | | | | | | | | | | 18 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 18 | 4 | | | | | | | | | | | | | | | | 3 | 7 | 3 | 1 | 1 | | 3 | | |

Table Antimicrobial susceptibility testing of *S. Senftenberg* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| S. Senftenberg Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Rideau* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| S. Rideau | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | | |

Table Antimicrobial susceptibility testing of *S. Rideau* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| S. Rideau | Pigs - breeding animals - raised under controlled housing conditions | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Montevideo* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

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

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

Table Antimicrobial susceptibility testing of S. Montevideo in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| S. Montevideo | Cattle (bovine animals) - mixed herds | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Dublin* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Dublin | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|----|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 10 | 0 | | | | | | | | | 2 | 8 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 10 | 0 | | | | | | | | | | | | | 10 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 10 | 6 | | | | | | | | | | | | | | 2 | 1 | 1 | 5 | 1 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 10 | 6 | | | | | | | | | | | | 1 | 2 | 1 | | | 6 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 10 | 0 | | | | | | | | | | | | 1 | 4 | 4 | 1 | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 10 | 10 | | | | | | | 7 | 1 | 1 | 1 | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 10 | 10 | | | | 3 | | | | | 3 | 3 | 1 | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 10 | 3 | | | | | | | | | | 2 | 3 | 2 | | | 1 | 2 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 10 | 7 | | | | | | | | | | | | | 3 | | | | 7 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 10 | 0 | | | | | | | | | | | 4 | 6 | | | | | | | | | | | | |
| Trimethoprim | 2 | 10 | 1 | | | | | | | | | | 8 | 1 | | | | | 1 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 10 | 0 | | | | | | | | | 7 | 2 | 1 | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 10 | 8 | | | | | | | | | | | | 2 | 8 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 10 | 8 | | | | | | | | | | | | | | | | 1 | | 1 | | 1 | | 7 | | |

Table Antimicrobial susceptibility testing of S. Dublin in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| S. Dublin Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - mixed herds | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Livingstone* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

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

Table Antimicrobial susceptibility testing of S. Livingstone in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| S. Livingstone | Cattle (bovine animals) - mixed herds | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. 9:-:-* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

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

| S. 9:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Amphenicols - Florfenicol | 16 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 1 | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 1 | 1 | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 1 | 0 | | | | | | | | | | | | | | | | | | | | | | 1 | | |

Table Antimicrobial susceptibility testing of S. 9:-:- in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| S. 9:-:- Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - mixed herds | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Typhimurium | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 25 | 0 | | | | | | | | | 1 | 21 | 3 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 25 | 0 | | | | | | | | | | | | | 25 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 25 | 11 | | | | | | | | | | | | | | 9 | 4 | 1 | 2 | 9 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 25 | 5 | | | | | | | | | | | | | 5 | 14 | 1 | | 5 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 25 | 4 | | | | | | | | | | | | | 17 | 3 | 1 | 4 | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 25 | 25 | | | | | | | 22 | 2 | 1 | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 25 | 25 | | | | 7 | | 13 | 2 | | 2 | 1 | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 25 | 21 | | | | | | | | | | | 3 | | 1 | | | 21 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 25 | 4 | | | | | | | | | | | | | 20 | 1 | | 1 | 3 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 25 | 12 | | | | | | | | | | | 2 | 11 | | | | 6 | 6 | | | | | | | |
| Trimethoprim | 2 | 25 | 2 | | | | | | | | | | 23 | | | | | | 2 | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 25 | 0 | | | | | | | | | 21 | 4 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 25 | 0 | | | | | | | | | | | | 25 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 25 | 18 | | | | | | | | | | | | | | | | 2 | 5 | | | | | 18 | | |

Table Antimicrobial susceptibility testing of *S. Typhimurium* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| S. Typhimurium | Cattle (bovine animals) - mixed herds | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of *S. Enteritidis* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. Enteritidis | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 0 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 32 | 3 | 0 | | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 1 | | | | | | | | | | | | | 1 | 1 | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 3 | 0 | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 3 | 3 | | | | | | | 2 | 1 | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 3 | 3 | | | | 1 | | 1 | | | 1 | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 3 | 0 | | | | | | | | | | | 1 | 2 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 3 | 1 | | | | | | | | | | | | | 2 | | | | 1 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 3 | 0 | | | | | | | | | | | 1 | 2 | | | | | | | | | | | | |
| Trimethoprim | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Cephalosporins - Ceftazidim | 2 | 3 | 0 | | | | | | | | | 2 | 1 | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 256 | 3 | 1 | | | | | | | | | | | | | | | | | 1 | 1 | | | | | 1 | |

Table Antimicrobial susceptibility testing of S. Enteritidis in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| S. Enteritidis | Cattle (bovine animals) - mixed herds | |
|----------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Cut-off values for antibiotic resistance testing of Salmonella in Animals

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|-----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 2 | |
| | Streptomycin | | 32 | |
| Amphenicols | Chloramphenicol | | 16 | |
| Cephalosporins | Cefotaxime | | 0.5 | |
| Fluoroquinolones | Ciprofloxacin | | 0.06 | |
| Penicillins | Ampicillin | | 4 | |
| Quinolones | Nalidixic acid | | 16 | |
| Sulfonamides | Sulfonamides | | 256 | |
| Tetracyclines | Tetracycline | | 8 | |
| Trimethoprim | Trimethoprim | | 2 | |

Table Cut-off values for antibiotic resistance testing of Salmonella in Feed

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|-----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 2 | |
| | Streptomycin | | 32 | |
| Amphenicols | Chloramphenicol | | 16 | |
| Cephalosporins | Cefotaxime | | 0.5 | |
| Fluoroquinolones | Ciprofloxacin | | 0.06 | |
| Penicillins | Ampicillin | | 4 | |
| Quinolones | Nalidixic acid | | 16 | |
| Sulfonamides | Sulfonamides | | 256 | |
| Tetracyclines | Tetracycline | | 8 | |
| Trimethoprim | Trimethoprim | | 2 | |

Table Cut-off values for antibiotic resistance testing of Salmonella in Food

| Test Method Used | Standard methods used for testing |
|------------------|-----------------------------------|
| Broth dilution | NCCLS/CLSI |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|-----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | EFSA | 2 | |
| | Kanamycin | | 8 | |
| | Streptomycin | EFSA | 32 | |
| Amphenicols | Chloramphenicol | EFSA | 16 | |
| | Florfenicol | | 16 | |
| Cephalosporins | Cefotaxime | EFSA | 0.5 | |
| | Ceftazidim | | 2 | |
| Fluoroquinolones | Ciprofloxacin | EFSA | 0.06 | |
| Penicillins | Ampicillin | EFSA | 4 | |
| Quinolones | Nalidixic acid | EFSA | 16 | |
| Sulfonamides | Sulfonamides | EFSA | 256 | |
| Tetracyclines | Tetracycline | EFSA | 8 | |
| Trimethoprim | Trimethoprim | EFSA | 2 | |

Table Cut-off values for antibiotic resistance testing of Salmonella in Food

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------|----------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Polymyxins | Colistin | | 2 | |

2.2 CAMPYLOBACTERIOSIS

2.2.1 General evaluation of the national situation

A. Thermophilic Campylobacter general evaluation

History of the disease and/or infection in the country

Campylobacteriosis is a leading bacterial foodborne gastrointestinal disease in humans in all parts of the world. It can also cause post-infectious complications as Guillain-Barré syndrome.

In 80% of the cases, the infection route of campylobacteriosis is food, but domestic animals including pets can also be involved. The transmission of this pathogen to humans is mostly due to consumption of undercooked poultry, pork and beef, unpasteurized milk, contaminated drinking water, or contacts with the faeces of infected pets. This report will focus on *Campylobacter jejuni* and *Campylobacter coli* that are the principal strains causing enteritis in humans.

The contamination with *Campylobacter* of poultry carcasses and meat is monitored since 2000 by the Federal Agency for the Safety of the Food Chain. The rate of positive poultry samples is stable, but high. Chicken and layer meat have to be well cooked and cross-contamination should be avoided during preparation.

2.2.2 Campylobacter in foodstuffs

A. Thermophilic Campylobacter in Broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

A monitoring program was organized by FASFC to evaluate the level of Campylobacter spp. contamination of broiler meat in Belgian slaughterhouses and cutting plants. Campylobacters is counted on carcasses and cuts of poultry because it is especially the quantitative load of Campylobacter which plays a role in the stake in danger of the consumers.

Frequency of the sampling

At slaughterhouse and cutting plant

Sampling distributed evenly throughout the year

At meat processing plant

Sampling distributed evenly throughout the year

At retail

Sampling distributed evenly throughout the year

Type of specimen taken

At slaughterhouse and cutting plant

Neck skin samples and cuts of broilers with and without skin

At meat processing plant

Meat, minced meat, sausages and other

At retail

Meat, minced meat, sausages and other

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

The matrices were carcasses, cuts and meat preparation of broilers. The Campylobacter spp. contamination levels were analyzed : 1g carcasses, 1g cutting meat and 1g meat preparation.

At meat processing plant

The samples were about 200 g of meat. The amount of Campylobacter has been assessed in 1g of sample.

At retail

The amount of Campylobacter has been assessed in 1g of sample.

Definition of positive finding

At slaughterhouse and cutting plant

A sample is considered positive in case of detection of more than 100 cfu Campylobacter in the sample.

At meat processing plant

Belgium - 2012 Report on trends and sources of zoonoses

A sample is considered positive in case of detection of more than 100 cfu Campylobacter in the sample.

At retail

A sample is considered positive in case of detection of more than 100 cfu Campylobacter in the sample.

Diagnostic/analytical methods used

At slaughterhouse and cutting plant

Bacteriological method: ISO 10272:1995

B. C.,thermophilic in food

Monitoring system

Sampling strategy

A monitoring program was organized by the Federal Agency for the Safety of the Food Chain. More than 200 Belgian slaughterhouses, more than 100 meat cutting plants and more than 100 retail trades representative of the Belgian production of carcasses and meat, were selected for this study. The samples assayed were carcasses and minced meat from pork, carcasses, cuts and meat preparation from chicken, and layer carcasses. Sampling was done by a specially trained staff of the Federal Agency for the Safety of the Food Chain.

Frequency of the sampling

Samples have been taken every week from the first to the 52nd week, except during the 30th week.

Type of specimen taken

meat and dairy products

Methods of sampling (description of sampling techniques)

Sampling of pork carcasses was done by means of swabs (4 areas from the same half carcass constituting 600 cm² were putted in the same stomacher bag).

The carcass samples of broiler and layer consisted of 10g of neck skin. The other samples were about 200g of meat. 10g to 25g representative of the whole sample were weighted in the laboratory, and the detection of *Campylobacter* has been assessed in these quantities or dilutions: 25g for pork minced meat, 600 cm² (pork carcasses), 0,01g for chicken carcasses and layer carcasses, 1g for chicken meat preparation, and for chicken cuts, 0,1g and 25g.

No pooling has been done.

Definition of positive finding

A sample is considered to be positive after biochemical or genetic confirmation of one *Campylobacter* in the sample.

Diagnostic/analytical methods used

For detection of *Campylobacter* in meat samples or swabs the official Belgian SP-VG-M003 method was used following :

- selective enrichment on Preston at 42°C for 48 h,
- isolation on mCCDA at 42°C for 24 h - 120 h,
- confirmation of minimum 1 colony with miniaturised biochemical tests or by PCR typing.

Measures in case of the positive findings or single cases

Measures to be taken in the case of a non-compliant result:

- Notification of the producer or importer
- Possibility of a counter analysis
- Destruction of the non compliant batch or single sample
- Further investigation: additional sampling, possible recall, RASFF, ...

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

The results showed that, even if the contamination by *Campylobacter* spp. of pig carcasses is zero, the pork represents a relatively low risk for the consumer seen the evolution of this contamination during the operations of cut.

Table Campylobacter in other food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Campylobacter | C. coli | C. jejuni |
|---|-----------------------|--------------------|-------------------|-----------------------------|---------------|---------------|---------------|--------------|--|---------|-----------|
| Meat from pig - fresh - at slaughterhouse | PRI 002 | Objective sampling | Official sampling | food sample > carcass swabs | Domestic | Single | 600cm2 | 612 | 62 | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail | DIS 823 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 9 | 0 | | |
| Meat from bovine animals - fresh - at retail | DIS 802 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 6 | 0 | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail | DIS 823 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 33 | 0 | | |
| Milk, cows' - raw milk - intended for direct human consumption - at farm | PRI 013 | Unspecified | Official sampling | food sample | Domestic | Batch | 1 ml | 40 | 0 | | |
| Live bivalve molluscs - at retail | DIS 806 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 92 | 0 | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm | PRI 008 | Unspecified | Official sampling | food sample | Domestic | Batch | 1 g | 11 | 0 | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail | DIS 818 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 22 | 0 | | |
| Meat from bovine animals - minced meat - intended to be eaten cooked - at retail | DIS 888 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 12 | 0 | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail | DIS 888 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 8 | 0 | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail | DIS 823 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 4 | 0 | | |
| Meat from other animal species or not specified - fresh - at retail | DIS 883 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 80 | 0 | | |

Table Campylobacter in other food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Campylobacter | C. coli | C. jejuni |
|--|-----------------------|-------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--|---------|-----------|
| Meat from pig - minced meat - intended to be eaten cooked - at retail | DIS 888 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 25 | 0 | | |
| Milk, cows' - raw milk - intended for direct human consumption - at retail | DIS 837 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 8 | 0 | | |

| | C. lari | C. upsaliensis | Thermophilic Campylobacter spp., unspecified |
|---|---------|----------------|--|
| Meat from pig - fresh - at slaughterhouse | | | 62 |
| Meat from pig - minced meat - intended to be eaten raw - at retail | | | |
| Meat from bovine animals - fresh - at retail | | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail | | | |
| Milk, cows' - raw milk - intended for direct human consumption - at farm | | | |
| Live bivalve molluscs - at retail | | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm | | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail | | | |
| Meat from bovine animals - minced meat - intended to be eaten cooked - at retail | | | |

Table Campylobacter in other food

| | C. lari | C. upsaliensis | Thermophilic Campylobacter spp., unspecified |
|--|---------|----------------|--|
| Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail | | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail | | | |
| Meat from other animal species or not specified - fresh - at retail | | | |
| Meat from pig - minced meat - intended to be eaten cooked - at retail | | | |
| Milk, cows' - raw milk - intended for direct human consumption - at retail | | | |

Table Campylobacter in poultry meat

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Campylobacter | C. coli | C. jejuni |
|---|-----------------------|--------------------|-------------------|-------------------------|---------------|---------------|---------------|--------------|--|---------|-----------|
| Meat from broilers (Gallus gallus) - carcase - at slaughterhouse | PRI 003 | Objective sampling | Official sampling | food sample > neck skin | Domestic | Single | 1g | 440 | 44 | | |
| Meat from broilers (Gallus gallus) - fresh - at processing plant | TRA 200 | Objective sampling | Official sampling | food sample > meat | Domestic | Single | 1g | 714 | 16 | | |
| Meat from broilers (Gallus gallus) - fresh - at retail | DIS 819 DIS 821 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 383 | 44 | 11 | 23 |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant | TRA 202 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 47 | 0 | | |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail | DIS 826 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 40 | 0 | | |
| Meat from turkey - fresh - at retail | DIS 821 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 12 | 0 | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant | TRA 202 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 10 | 0 | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at retail | DIS 826 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 2 | 0 | | |
| Meat from poultry, unspecified - fresh - at retail | DIS 821 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 15 | 0 | | |
| Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - at processing plant | TRA 202 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 2 | 0 | | |
| Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - at retail | DIS 826 | Unspecified | Official sampling | food sample | Unknown | Batch | 1 g | 17 | 0 | | |

Table Campylobacter in poultry meat

| | C. lari | C. upsaliensis | Thermophilic Campylobacter spp., unspecified |
|---|---------|----------------|--|
| Meat from broilers (Gallus gallus) - carcase - at slaughterhouse | | | 44 |
| Meat from broilers (Gallus gallus) - fresh - at processing plant | | | 16 |
| Meat from broilers (Gallus gallus) - fresh - at retail | | | 15 |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant | | | |
| Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail | | | |
| Meat from turkey - fresh - at retail | | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at processing plant | | | |
| Meat from turkey - meat preparation - intended to be eaten cooked - at retail | | | |
| Meat from poultry, unspecified - fresh - at retail | | | |
| Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - at processing plant | | | |
| Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - at retail | | | |

Table Campylobacter in poultry meat

2.2.3 Campylobacter in animals

A. Thermophilic Campylobacter in Gallus gallus

Monitoring system

Sampling strategy

In 2012 no monitoring was realised for Campylobacter by analysis of caeca.

Frequency of the sampling

At slaughter

Sampling distributed evenly throughout the year

Type of specimen taken

At slaughter

caeca

Methods of sampling (description of sampling techniques)

At slaughter

10 caeca pairs are pooled to one sample. 6 samples are taken of each examined flock. The caeca are emptied at the laboratory. The content is examined for Campylobacter.

Case definition

At slaughter

A sample is positive if Campylobacter is detected.

Measures in case of the positive findings or single cases

Samples are taken for monitoring purposes only. No measures are taken in case of positive findings.

2.2.4 Antimicrobial resistance in Campylobacter isolates

A. Antimicrobial resistance in Campylobacter jejuni and coli in foodstuff derived from pigs

Sampling strategy used in monitoring

Procedures for the selection of isolates for antimicrobial testing

All strains isolated in the zoonosis monitoring program and originating from pork were sent to the Institute of Public Health for determination of antimicrobial resistance.

Laboratory methodology used for identification of the microbial isolates

Specification (coli/jejuni) with PCR (Debruyne et al, Res Microbiol, 2008)

Laboratory used for detection for resistance

Antimicrobials included in monitoring

The antimicrobials tested and the breakpoints used are listed in the following table.

Antimicrobial Breakpoints (g / ml)

| | Jejunicoli |
|-----------------|------------|
| Chloramphenicol | 1616 |
| Tetracycline | 22 |
| Nalidixic acid | 1632 |
| Ciprofloxacin | 11 |
| Erythromycin | 416 |
| Gentamicin | 12 |
| Streptomycin | 2 4 |

Minimum Inhibitory Concentrations were determined following the NCCLS guidelines.

Results of the investigation

In total, 54 Campylobacter isolates were analysed, of which 50 belonged to C. coli and 4 to C. jejuni. The number of isolates that were sensitive to all tested antibiotics was 5% which is an increase compared to last year (2%) . The resistance against streptomycin (80%) and tetracycline (76%) was high, and 46% of all isolates showed resistance to three or more antibiotics tested. Complete resistance was not observed.

B. Antimicrobial resistance in Campylobacter jejuni and coli in foodstuff derived from poultry

Sampling strategy used in monitoring

Procedures for the selection of isolates for antimicrobial testing

In 2012, 621 Campylobacter strains isolated in the zoonoses monitoring programme and originating from poultry, (carcasses of broilers, filets, entrails, meat preparation and carcasses of spent hens) and pork were sent for antimicrobial susceptibility testing. Of these, 376 Campylobacter strains were actually included for antimicrobial susceptibility. Since 2011, a threshold of samples has been established.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Minimum Inhibitory Concentrations (MIC) were determined by using broth microdilution method (Sensititre EUCAMP panel). The antimicrobials tested and the breakpoints (following the CLSI standards) used are listed in the table below.

Antimicrobial Breakpoints ($\mu\text{g} / \text{ml}$)

jejunicoli

Chloramphenicol 16/16

Tetracycline 2/2

Nalidixic acid 32/32

Ciprofloxacin 1/1

Erythromycin 4/16

Gentamicin 12

Streptomycin 24

Results of the investigation

344 Campylobacter strains were isolated in poultry meat and carcasses and tested for antimicrobial susceptibility (242 C. jejuni and 102 C. coli strains).

In total 31.7% of all campylobacter strains from poultry meat were sensitive to all tested antibiotics.

Tetracycline resistance was most dominantly present (56.6 %), followed closely by resistance to ciprofloxacin (52.9 %) and Nalidixic acid (51.4 %). Those values are similar to values found in 2011.

Overall antibiotic resistance was more prevalent in C. coli than in C. jejuni, with only 16% (17 out of 102) of C. coli strains sensitive to all antibiotics, similar to last year. The number of C. coli multiresistant strains, resistant to three or more antibiotics was 61.8 %. A high resistance was observed for tetracycline (71 %), ciprofloxacin (71 %) and nalidixic acid (69 %), very similar to values found previous year except for nalidixic acid which an increase of 18 % has been detected respect to 2011.

For C. jejuni, 33% of all strains were sensitive to all antibiotics tested, which is the same as the previous year. The resistance against the antibiotics tested remained stable, with high levels found for tetracycline (50%), ciprofloxacin (45%) and nalidixic acid (44%) as last year, however resistance to streptomycin, has decreased from 20% in 2011 to 3% in 2012.

C. Antimicrobial resistance in Campylobacter jejuni and coli in pigs

Sampling strategy used in monitoring

Frequency of the sampling

In 2012, 621 Campylobacter strains isolated in the zoonoses monitoring programme and originating from poultry, (carcasses of broilers, filets, entrails, meat preparation and carcasses of spent hens) and pork were sent for antimicrobial susceptibility testing. Of these, 376 Campylobacter strains were actually included for antimicrobial susceptibility. Since 2011, a threshold of samples has been established.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Minimum Inhibitory Concentrations (MIC) were determined by using broth microdilution method (Sensititre EUCAMP panel). The antimicrobials tested and the breakpoints (following the CLSI standards) used are listed in the table below.

Antimicrobial Breakpoints (g / ml)

jejunicoli

Chloramphenicol 16/16

Tetracycline 2/2

Nalidixic acid 32/32

Ciprofloxacin 1/1

Erythromycin 4/16

Gentamicin 1/2

Streptomycin 2/4

Results of the investigation

Antimicrobial resistance in Campylobacter from pork

In total, 32 Campylobacter isolates were analysed, which belonged to C. coli.

The number of isolates that were sensitive to all tested antibiotics was 5% which is an increase compared to last year (2%). The resistance against streptomycin (78 %) and tetracycline (87 %) was high, and 43% of all isolates showed resistance to three or more antibiotics tested, very similar to 2011. Complete resistance to all antibiotics tested was not observed.

Table Antimicrobial susceptibility testing of C. coli in Meat from poultry, unspecified - at retail - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

| C. coli | Meat from poultry, unspecified - at retail - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 29 | 1 | | | | | | | | | 5 | 16 | 7 | | | | 1 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 4 | 29 | 9 | | | | | | | | | | | 9 | 7 | 4 | | 9 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 29 | 0 | | | | | | | | | | | | 20 | 9 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 29 | 21 | | | | | | | 2 | 5 | 1 | | | | 21 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 32 | 29 | 21 | | | | | | | | | | | | | 3 | 5 | | | 21 | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 29 | 20 | | | | | | | | | 6 | 3 | | | | | 20 | | | | | | | | | |
| Macrolides - Erythromycin | 16 | 29 | 5 | | | | | | | | | | 16 | 4 | 4 | | | | 5 | | | | | | | | |

| C. coli | Meat from poultry, unspecified - at retail - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Quinolones - Nalidixic acid | | |

Table Antimicrobial susceptibility testing of *C. coli* in Meat from poultry, unspecified - at retail - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

| | | |
|---|---|---------|
| C. coli Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from poultry, unspecified - at retail - Surveillance | |
| | yes | |
| | 29 | |
| Antimicrobials: | lowest | highest |
| Tetracyclines - Tetracycline | | |
| Macrolides - Erythromycin | | |

Table Antimicrobial susceptibility testing of *C. jejuni* - *C. jejuni* subsp. *jejuni* in Meat from poultry, unspecified - meat products - raw and intended to be eaten raw - chilled - at retail - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

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

| <i>C. jejuni</i> subsp. <i>jejuni</i> Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from poultry, unspecified - meat products - raw and intended to be eaten raw - chilled - at retail - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----|----|--------|--------|-------|-------|-------|------|------|------|------|-----|----|----|----|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 61 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 1 | 61 | 0 | | | | | | | | 10 | 34 | 17 | | | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 2 | 61 | 4 | | | | | | | | | | | 51 | 6 | 2 | | 2 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 61 | 0 | | | | | | | | | | | | 45 | 14 | 1 | 1 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 61 | 36 | | | | | | | 12 | 7 | 3 | 1 | 2 | | 36 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 32 | 61 | 31 | | | | | | | | | | | | 5 | 15 | 5 | 1 | 4 | 31 | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 61 | 34 | | | | | | | | | 23 | 4 | | | 1 | 1 | 32 | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 61 | 0 | | | | | | | | | | 49 | 1 | 9 | 2 | | | | | | | | | | | |

| <i>C. jejuni</i> subsp. <i>jejuni</i> Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from poultry, unspecified - meat products - raw and intended to be eaten raw - chilled - at retail - Surveillance | |
|---|--|---------|
| | yes | |
| | 61 | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |

Table Antimicrobial susceptibility testing of C. jejuni - C. jejuni subsp. jejuni in Meat from poultry, unspecified - meat products - raw and intended to be eaten raw - chilled - at retail - Surveillance - Official sampling - food sample - meat - quantitative data [Dilution method]

| | | |
|---|--|---------|
| C. jejuni subsp. jejuni Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from poultry, unspecified - meat products - raw and intended to be eaten raw - chilled - at retail - Surveillance | |
| | yes | |
| | 61 | |
| Antimicrobials: | lowest | highest |
| Fluoroquinolones - Ciprofloxacin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Macrolides - Erythromycin | | |

Table Antimicrobial susceptibility testing of C. coli in Meat from broilers (Gallus gallus) - carcasse - spent hens - at slaughterhouse - Surveillance - Official sampling - food sample - carcasse swabs - quantitative data [Dilution method]

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

| C. coli | Meat from broilers (Gallus gallus) - carcasse - spent hens - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----|-----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | yes | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | 43 | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 43 | 2 | | | | | | | | | 8 | 31 | 2 | 0 | 1 | | 1 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 4 | 43 | 6 | | | | | | | | | | | 14 | 16 | 7 | | 6 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 43 | 0 | | | | | | | | | | | | 25 | 15 | 3 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 43 | 28 | | | | | | | 4 | 7 | 4 | | | | 28 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 32 | 43 | 28 | | | | | | | | | | | | 1 | 8 | 6 | | | 28 | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 43 | 27 | | | | | | | | | 8 | 6 | | 2 | | | 27 | | | | | | | | | |
| Macrolides - Erythromycin | 16 | 43 | 7 | | | | | | | | | | 19 | 12 | 3 | 2 | | | 7 | | | | | | | | |

| C. coli | Meat from broilers (Gallus gallus) - carcasse - spent hens - at slaughterhouse - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Fluoroquinolones - Ciprofloxacin | | |

Table Antimicrobial susceptibility testing of *C. coli* in Meat from broilers (*Gallus gallus*) - carcass - spent hens - at slaughterhouse - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

| | | |
|---|---|---------|
| C. coli Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from broilers (<i>Gallus gallus</i>) - carcass - spent hens - at slaughterhouse - Surveillance | |
| | yes | |
| | 43 | |
| Antimicrobials: | lowest | highest |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Macrolides - Erythromycin | | |

Table Antimicrobial susceptibility testing of *C. jejuni* - *C. jejuni* subsp. *jejuni* in Meat from broilers (*Gallus gallus*) - carcase - spent hens - at slaughterhouse - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

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

| C. jejuni subsp. jejuni | Meat from broilers (<i>Gallus gallus</i>) - carcase - spent hens - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|-----|-----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | yes | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | 106 | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 1 | 106 | 0 | | | | | | | | 7 | 67 | 31 | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 2 | 106 | 3 | | | | | | | | | | | 90 | 13 | 3 | | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 106 | 0 | | | | | | | | | | | | 76 | 25 | 5 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 106 | 30 | | | | | | | | 35 | 26 | 12 | 3 | | | 30 | | | | | | | | | | |
| Quinolones - Nalidixic acid | 32 | 106 | 24 | | | | | | | | | | | | 16 | 44 | 9 | 8 | 5 | 24 | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 106 | 40 | | | | | | | | | 58 | 6 | 2 | | 2 | | 38 | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 106 | 2 | | | | | | | | | | 86 | 6 | 8 | 4 | | | 2 | | | | | | | | |

| C. jejuni subsp. jejuni | Meat from broilers (<i>Gallus gallus</i>) - carcase - spent hens - at slaughterhouse - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Fluoroquinolones - Ciprofloxacin | | |

Table Antimicrobial susceptibility testing of C. jejuni - C. jejuni subsp. jejuni in Meat from broilers (Gallus gallus) - carcase - spent hens - at slaughterhouse - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

| | | |
|--|--|---------|
| C. jejuni subsp. jejuni | Meat from broilers (Gallus gallus) - carcase - spent hens - at slaughterhouse - Surveillance | |
| Isolates out of a monitoring program (yes/no) | yes | |
| Number of isolates available in the laboratory | 106 | |
| Antimicrobials: | lowest | highest |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Macrolides - Erythromycin | | |

Table Antimicrobial susceptibility testing of C. coli in Meat from broilers (Gallus gallus) - carcass - chilled - at slaughterhouse - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

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

| C. coli | Meat from broilers (Gallus gallus) - carcass - chilled - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) yes | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory 30 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 30 | 0 | | | | | | | | | 4 | 19 | 7 | | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 4 | 30 | 8 | | | | | | | | | | | 7 | 11 | 4 | 1 | 7 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 30 | 0 | | | | | | | | | | | | 19 | 10 | | 1 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 30 | 24 | | | | | | | 2 | 3 | 1 | | | | 24 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 32 | 30 | 21 | | | | | | | | | | | | | 3 | 2 | 1 | 3 | 21 | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 30 | 26 | | | | | | | | | 3 | 1 | | | | | 26 | | | | | | | | | |
| Macrolides - Erythromycin | 16 | 30 | 8 | | | | | | | | | | 11 | 8 | 2 | | 1 | | 8 | | | | | | | | |

| C. coli | Meat from broilers (Gallus gallus) - carcass - chilled - at slaughterhouse - Surveillance | |
|----------------------------------|---|---------|
| | Isolates out of a monitoring program (yes/no) yes | |
| | Number of isolates available in the laboratory 30 | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Fluoroquinolones - Ciprofloxacin | | |

Table Antimicrobial susceptibility testing of *C. coli* in Meat from broilers (*Gallus gallus*) - carcass - chilled - at slaughterhouse - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

| | | |
|---|--|---------|
| C. coli Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from broilers (<i>Gallus gallus</i>) - carcass - chilled - at slaughterhouse - Surveillance | |
| | yes | |
| | 30 | |
| Antimicrobials: | lowest | highest |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Macrolides - Erythromycin | | |

Table Antimicrobial susceptibility testing of *C. jejuni* - *C. jejuni* subsp. *jejuni* in Meat from broilers (*Gallus gallus*) - carcass - chilled - at slaughterhouse - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

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

| C. jejuni subsp. jejuni | Meat from broilers (<i>Gallus gallus</i>) - carcass - chilled - at slaughterhouse - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 1 | 75 | 0 | | | | | | | | 17 | 43 | 15 | | | | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 2 | 75 | 0 | | | | | | | | | | | 69 | 6 | | | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 75 | 0 | | | | | | | | | | | | 63 | 8 | 2 | 2 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 75 | 43 | | | | | | | 14 | 12 | 2 | 4 | | | 43 | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 32 | 75 | 33 | | | | | | | | | | | | 8 | 16 | 6 | 2 | 10 | 33 | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 75 | 48 | | | | | | | | | 26 | 1 | | | | | 48 | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 75 | 1 | | | | | | | | | | 65 | 6 | 2 | 1 | 1 | | | | | | | | | | |

| C. jejuni subsp. jejuni | Meat from broilers (<i>Gallus gallus</i>) - carcass - chilled - at slaughterhouse - Surveillance | |
|---|--|---------|
| Isolates out of a monitoring program (yes/no) | yes | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| | Aminoglycosides - Gentamicin | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Fluoroquinolones - Ciprofloxacin | | |

Table Antimicrobial susceptibility testing of C. jejuni - C. jejuni subsp. jejuni in Meat from broilers (Gallus gallus) - carcase - chilled - at slaughterhouse - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

| | | |
|---|---|---------|
| C. jejuni subsp. jejuni Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from broilers (Gallus gallus) - carcase - chilled - at slaughterhouse - Surveillance | |
| | yes | |
| | 75 | |
| Antimicrobials: | lowest | highest |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |
| Macrolides - Erythromycin | | |

Table Antimicrobial susceptibility testing of *C. coli* in Meat from pig - carcase - chilled - Surveillance - Official sampling - food sample - carcase swabs - quantitative data [Dilution method]

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

| <i>C. coli</i> | Meat from pig - carcase - chilled - Surveillance | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | yes | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | 32 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | | |
| Aminoglycosides - Gentamicin | 2 | 32 | 1 | | | | | | | | | | 19 | 11 | 1 | | | 1 | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 4 | 32 | 25 | | | | | | | | | | | | 3 | 4 | | 25 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 32 | 0 | | | | | | | | | | | | 17 | 13 | 2 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 32 | 13 | | | | | | | 4 | 9 | 4 | 1 | 1 | | 13 | | | | | | | | | | | | |
| Quinolones - Nalidixic acid | 32 | 32 | 13 | | | | | | | | | | | | | 6 | 11 | 1 | 1 | 13 | | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 32 | 28 | | | | | | | | | 1 | 2 | | 1 | | | 28 | | | | | | | | | | |
| Macrolides - Erythromycin | 16 | 32 | 5 | | | | | | | | | | 6 | 9 | 8 | 2 | 2 | | 5 | | | | | | | | | |

| <i>C. coli</i> | Meat from pig - carcase - chilled - Surveillance | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | yes | |
| Number of isolates available in the laboratory | | 32 |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | | |
| Aminoglycosides - Streptomycin | | |
| Amphenicols - Chloramphenicol | | |
| Fluoroquinolones - Ciprofloxacin | | |
| Quinolones - Nalidixic acid | | |
| Tetracyclines - Tetracycline | | |

Table Antimicrobial susceptibility testing of *C. coli* in Meat from pig - carcass - chilled - Surveillance - Official sampling - food sample - carcass swabs - quantitative data [Dilution method]

| | | |
|---|--|---------|
| C. coli Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Meat from pig - carcass - chilled - Surveillance | |
| | yes | |
| | 32 | |
| Antimicrobials: | lowest | highest |
| Macrolides - Erythromycin | | |

Table Cut-off values used for antimicrobial susceptibility testing of C. coli in Animals

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|---------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 2 | |
| | Streptomycin | | 4 | |
| Fluoroquinolones | Ciprofloxacin | | 1 | |
| Macrolides | Erythromycin | | 16 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values used for antimicrobial susceptibility testing of *C. coli* in Feed

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|---------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 2 | |
| | Streptomycin | | 4 | |
| Fluoroquinolones | Ciprofloxacin | | 1 | |
| Macrolides | Erythromycin | | 16 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values used for antimicrobial susceptibility testing of C. coli in Food

| Test Method Used |
|------------------|
| Broth dilution |

| Standard methods used for testing |
|-----------------------------------|
| NCCLS/CLSI |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | EFSA | 2 | |
| | Streptomycin | EFSA | 4 | |
| Fluoroquinolones | Ciprofloxacin | EFSA | 1 | |
| Macrolides | Erythromycin | EFSA | 16 | |
| Quinolones | Nalidixic acid | | 32 | |
| Tetracyclines | Tetracycline | EFSA | 2 | |

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Animals

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|---------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 1 | |
| | Streptomycin | | 2 | |
| Fluoroquinolones | Ciprofloxacin | | 1 | |
| Macrolides | Erythromycin | | 4 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Feed

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|---------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 1 | |
| | Streptomycin | | 2 | |
| Fluoroquinolones | Ciprofloxacin | | 1 | |
| Macrolides | Erythromycin | | 4 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Food

| Test Method Used |
|------------------|
| Broth dilution |

| Standard methods used for testing |
|-----------------------------------|
| NCCLS/CLSI |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | EFSA | 1 | |
| | Streptomycin | EFSA | 2 | |
| Fluoroquinolones | Ciprofloxacin | EFSA | 1 | |
| Macrolides | Erythromycin | EFSA | 4 | |
| Quinolones | Nalidixic acid | | 32 | |
| Tetracyclines | Tetracycline | EFSA | 2 | |

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

Listeria monocytogenes has become a major concern of the food industry and public health authorities. Ingestion of food contaminated with *Listeria monocytogenes* may cause either a serious invasive illness affecting people with altered or deficient immune responses, or a non-invasive febrile gastro-enteritis. Although the incidence of listeriosis is low, the high mortality rate, which often reaches as high as 30-40%, requires early diagnosis and appropriate antimicrobial therapy. Listeriosis is transmitted to humans via contact with animals, cross-infection of foetus or newborn babies and foodborne infection. *Listeria* is ubiquitous and widely distributed in the environment (soil, vegetables, meat, milk, fish). All food associated with *Listeria monocytogenes* outbreaks were consumed without further processing or after minimal heat treatment, and many of them had a suitable environment for growth.

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

Recent actions taken to control the zoonoses

General food hygiene rules are essential for the prevention of human listeriosis. As some persons are at high risk (pregnant women, immunocompromised people), they are advised not to eat certain categories of food with proven elevated risk of *Listeria monocytogenes* contamination, such as unpasteurized milk and butter, soft cheeses and ice cream made from unpasteurized milk, any soft cheese crust, smoked fish, pâté, cooked ham, salami, cooked meat in jelly, raw minced meat from beef, pork and poultry, steak tartar, raw fish and shellfish (oysters, mussels, shrimps), fish, meat and surimi salads, insufficiently rinsed raw vegetables, unpeeled fruit.

2.3.2 Listeriosis in humans

A. Listeriosis in humans

History of the disease and/or infection in the country

2.3.3 Listeria in foodstuffs

A. L. monocytogenes in food

Monitoring system

Frequency of the sampling

At retail

Samples are taken according to the national control program or in the frame of RASFF, complaints or suspicion.

Type of specimen taken

At retail

r

Definition of positive finding

At the production plant

A sample is considered to be positive after confirmation of *Listeria monocytogenes* on chromogenic medium.

At retail

A sample is considered to be positive after confirmation of *Listeria monocytogenes* on chromogenic medium.

Diagnostic/analytical methods used

At the production plant

AFNOR validated VIDAS LMO2 followed by a chromogenic medium (Rapid L. mono or ALOA)

At retail

AFNOR validated VIDAS LMO2 followed by a chromogenic medium (Rapid L. mono or ALOA)

Control program/mechanisms

The control program/strategies in place

Controls are realized by the FASFC in case of notification.

Measures in case of the positive findings

Measures to be taken in the case of a non-compliant result:

- Notification of the producer or importer
- Possibility of a counter analysis
- Destruction of the non compliant batch or single sample
- Further investigation: additional sampling, possible recall, RASFF, ...

Notification system in place

Notification is mandatory since 1/3/2004 (Ministerial Decree on mandatory notification in the food chain of 22/1/2004). For *Listeria monocytogenes*, the criterion of 100 cfu/g in ready-to-eat food putted on the market may not be exceeded. Laboratories have to inform the Federal Agency for the Safety of the Food Chain in case of a positive sample.

Table *Listeria monocytogenes* in milk and dairy products

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for <i>L. monocytogenes</i> | Units tested with detection method | <i>Listeria monocytogenes</i> presence in x g |
|---|---------------------------------|--------------------|-------------------|--------------------|---------------|---------------|---------------|--------------|--|------------------------------------|---|
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance | ¹⁾ PRI 013 - DIS 837 | Objective sampling | Official sampling | food sample > milk | Domestic | Batch | 1 ml | 48 | 1 | 0 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance | ²⁾ TRA 133 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 52 | 3 | 50 | 2 |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance | ³⁾ DIS 818 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 51 | 0 | 0 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance | ⁴⁾ TRA 134 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 75 | 0 | 75 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance | ⁵⁾ DIS 818 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 77 | 0 | 0 | 0 |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at processing plant - Surveillance | ⁶⁾ TRA 134 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 37 | 0 | 31 | 0 |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at retail - Surveillance | ⁷⁾ DIS 818 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 38 | 0 | 0 | 0 |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm - Surveillance | ⁸⁾ PRI 008 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 12 | 0 | 2 | 0 |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail - Surveillance | ⁹⁾ DIS 818 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 48 | 0 | 0 | 0 |

Table *Listeria monocytogenes* in milk and dairy products

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for <i>L. monocytogenes</i> | Units tested with detection method | <i>Listeria monocytogenes</i> presence in x g |
|---|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--|------------------------------------|---|
| ¹⁰⁾ Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm - Surveillance | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 30 | 0 | 14 | 0 |
| ¹¹⁾ Cheeses made from goats' milk - unspecified - made from pasteurised milk - at processing plant - Surveillance | TRA 134 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 56 | 0 | 18 | 0 |
| ¹²⁾ Cheeses made from goats' milk - unspecified - made from pasteurised milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 57 | 0 | 0 | 0 |
| ¹³⁾ Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | PRI 008 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 10 | 1 | 3 | 0 |
| ¹⁴⁾ Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 45 | 5 | 25 | 5 |
| ¹⁵⁾ Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | 0 | 0 |
| ¹⁶⁾ Cheeses made from sheep's milk - unspecified - made from pasteurised milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 114 | 0 | 0 | 0 |
| ¹⁷⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | PRI 008 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 10 | 1 | 2 | 1 |
| ¹⁸⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 8 | 0 | 8 | 0 |

Table *Listeria monocytogenes* in milk and dairy products

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for <i>L. monocytogenes</i> | Units tested with detection method | <i>Listeria monocytogenes</i> presence in x g |
|---|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--|------------------------------------|---|
| ¹⁹⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 80 | 0 | 0 | 0 |
| ²⁰⁾ Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm - Surveillance | DPA 009 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 90 | 3 | 29 | 3 |
| ²¹⁾ Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at farm - Surveillance | PRI 025 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 35 | 0 | 8 | 0 |
| ²²⁾ Dairy products (excluding cheeses) - ice-cream - at farm - Surveillance | PRI 010 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 115 | 0 | 0 | 0 |
| ²³⁾ Dairy products (excluding cheeses) - ice-cream - at retail - Surveillance | DIS 859 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 114 | 0 | 0 | 0 |
| ²⁴⁾ Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance | TRA 123 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | 0 | 0 |
| ²⁵⁾ Dairy products (excluding cheeses) - yoghurt - at farm - Surveillance | PRI 007 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 22 | 0 | 0 | 0 |
| ²⁶⁾ Dairy products (excluding cheeses) - yoghurt - at processing plant - Surveillance | TRA 142 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 40 | 0 | 0 | 0 |
| ²⁷⁾ Dairy products (excluding cheeses) - yoghurt - at retail - Surveillance | DIS 858 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 67 | 0 | 0 | 0 |

Table *Listeria monocytogenes* in milk and dairy products

| | Units tested with enumeration method | > detection limit but ≤ 100 cfu/g | L. monocytogenes > 100 cfu/g |
|---|--------------------------------------|-----------------------------------|------------------------------|
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance ¹⁾ | 48 | 1 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance ²⁾ | 6 | 1 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance ³⁾ | 51 | 0 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant - Surveillance ⁴⁾ | 0 | 0 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail - Surveillance ⁵⁾ | 77 | 0 | 0 |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at processing plant - Surveillance ⁶⁾ | 11 | 0 | 0 |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at retail - Surveillance ⁷⁾ | 38 | 0 | 0 |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm - Surveillance ⁸⁾ | 10 | 0 | 0 |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail - Surveillance ⁹⁾ | 48 | 0 | 0 |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm - Surveillance ¹⁰⁾ | 17 | 0 | 0 |

Table *Listeria monocytogenes* in milk and dairy products

| | Units tested with enumeration method | > detection limit but ≤ 100 cfu/g | L. monocytogenes > 100 cfu/g |
|---|--------------------------------------|-----------------------------------|------------------------------|
| ¹¹⁾ Cheeses made from goats' milk - unspecified - made from pasteurised milk - at processing plant - Surveillance | 38 | 0 | 0 |
| ¹²⁾ Cheeses made from goats' milk - unspecified - made from pasteurised milk - at retail - Surveillance | 57 | 0 | 0 |
| ¹³⁾ Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | 7 | 0 | 1 |
| ¹⁴⁾ Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | 21 | 0 | 0 |
| ¹⁵⁾ Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | 45 | 0 | 0 |
| ¹⁶⁾ Cheeses made from sheep's milk - unspecified - made from pasteurised milk - at retail - Surveillance | 114 | 0 | 0 |
| ¹⁷⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | 8 | 0 | 0 |
| ¹⁸⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | 0 | 0 | 0 |
| ¹⁹⁾ Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | 80 | 0 | 0 |

Table *Listeria monocytogenes* in milk and dairy products

| | Units tested with enumeration method | > detection limit but ≤ 100 cfu/g | L. monocytogenes > 100 cfu/g |
|--|--------------------------------------|-----------------------------------|------------------------------|
| Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm - Surveillance ²⁰⁾ | 65 | 0 | 0 |
| Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at farm - Surveillance ²¹⁾ | 28 | 0 | 0 |
| Dairy products (excluding cheeses) - ice-cream - at farm - Surveillance ²²⁾ | 115 | 0 | 0 |
| Dairy products (excluding cheeses) - ice-cream - at retail - Surveillance ²³⁾ | 114 | 0 | 0 |
| Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant - Surveillance ²⁴⁾ | 45 | 0 | 0 |
| Dairy products (excluding cheeses) - yoghurt - at farm - Surveillance ²⁵⁾ | 22 | 0 | 0 |
| Dairy products (excluding cheeses) - yoghurt - at processing plant - Surveillance ²⁶⁾ | 40 | 0 | 0 |
| Dairy products (excluding cheeses) - yoghurt - at retail - Surveillance ²⁷⁾ | 67 | 0 | 0 |

Comments:

- ¹⁾ count in 1 ml, sample of 200 ml
- ²⁾ sample > 300g, count in 1 g, detection in 25 g
- ³⁾ sample of 200g, count in 1 g
- ⁴⁾ sample > 300g, detection in 25g

Table Listeria monocytogenes in milk and dairy products

Comments:

- 5) sample of 200g, count in 1g
- 6) sample > 300g, detection in 25g, count in 1g
- 7) sample of 200g, count in 1g
- 8) sample of 200g, count in 1 g, detection in 25g
- 9) sample of 200g, count in 1g
- 10) sample of 200g, detection in 25g, count in 1g
- 11) sample > 300g, detection in 25g, count in 1g
- 12) sample of 200g, count in 1g
- 13) sample of 200g, detection in 25g, count in 1g
- 14) sample >300g, detection in 25 g, count in 1g
- 15) sample of 200g, count in 1g
- 16) sample of 200g, count in 1g
- 17) sample of 200g, detection in 25g, count in 1g
- 18) sample > 300g, detection in 25g
- 19) sample of 200g, count in 1g
- 20) sample of 200g, detection in 25g, count in 1g
- 21) sample of 200g, detection in 25g, count in 1g
- 22) sample of 100g, count in 1g
- 23) sample of 150g, count in 1g
- 24) sample > 500g, count in 1g
- 25) sample of 200g, count in 1g
- 26) sample > 200g, count in 1g

Table Listeria monocytogenes in milk and dairy products

Comments:

²⁷⁾ sample of 100g, count in 1g

Table *Listeria monocytogenes* in other foods

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for <i>L. monocytogenes</i> | Units tested with detection method | <i>Listeria monocytogenes</i> presence in x g |
|--|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--|------------------------------------|---|
| Meat from broilers (<i>Gallus gallus</i>) - meat products - cooked, ready-to-eat - at processing plant - Surveillance | TRA 416 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 170 | 1 | 74 | 1 |
| Fish - smoked - at processing plant - Surveillance | TRA 400 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 200 | 0 | 0 | 0 |
| Fish - smoked - at retail - Surveillance | DIS 847 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 200 | 0 | 0 | 0 |
| Infant formula - at retail - Surveillance | DIS 803 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 289 | 0 | 289 | 0 |
| Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - at retail - Surveillance | DIS 862 | Objective sampling | Official sampling | food sample | Unknown | Batch | 25 g | 146 | 0 | 146 | 0 |
| Fruits - pre-cut - ready-to-eat - at retail - Surveillance | DIS 813 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 114 | 0 | 0 | 0 |
| Fish - raw - at retail - Surveillance | DIS 873 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 293 | 1 | 0 | 0 |
| Fishery products, unspecified - ready-to-eat - at processing plant - Surveillance | TRA 402 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 157 | 1 | 65 | 1 |
| Fishery products, unspecified - ready-to-eat - at retail - Surveillance | DIS 808 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 148 | 0 | 0 | 0 |
| Fishery products, unspecified - smoked - at processing plant - Surveillance | TRA 400 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 21 | 2 | 16 | 2 |
| Fruits - whole - at retail - Surveillance (melon) | DIS 841 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 124 | 0 | 0 | 0 |
| Infant formula - dried - at processing plant - Surveillance | TRA 171 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 10 | 0 | 10 | 0 |

Table *Listeria monocytogenes* in other foods

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for <i>L. monocytogenes</i> | Units tested with detection method | <i>Listeria monocytogenes</i> presence in x g |
|---|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--|------------------------------------|---|
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | TRA 302 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 110 | 4 | 30 | 4 |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | TRA 300 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 113 | 0 | 96 | 0 |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | TRA 416 | Objective sampling | Official sampling | food sample | | Batch | 1 g | 161 | 0 | 70 | 0 |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at retail - Surveillance | DIS 801 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 524 | 2 | 0 | 0 |
| Meat from other animal species or not specified - minced meat - at retail - Surveillance | DIS 823 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 74 | 0 | 0 | 0 |
| Meat from other animal species or not specified - minced meat - at retail - Surveillance | DIS 815 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 583 | 1 | 0 | 0 |
| Meat from pig - meat products - fermented sausages - at processing plant - Surveillance | TRA 317 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 10 | 1 | 3 | 1 |
| Meat from pig - meat products - raw ham - at processing plant - Surveillance | TRA 317 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 116 | 2 | 83 | 1 |
| Meat from pig - meat products - raw ham - at retail - Surveillance | DIS 801 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 114 | 0 | 0 | 0 |
| Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at retail - Surveillance | DIS 807 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 533 | 0 | 0 | 0 |
| Ready-to-eat salads - at retail - Surveillance | DIS 807 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 272 | 2 | 0 | 0 |

Table *Listeria monocytogenes* in other foods

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for <i>L. monocytogenes</i> | Units tested with detection method | <i>Listeria monocytogenes</i> presence in x g |
|---|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--|------------------------------------|---|
| Sauce and dressings - mayonnaise - at retail - Surveillance | DIS 861 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 6 | 0 | 0 | 0 |

| | Units tested with enumeration method | > detection limit but ≤ 100 cfu/g | <i>L. monocytogenes</i> > 100 cfu/g |
|--|--------------------------------------|-----------------------------------|-------------------------------------|
| Meat from broilers (<i>Gallus gallus</i>) - meat products - cooked, ready-to-eat - at processing plant - Surveillance | 96 | 0 | 0 |
| Fish - smoked - at processing plant - Surveillance | 200 | 0 | 0 |
| Fish - smoked - at retail - Surveillance | 200 | 0 | 0 |
| Infant formula - at retail - Surveillance | 0 | 0 | 0 |
| Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - at retail - Surveillance | 0 | 0 | 0 |
| Fruits - pre-cut - ready-to-eat - at retail - Surveillance | 114 | 0 | 0 |
| Fish - raw - at retail - Surveillance | 293 | 1 | 0 |
| Fishery products, unspecified - ready-to-eat - at processing plant - Surveillance | 92 | 0 | 0 |
| Fishery products, unspecified - ready-to-eat - at retail - Surveillance | 148 | 0 | 0 |

Table *Listeria monocytogenes* in other foods

| | Units tested with enumeration method | > detection limit but ≤ 100 cfu/g | <i>L. monocytogenes</i> > 100 cfu/g |
|---|--------------------------------------|-----------------------------------|-------------------------------------|
| Fishery products, unspecified - smoked - at processing plant - Surveillance | 5 | | |
| Fruits - whole - at retail - Surveillance (melon) | 124 | | |
| Infant formula - dried - at processing plant - Surveillance | | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | 80 | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | 17 | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant - Surveillance | 91 | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at retail - Surveillance | 524 | 1 | 1 |
| Meat from other animal species or not specified - minced meat - at retail - Surveillance | 74 | | |
| Meat from other animal species or not specified - minced meat - at retail - Surveillance | 583 | 1 | |
| Meat from pig - meat products - fermented sausages - at processing plant - Surveillance | 7 | | |
| Meat from pig - meat products - raw ham - at processing plant - Surveillance | 33 | 1 | |

Table *Listeria monocytogenes* in other foods

| | Units tested with enumeration method | > detection limit but ≤ 100 cfu/g | L. monocytogenes > 100 cfu/g |
|---|--------------------------------------|-----------------------------------|------------------------------|
| Meat from pig - meat products - raw ham - at retail - Surveillance | 114 | | |
| Other processed food products and prepared dishes - unspecified - ready-to-eat foods - at retail - Surveillance | 533 | 0 | 0 |
| Ready-to-eat salads - at retail - Surveillance | 272 | 2 | 0 |
| Sauce and dressings - mayonnaise - at retail - Surveillance | 6 | | |

2.4 E. COLI INFECTIONS

2.4.1 General evaluation of the national situation

2.4.2 Escherichia coli, pathogenic in foodstuffs

A. Verotoxigenic E. coli (VTEC) in food

Monitoring system

Sampling strategy

A monitoring program was organized by the Federal Agency for the Safety of the Food Chain. More than 200 Belgian slaughterhouses, more than 100 meat cutting plants and more than 100 retail trades representative of the Belgian production, were selected for this study. The samples assayed were carcasses, cuts and minced meat from beef and other foodstuffs. Sampling was done by a specially trained staff of the Federal Agency for the Safety of the Food Chain.

Frequency of the sampling

Samples have been taken every week from the first to the 52nd week, except during the 30th week.

Type of specimen taken

Other: Meat, sprouted seeds, cheeses and other dairy products, pre-cut fruits and vegetables and vegetables.

Methods of sampling (description of sampling techniques)

Sampling of beef carcasses was done by means of swabs (4 areas from the same half carcass constituting 1600 cm² were putted in the same stomacher bag).

The samples were putted in a cool box and transported to a dispatching center of the Federal Agency for the Safety of the Food Chain and the laboratory take the samples at the dispatching center for analyses.

The other samples were about 200g of meat. The detection of enterohemorrhagic E. coli has been assessed in 1600 cm² for beef carcasses and in 25g for beef minced meat and beef cuts.

No pooling has been done.

Definition of positive finding

A sample is considered positive after isolation and genetic confirmation of the pathogenicity of the O157 E. coli strain in the sample. In case of isolation and genetic confirmation of the top 5 VTEC in dairy products, the sample is considered positive. In sprouted seeds, pre-cut fruits and vegetables and (non-pre-cut) vegetables a samples is also considered positive after isolation and genetic confirmation of E. coli O104:H4.

Diagnostic/analytical methods used

For detection of Escherichia coli O157, the Belgian official SP-VG-M001 method, according to the ISO 16654 (2001) was used :

- pre-enrichment in m-TSB + novobiocin at 42°C for 7 hours,
- enrichment in CT-Mac Conkey at 37°C for 16-18 hours;
- immunoassay O157 (VIDAS ECO, bioMérieux),
- selective immunomagnetic enrichment (Dynabeads, Dynal or VIDAS ICE, bioMérieux),
- isolation on sorbitol-Mac Conkey and incubation at 42°C for 18 h,
- isolation and confirmation (agglutination of latex particles, Oxoid),

Belgium - 2012 Report on trends and sources of zoonoses

- search for genes encoding for virulence factors in national reference laboratory.
- For the detection of other E.coli types, the ISO/PRF TS 13136 (2012) method is used.

Preventive measures in place

Controls are in place by the Federal Agency in case of notification.

Control program/mechanisms

The control program/strategies in place

Notification is mandatory since 1/3/2004 (Ministerial Decree on mandatory notification in the food chain of 22/1/2004). For enterohemorrhagic E. coli, absence in 25g in ready-to-eat food putted on the market is mandatory. Laboratories have to inform the Federal Agency in case of positive sample.

Measures in case of the positive findings or single cases

Meat from positive carcasses is traced back, destroyed or transformed into cooked meat products.

Measures to be taken in the case of a non-compliant result:

- Notification of the producer or importer
- Possibility of a counter analysis
- Destruction of the non compliant batch or single sample
- Further investigation: additional sampling, possible recall, RASFF, ...

Table VT E. coli in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Analytical Method | Sampling unit | Sample weight | Units tested | Total units positive for Verotoxigenic E. coli (VTEC) | Verotoxigenic E. coli (VTEC) - VTEC O157 |
|---|-----------------------|--------------------|-------------------|-----------------------------|---------------|-------------------|---------------|---------------|--------------|---|--|
| Meat from bovine animals - carcass - at slaughterhouse - Surveillance | PRI 001 | Objective sampling | Official sampling | food sample > carcass swabs | Domestic | ISO/PRF TS 13136 | Single | 1600 cm2 | 453 | 4 | 1 |
| Meat from bovine animals - fresh - at processing plant - Surveillance | TRA 305 | Objective sampling | Official sampling | food sample > meat | Domestic | ISO 16654:2001 | Batch | 25g | 374 | 2 | 2 |
| Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance | TRA 304 | Objective sampling | Official sampling | food sample > meat | Domestic | ISO 16654:2001 | Batch | 25g | 297 | 0 | 0 |
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance | DPA 013 | Objective sampling | Official sampling | food sample > milk | Domestic | ISO 16654:2001 | Batch | 25 ml | 40 | 0 | 0 |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm - Surveillance | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 12 | 0 | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 48 | 0 | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm - Surveillance | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 30 | 0 | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 50 | 1 | 1 |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 51 | 0 | |

Table VT E. coli in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Analytical Method | Sampling unit | Sample weight | Units tested | Total units positive for Verotoxigenic E. coli (VTEC) | Verotoxigenic E. coli (VTEC) - VTEC O157 |
|--|-----------------------|--------------------|-------------------|-------------|---------------|-------------------|---------------|---------------|--------------|---|--|
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 8 | 0 | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 45 | 0 | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 45 | 0 | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 10 | 1 | 1 |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 8 | 0 | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | ISO 16654:2001 | Batch | 25 g | 80 | 0 | |
| Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm - Surveillance | PRI 009 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 89 | 0 | |
| Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at farm - Surveillance | PRI 025 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 35 | 0 | |
| Fruits and vegetables - pre-cut - at retail - Surveillance | DIS 813 | Objective sampling | Official sampling | food sample | Domestic | ISO 16654:2001 | Batch | 25 g | 114 | 0 | |
| Meat from bovine animals - meat preparation - intended to be eaten raw - at retail - Surveillance | DIS 815 | Objective sampling | Official sampling | food sample | Unknown | ISO 16654:2001 | Batch | 25 g | 582 | 1 | 1 |

Table VT E. coli in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Analytical Method | Sampling unit | Sample weight | Units tested | Total units positive for Verotoxigenic E. coli (VTEC) | Verotoxigenic E. coli (VTEC) - VTEC O157 |
|---|-----------------------|--------------------|-------------------|-------------|---------------|-------------------|---------------|---------------|--------------|---|--|
| Milk, cows' - raw milk - intended for direct human consumption - at retail - Surveillance | DIS 837 | Objective sampling | Official sampling | food sample | Unknown | ISO 16654:2001 | Batch | 25 ml | 8 | 0 | |
| Spices and herbs - at retail - Surveillance | DIS 841 | Unspecified | Official sampling | food sample | Unknown | ISO 16654:2001 | Batch | 25 g | 150 | 0 | |
| Vegetables - non-pre-cut - at retail - Surveillance | DIS 841 | Unspecified | Official sampling | food sample | Unknown | ISO 16654:2001 | Batch | 25 g | 560 | 0 | |

| | Verotoxigenic E. coli (VTEC) - VTEC non-O157 | Verotoxigenic E. coli (VTEC) - VTEC, unspecified |
|--|--|--|
| Meat from bovine animals - carcase - at slaughterhouse - Surveillance | 3 | |
| Meat from bovine animals - fresh - at processing plant - Surveillance | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at processing plant - Surveillance | | |
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Surveillance | 0 | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm - Surveillance | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail - Surveillance | | |

Table VT E. coli in food

| | Verotoxigenic E. coli (VTEC) - VTEC non- O157 | Verotoxigenic E. coli (VTEC) - VTEC, unspecified |
|---|---|--|
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm - Surveillance | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail - Surveillance | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm - Surveillance | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail - Surveillance | | |

Table VT E. coli in food

| | Verotoxigenic E. coli (VTEC) - VTEC non- O157 | Verotoxigenic E. coli (VTEC) - VTEC, unspecified |
|---|---|--|
| Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm - Surveillance | | |
| Dairy products (excluding cheeses) - cream - made from raw or low heat-treated milk - at farm - Surveillance | | |
| Fruits and vegetables - pre-cut - at retail - Surveillance | | |
| Meat from bovine animals - meat preparation - intended to be eaten raw - at retail - Surveillance | 1 | |
| Milk, cows ¹ - raw milk - intended for direct human consumption - at retail - Surveillance | | |
| Spices and herbs - at retail - Surveillance | | |
| Vegetables - non-pre-cut - at retail - Surveillance | | |

Footnote:

For the VTEC O157 analytical method ISO 16654:2001 is used, for the VTEC non-O157, analytical method ISO/PRF TS 13136 (2012) is used.

2.4.3 Escherichia coli, pathogenic in animals

A. Verotoxigenic Escherichia coli in cattle (bovine animals)

Monitoring system

Sampling strategy

There was no sampling strategy for VTEC in cattle in 2012. Diagnostic veterinary laboratories send E. coli strains to the NRL E. coli, AH for diagnostic reasons (antimicrobial susceptibility testing, pathotyping) and on a voluntary basis.

Results of the investigation

A total of 285 E. coli from cattle were PCR typed for the presence of virulence genes in 2012. Eight isolates were identified as VTEC: 6 stx1 eae, one stx2 eae and one stx1 (negative for eae). No serotype data are available.

2.5 TUBERCULOSIS, MYCOBACTERIAL DISEASES

2.5.1 General evaluation of the national situation

A. Tuberculosis general evaluation

History of the disease and/or infection in the country

Zoonotic tuberculosis (*Mycobacterium bovis*).

Tuberculosis in humans caused by *M. bovis* is clinically indistinguishable from tuberculosis caused by *M. tuberculosis*.

In the past, the most important way of transmission of *M. bovis* for humans was the consumption of raw milk or raw milk products from infected cattle. Industrial heating production methods or pasteurization of raw milk did stop this way of transmission to humans.

Nowadays tuberculosis in humans caused by *M. bovis* is rare. In regions where *M. bovis* infections in cattle are largely eliminated, only few residual cases occur among elderly persons as a result of the reactivation of dormant *M. bovis* within old lesions. Also among migrants from high-prevalence countries, infections with *M. bovis* are diagnosed.

Agricultural workers may acquire infection by *M. bovis* by inhaling cough aerosols from infected cattle and may subsequently develop typical pulmonary or genito-urinary tuberculosis. Cervical lymphadenopathy, intestinal lesions, chronic skin tuberculosis (lupus vulgaris) and other non-pulmonary forms are also particularly common as clinical symptoms.

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

Recent actions taken to control the zoonoses

The surveillance program of tuberculosis is based on Directive 64/432/EEC, which is implemented and adapted in National legislation since 1963 and last modified by the Royal Decree of 17 October 2002.

The control implies skin testing of animals at the occasion of trade and intensive testing of infected and contact farms in consequence of a confirmation of a bovine TB suspicious case (tracing-on and tracing-back of all contact animals).

Systematic ante- and post mortem examination at the slaughterhouse are performed.

The Federal Agency for the Safety of the Food chain is informed about any doubtful or positive result of the skin test of bovines and may decide to re-examine (additional tests e.g. comparative tuberculin test, interferon-gamma test) the animals or to kill them for additional analysis (test & slaughter strategy). In case a "TB suspicious" lesion is detected, a tissue sample is sent to the National Reference Laboratory for analysis. Consequently, if *Mycobacterium bovis* suspicion is confirmed by analysis, all animals in the herd of origin are skin tested and a complete epidemiological investigation is realised. The total herd is considered as the 'epidemiological unit'.

Isolation of *M. bovis* and biochemical testing is exclusively performed in the National Reference Laboratory where also IFN-gamma, PCR and molecular typing by means of RFLP, spoligotyping or more recently MIRU-VNTR are done to support the epidemiological investigations and to eventually prove the link between different cases.

Suggestions to the European Union for the actions to be taken

In case a holding is infected and if by epidemiological investigation and tracing-back, animals were found to be exported to another country, the Chief Veterinary Officer of the country of destination has to be

informed about the outbreak in the country of origin. This alert can help to rapidly detect an infection in the concerned holding of destination abroad.

Monitoring of the type of strains circulating in each country could contribute to the understanding of the temporal-spatial spread of some specific strains between different countries and could possibly bear some epidemiological links between different outbreaks.

2.5.2 Tuberculosis, mycobacterial diseases in humans

A. Tuberculosis due to Mycobacterium bovis in humans

Results of the investigation

2.5.3 Mycobacterium in animals

A. Mycobacterium bovis in bovine animals

Status as officially free of bovine tuberculosis during the reporting year

The entire country free

Belgium is officially free of bovine tuberculosis since the 25th of June 2003 (Commission Decision 2003/467/EC)

Free regions

All regions are officially free of bovine tuberculosis for the reporting year.

Monitoring system

Sampling strategy

Surveillance system.

The control of tuberculosis is based on Council Directive 64/432/EEC, which is implemented and adapted in National legislation since 1963 and was last modified by the Royal Decree of 17 October 2002.

The surveillance program implies:

- skin testing of animals at purchase by the veterinarian responsible for the epidemiological sanitary situation of the holding (contract between farmer and veterinarian);
- skin testing in case of a suspected/infected bovine of all animals of the holding
- skin testing of all 'contact' animals and herds (tracing-on and tracing-back);
- systematic ante- and post-mortem examination at the slaughterhouses, transmission to the National Reference Laboratory of all "TB suspicious" lesions for further analysis.

Isolation of *M. bovis* and typing is performed at the National Reference Laboratory CODA-CERVA. Also IFN-gamma, PCR and molecular typing by means of RFLP, spoligotyping and more recently MIRU-VNTR are realised at the NRL.

Frequency of the sampling

Frequency of testing depends on:

- the introduction of new animals into a herd (mandatory examination at purchase)
- the results of tuberculin testing
- the detection of suspected bovines
- the detection of infected bovines
- the epidemiological investigation related to suspected or infected animals or herds (tracing-on and tracing-back)
- the follow-up testing of infected and/or eradicated herds during 5 years after partial or total stamping-out.

Type of specimen taken

Organs/tissues: lesions, lymph nodes, lungs

Blood

Methods of sampling (description of sampling techniques)

Tuberculin skin testing: single (bovine tuberculin) or comparative (bovine/avian tuberculin) testing.

Blood sampling: interferon-gamma tests

Laboratory examination of all suspicious lesions by culture: isolation and identification

Organs: lymph nodes, lungs, ...

Case definition

- A 'bovine' is defined as infected with bovine tuberculosis if the animal is positive by skin testing or if *Mycobacterium bovis* is isolated by culture or confirmed by laboratory analysis (PCR).
- A 'holding' is defined as infected if *Mycobacterium bovis* was isolated from an animal of the holding.

Diagnostic/analytical methods used

- Simple skin test with bovine tuberculin
- Comparative skin test with bovine and avian tuberculin
- Ziehl-Neelsen coloration
- Culture for isolation
- Interferon-gamma
- PCR on lesions / organs
- PCR on culture
- RFLP typing
- Spoligotyping
- MIRU-VNTR

Vaccination policy

Vaccination is prohibited by Royal Decree of 17 October 2002.

Control program/mechanisms

The control program/strategies in place

National surveillance program by the Competent Authority (FASFC) on mandatory legal base.

Recent actions taken to control the zoonoses

Draw special attention and focus on the post-mortem examination of slaughtered animals;

Transmission for further analysis of any lesion that could be 'suspected' of tuberculosis to the National Reference Laboratory;

Culture of *M. bovis*, biochemical testing, PCR are performed on these 'suspicious' lesions;

Molecular typing by means of RFLP, Spogilotyping and more recently MIRU-VNTR are done systematically on all isolates to support the epidemiological investigations and to eventually prove the link between different cases or outbreaks.

Suggestions to the European Union for the actions to be taken

In case of export of bovines, inform the Chief Veterinary Officer of the Member state of destination if tuberculosis has been detected in a holding of the Member State of origin after the date of export. This information can result in an early detection or can avoid a possible further contamination in the Member State of destination.

Measures in case of the positive findings or single cases

If *M. bovis* is suspected, all animals in the herd of origin are skin tested, the herd is considered as the epidemiological unit. A complete epidemiological investigation is performed. By tracing-back and tracing-on all animals of 'contact' holdings are examined by skin testing. If any doubtful or positive result of the skin test is detected, the FASFC may decide to re-examine the animals (additional tests e.g. comparative skin testing with avian and bovine tuberculin and/or Interferon-gamma testing) or to kill the reactors (test slaughter) for additional analysis. In case a suspicious lesion is detected at post-mortem examination, a sample is sent to the National reference laboratory for analysis. Consequently, if *Mycobacterium bovis* is isolated, all skin test positive animals during successive testing are mandatory slaughtered. If many

bovines are reacting positive to skin testing, the FASFC can decide that all animals of the holding must be mandatory slaughtered. In most breakdowns a sanitation plan is established taking into account the epidemiological situation. After stamping-out, new restocked animals are tested during 5 consecutive years by annual skin testing to prove the TB free status of the holding.

Notification system in place

Animal Health Law of 24 March 1987 Chapter III and Royal Decree of 25 April 1988 (list of all notifiable animal diseases).

Results of the investigation

In 2001, a total of 23 infected holdings were notified. In total 792 animals reacted after tuberculinisation. In 2002, a total of 13 infected holdings were notified. A total of 799 animals reacted after tuberculinisation. Stamping-out was performed in 6 herds.

In 2003, a total of 7 infected holdings were notified. Stamping out was done in 5 herds. A total of 409 animals reacted after tuberculation. This number corresponds to the intensive testing of infected and contact farms. In total 3.799 herds and 337.260 animals were included in epidemiological investigations. The Federal Agency for the Safety of the Food Chain, the Competent Authority, instructed the slaughter of 1014 animals.

In 2004, a total of 8 infected holdings were detected. In total 229 bovines were slaughtered in consequence of the stamping-out of 3 infected herds.

In 2005, a total of 5 infected holdings were detected. All these herds were eradicated by stamping-out in execution of a TB sanitation plan. In total 752 animals were slaughtered. The carcasses of only 2 animals did have to be destroyed due to general dispersed TB lesions.

In 2006, a total of 8 infected holdings were detected. Seven of these were eradicated by stamping out. In total 1102 animals were slaughtered. A follow-up of the other infected holding is performed after test-slaughter of a few positive reactors, since then all results of tuberculin tests on all the animals of the herd at regular intervals are negative.

In 2007, a total of 5 infected holdings were detected. Three of these were eradicated by stamping-out. In total 487 animals were slaughtered. In the other two infected holdings, partial slaughter and intense follow-up by tuberculin testing was performed.

In 2008, a total of 12 infected holdings were detected. In total 812 animals were slaughtered. Finally 66 animals were detected positive in bacteriological examination.

In 2009, 2 infected holdings were detected. One holding was eradicated by stamping-out. On the other holding, partial slaughter and intense follow-up by tuberculin testing was performed.

In 2010 no infected holding was detected.

In 2011, 1 infected holding was discovered. All animals were slaughtered.

In December 2012, 1 infected holding was detected. All animals of the holding were slaughtered. In consequence 148 'contact' herds were followed-up by tuberculin testing in 2012 and 2013.

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

Number of infected herds since 2000

2000 : 24

2001 : 23

2002 : 13

2003 : 7

2004 : 8

2005 : 5

2006 : 8

2007 : 5

2008 : 12

2009 : 2

2010 : 0

Belgium - 2012 Report on trends and sources of zoonoses

2011: 1

2012: 1

Additional information

B. Mycobacterium bovis in farmed deer

Monitoring system

Sampling strategy

Sampling in case of suspicious TB lesions during post-mortem examinations of "wild" and "farmed" deer at slaughterhouse/ at game handling establishment.

Frequency of the sampling

Depends on the number of hunted/slaughtered animals and the detection of suspicious lesions at post-mortem examination.

Type of specimen taken

Suspicious lesions of lungs, lymph nodes, ... at slaughterhouse or game handling establishment.

Methods of sampling (description of sampling techniques)

TB suspicious tissues: lymph nodes, lungs, ...

Case definition

An animal is positive if *Mycobacterium bovis* is isolated by culture or confirmed by laboratory analysis.

Diagnostic/analytical methods used

- Ziehl-Neelsen coloration
- Culture for isolation
- Interferon-gamma
- PCR on lesions / organs
- PCR on culture

Control program/mechanisms

The control program/strategies in place

Monitoring is done by:

- systematic post-mortem examination at the slaughterhouses/game handling establishment
- post-mortem examination at autopsy of hunted or killed "wild" deer by accident in the University Center of Liège, Veterinary Medicine Faculty.

In case of suspected TB lesions, tissue samples are sent to the National Reference Laboratory for additional analysis to confirm the suspicion.

Recent actions taken to control the zoonoses

Surveillance program in wildlife.

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

No *Mycobacterium bovis* was detected in "wild/hunted" or "farmed" deer.

Table Tuberculosis in other animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Units tested | Total units positive for Mycobacterium | M. bovis | M. tuberculosis | Mycobacterium spp., unspecified |
|------|-----------------------|-------------------|-------------------|--|---------------|---------------|--------------|--|----------|-----------------|---------------------------------|
| Deer | coda-cerva | Suspect sampling | Official sampling | animal sample > organ/tissue | Domestic | Animal | 37 | 27 | | | |
| | | | | M. avium complex - M. avium subsp. avium | | | | | | | |
| Deer | | | | 27 | | | | | | | |

Table Tuberculosis in farmed deer

If present, the row "Total -1" refers to analogous data of the previous year.

| Region | Total number of existing farmed deer | | Free herds | | Infected herds | | Routine tuberculin testing | | Number of tuberculin tests carried out before the introduction into the herds | Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological examinations | Number of animals detected positive in bacteriological examination |
|-----------------------|--------------------------------------|---------|-----------------|-----|-----------------|---|---|--------------------------|---|--|--|
| | Herds | Animals | Number of herds | % | Number of herds | % | Interval between routine tuberculin tests | Number of animals tested | | | |
| Belgique-België | 2605 | 9591 | 2605 | 100 | 0 | 0 | no routine test | 0 | 0 | 37 | 0 |
| Total : ¹⁾ | 2605 | 9591 | 2605 | 100 | 0 | 0 | N.A. | 0 | 0 | 37 | 0 |

Comments:

¹⁾ N.A.

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

If present, the row "Total -1" refers to analogous data of the previous year.

| Region | Total number of existing bovine | | Officially free herds | | Infected herds | | Routine tuberculin testing | | Number of tuberculin tests carried out before the introduction into the herds (Annex A(I)(2)(c) third indent (1) of Directive 64/432/EEC) | Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological | Number of animals detected positive in bacteriological examination |
|-----------------------|---------------------------------|---------|-----------------------|-----|-----------------|---|---|--------------------------|---|---|--|
| | Herds | Animals | Number of herds | % | Number of herds | % | Interval between routine tuberculin tests | Number of animals tested | | | |
| Belgique-België | 32475 | 2603148 | 32474 | 100 | 1 | 0 | others, please specify | 272160 | 375000 | 71 | 9 |
| Total : ¹⁾ | 32475 | 2603148 | 32474 | 100 | 1 | 0 | N.A. | 272160 | 375000 | 71 | 9 |

Comments:

¹⁾ N.A.

Footnote:

Number of tuberculin tests carried out: Tuberculin tests are mandatory carried out after introduction of bovines into the new herd during the quarantine period obligatory after purchase. The total number of tuberculin tests after introduction is 375000.

2.6 BRUCELLOSIS

2.6.1 General evaluation of the national situation

2.6.2 Brucella in foodstuffs

Table Brucella in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Units tested | Total units positive for Brucella | B. abortus | B. melitensis | B. suis |
|--|----------------------------|--------------------|-------------------|----------------------|---------------|---------------|--------------|-----------------------------------|------------|---------------|---------|
| Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - Surveillance | FASFC | Census | Industry sampling | animal sample > milk | Domestic | Batch | 27603 | 1 | | | |
| | Brucella spp., unspecified | B. suis - biovar 2 | | | | | | | | | |
| Milk, cows' - raw milk for manufacture - intended for manufacture of raw or low heat-treated products - at processing plant - Surveillance | | 1 | | | | | | | | | |

Footnote:

In consequence of the Brucellosis breakdowns in March-May 2012, all dairy herds were tested 3 times by an ELISA of tankmilk. During the first round of tankmilk testing, one herd was detected as infected by Brucella suis biovar 2 after non conform result of tankmilk, serological follow-up testing and test&slaughter strategy. All other results were negative.

2.6.3 Brucella in animals

A. Brucella abortus in bovine animals

Status as officially free of bovine brucellosis during the reporting year

The entire country free

Belgium is officially free from bovine brucellosis since the 25th of June 2003 (Commission Decision 2003/467/EC)

Free regions

Belgium remained officially free of bovine brucellosis during this reporting year.

Additional information

End 2010 a brucellosis breakdown herd was detected after analyzing an abortion. The infected herd was totally depopulated. Extensive epidemiological investigations and important serological follow-up of contact herds in 2010 and 2011 could not give any indication on the origin of the infection neither could detect any additional other infected herd.

In March 2012, again a breakdown of brucellosis was detected after analysis of an abortion. No epidemiological link could be found with the breakdown of 2010. Tracing-back and an epidemiological inquiry lead to the detection of 4 other secondary breakdowns linked to the primary case. All these 5 brucellosis breakdown herds were infected with an identical Brucella abortus biovar 3. Another infected herd of brucellosis was detected by analysis of tankmilk and an infection with Brucella suis biovar 2 was confirmed. This breakdown could be considered as an isolated case. This biotype is endemic in Belgian wildboar population. Also bovines are susceptible to this biovar.

Finally there was a stamping-out of all the animals of the infected herds.

Monitoring system

Sampling strategy

Since Belgium is officially free of bovine brucellosis, the eradication program has been changed in a surveillance program. Beef cattle older than 2 years were monitored once every three years by means of serological tests. The herds for serological sampling and examination were selected by their geographical location. Dairy cattle were checked at least 4 times a year via tank milk (milk ring test).

Furthermore, all animals were tested at trade (purchase) on the herd of arrival.

Each abortion or premature birth in animals at risk must be subject to compulsory notification to the Federal Agency for the Safety of the Food Chain, and be tested for brucellosis. Aborting females should be kept in isolation until the results of the analysis and the investigation exclude a Brucella infection.

Pooled tank milk was examined by means of a milk ring test.

For animals older than 2 years of dairy herds, serology (i.e. micro-agglutination as screening test; in case of a positive result, an indirect ELISA test is performed) is used if no sufficient milk ring tests were performed (at least 4 tests a year).

Bacteriological examination is done when serological and/or epidemiological suspicion is present.

An animal is legally suspected of brucellosis in case of a positive ELISA. If, according to the epidemiology and the results of the blood test, an animal or herd is found to be at risk, a bacteriological investigation always takes place. Hence, a brucellosis animal is defined as an animal in which Brucella abortus has been isolated, and a cattle holding is considered as an outbreak herd if one of the animals is positive for brucellosis by bacteriological examination.

In 2009, a study was realized to evaluate the current national surveillance program of bovine brucellosis. If

a Member State has maintained the officially free status of brucellosis for at least 5 consecutive years, the existing surveillance program can be re-evaluated and some modifications on the sampling design are allowed on condition of further proof of freedom of disease (Council Directive 64/432/EEC). The scientific veterinary experts used risk-based models to evaluate different scenarios within the current surveillance program and the study was also based on a statistical confidence level approach. This methodology has underlined a few important features of the current brucellosis surveillance program. The study showed that in order to obtain a 99% confidence level to prove freedom of disease consistently an important decrease in total number of tested animals can be proposed (500.000 to 30.000 tests a year). The study also clearly indicated that the best approach is to test bovines imported from officially free or non-officially free Member States of *Brucella* spp., to test animals at purchase in consequence of national trade as well as to analyze aborting animals in order to early detect infection. Regarding the passive surveillance (abortions), the study indicated there is a need to increase the number of analyzed abortions. Also the mandatory analysis for brucellosis at purchase of new animals changed into a voluntary approach. A new surveillance program has been applied from the end of 2009 on.

In 2012 surveillance was focused on following risk categories:

- import of non officially free MSs or Third Countries at the moment of trade and follow-up testing during 3 consecutive years during the winterscreening (targeted selection)
- at random selection of 450 bovine herds for serological investigation of 40 animals per herd divided in 4 different age categories: 10 animals of 6-12 months of age, 10 animals of 12-24 months of age and 20 animals older then 24 months.
- number of analysis of bovines of national trade at purchase
- at random selection of 750 bovine herds of all herds that did not declare any abortion during the passed year. On these herds a maximum of 20 animals are randomly selected for serological analysis of brucellosis.
- due to the brucellosis outbreaks during the first months of 2012, from June to December 2012 a serological examination became again mandatory at purchase of animals older then 18 months of age and a mandatory analysis before participation to an animal fair, show or market. Also a general screening of dairy herds by an ELISA of tankmilk was realised. In 2012, 3 rounds of tank milk analysis of all dairy herds were organized. In total 27.603 tankmilk samples were analyzed by ELISA. These analyses finally detected the breakdown herd due to *Brucella suis* biovar 2.

Frequency of the sampling

- import of non officially free MSs or Third Countries at the moment of trade: all imported animals over 12 months of age
- import of non officially free MSs or Third Countries follow-up testing during winterscreening for 3 consecutive years of all imported animals over 24 months of age
- at random selection of 450 bovine herds: at random selection of at maximum 40 female animals
- bovines of national trade at purchase: at random selection, limited number of analysis
- at random selection of 750 bovine herds where no abortion was declared/analyzed during the last year, at random selection of 20 female animals
- abortion protocol: examination of abortions for brucellosis and some other diseases which can induce an abortion in bovine animals (IBR, BVD, Neoplasmose, ...).

Type of specimen taken

- Blood
- Tankmilk

Methods of sampling (description of sampling techniques)

- Blood sampling

Case definition

An animal is defined as infected if *Brucella* spp. has been isolated and identified by culture.

A herd is defined as infected if one of its animals is positive by bacteriological examination for Brucellosis.

Diagnostic/analytical methods used

- Micro agglutination test
- ELISA blood or tank milk
- Complement Fixation Test
- Rose Bengale Test
- PCR
- Stamp/Ziehl Neelsen coloration
- Culture

Vaccination policy

Vaccination is prohibited in Belgium since 1992.

Control program/mechanisms

The control program/strategies in place

National mandatory surveillance program organized by the FASFC.

Measures in case of the positive findings or single cases

In case of a positive result in the micro-agglutination test the same blood sample is tested with an ELISA. If this indirect ELISA is positive, this result has to be confirmed by a blocking ELISA at the NRL. If this confirmatory test is positive, the animal is considered as infected and is compulsory slaughtered (test slaughter) for additional analysis to detect a possible *Brucella* infection.

Notification system in place

Animal Health Law of 24 March 1987 Chapter III, Royal Degree of 25 April 1988 (list of all notifiable diseases)

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

An intensified bovine brucellosis control program started in Belgium in 1988. In case of active brucellosis, i.e. excretion of *Brucella*, the plan consisted in the culling of all animals of the infected herd (total depopulation). Culled bovines were compensated for based on the replacement value of the animals. In March 2000, the last case of bovine brucellosis was identified before obtaining the officially brucellosis free status in 2003.

In case of positive serological reactors the Federal Agency for the Safety of the Food Chain instruct follow-up testing or 'test slaughter' for additional analyses. These analyses could not confirm brucellosis. To reduce the number of FPSR (False positive serological reactors) to be slaughtered, the micro-agglutination test has been used as for routine testing whereas the indirect Elisa is accepted as a confirmatory test. This approach avoids the undeserved test slaughter of false positive reacting animals. In March 2012 a breakdown of bovine brucellosis was detected at a herd in the province of Namur. Bovine brucellosis was detected by analysis of an abortion and serology. Serological examination of the cow and bacteriological examination of the fetus indicated a *Brucella* infection that was confirmed and typed as *Brucella abortus* biovar 3 .

Extensive epidemiological investigation designated 291 contact herds for follow-up by serology.

Serological analysis of all contact herds detected another 4 breakdowns of *Brucella abortus* biovar 3. After test & slaughter of 118 animals of the breakdown herds, bacteriological examination was positive for 11 animals. To follow-up this Brucellosis incidence, 3 rounds of blood sampling took place in 2012.

Respectively 538, 455 and 176 holdings and 40.780, 30.407 and 438 animals were sampled where 39, 5 and 0 blood samples were positive by a confirmatory ELISA. In consequence, 123 bacteriological examinations took place after test & slaughter of the animals, only 1 culture was positive and finally typed as *Brucella suis* biovar 2.

In addition to the serological follow-up of these contact herds by blood sampling, all Belgian dairy herds were tested three times by an ELISA of tank milk. During these 3 rounds of surveillance by tankmilk, respectively 8656, 8634 and 8497 herds were sampled and 23, 28 and 20 tank milk samples gave a non conform result. The dairy herds were blood sampled and finally only one bovine had to be mandatory slaughtered for examination by culture. *Brucella suis* biovar 3 was isolated from this animal.

Additional information

B. Brucella melitensis in goats

Status as officially free of caprine brucellosis during the reporting year

The entire country free

Belgium is officially free of *B. melitensis* since 29 March 2001 (Commission Decision 2001/292/EC).

Free regions

Belgium is officially free of caprine brucellosis during the reporting year.

Monitoring system

Sampling strategy

Serum samples taken in the framework of a national monitoring program for Maedi-Visna/CAE and at export were examined for *Brucella melitensis* specific antibodies by means of an ELISA.

Sheep and goats were tested for brucellosis by indirect ELISA (iELISA) at the NRL CODA-CERVA. All positive samples in the ELISA were supplementary tested by the Rose Bengal Test (RBT) and Complement Fixation Test (CFT) as confirmatory tests. Animals that were positive in the two confirmatory tests or that could not be analyzed and/or interpreted in RBT and/or CFT were sampled a second time.

Type of specimen taken

Blood

Methods of sampling (description of sampling techniques)

Blood sampling

Case definition

A goat is defined as infected with brucellosis if positive in all three tests: iElisa, Rose Bengal test and Complement Fixation test and isolation of *Brucella melitensis* by culture after test slaughter.

Diagnostic/analytical methods used

Complement Fixation Test CFT

Rose Bengal Test RBT

Indirect ELISA

Culture for isolation

Notification system in place

Animal Health Law of 24 March 1987 Chapter III and Royal Decree of 25 April 1988 (list of notifiable animal diseases)

Results of the investigation

At the NRL, 6.329 caprine/ovine serum samples were tested. The results confirmed those of previous years, i.e. the absence of any epidemiological or bacteriological evidence of caprine/ovine brucellosis in Belgium.

C. Brucella melitensis in sheep

Status as officially free of ovine brucellosis during the reporting year

The entire country free

Belgium is officially free from *B. melitensis* since 29 March 2001 (Commission Decision 2001/292/EC).

Free regions

Belgium is officially free of ovine brucellosis during the reporting year.

Monitoring system

Sampling strategy

Serum samples taken in the framework of a national monitoring program for Visna-Maedi/CAE and at export were examined for *Brucella melitensis* specific antibodies by means of an iELISA. Positive samples were subsequently tested in Rose Bengal and in complement fixation test.

Sheep and goats sera were tested for brucellosis by indirect ELISA (iELISA) at the NRL. All positive samples in the ELISA were then tested by the Rose Bengal Test (RBT) and Complement Fixation Test (CFT) as confirmatory tests. Animals that were positive in the two confirmatory tests or that could not be analyzed and/or interpreted in RBT and/or CFT were sampled a second time.

Type of specimen taken

Blood

Case definition

A sheep is defined as infected with brucellosis if positive in all three tests: the Elisa, the Rose Bengal test and the Complement Fixation test and isolation of *Brucella melitensis* by culture.

Diagnostic/analytical methods used

- Indirect ELISA
- Rose Bengal Test RBT
- Complement Fixation Test CFT
- Culture for isolation
- Brucellin skin test (BST)

Notification system in place

Animal Health Law of 24 March 1987 Chapter III and Royal Decree of 25 April 1988 (list of notifiable animal diseases).

Results of the investigation

At the National Reference Laboratory, 6.329 caprine/ovine serum samples were tested. The results confirmed those of previous years, i.e. the absence of any epidemiological or bacteriological evidence of caprine/ovine brucellosis in Belgium.

D. B. suis in animal

Monitoring system

Sampling strategy

Serological screening for Brucella is done for breeding pigs that are gathered (at a fair for example), at artificial insemination centers and in animals intended for trade. The methods used are Rose Bengal test (RBT), Slow Agglutination test (SAT) according to Wright, Complement Fixation test (CFT) and ELISA. Bacteriological examination for Brucella and Yersinia is done in case of positive serology.

Regularly, false positive serological reactions are reported. These are due to a Yersinia enterocolitica O9 infection and are confirmed by Yersinia enterocolitica O9 isolation in the absence of Brucella spp. isolation. B. suis biovar 2 may be isolated from wild boars (Sus scrofa). The infection seems to be endemic in wild boar in Belgium. B. suis biovar 2, circulating among wild boars, shows only limited pathogenicity for humans, if pathogenic at all.

The domestic pig population is free of brucellosis (last Brucella isolation in pigs in Belgium was in 1969).

Methods of sampling (description of sampling techniques)

Blood sampling

Tonsils

Spleen

Case definition

An animal is positive if Brucella suis is isolated by culture or typed by additional laboratory analysis.

Diagnostic/analytical methods used

Rose Bengal test RBT

Complement fixation test CFT

Indirect ELISA

Bacteriological examination

Control program/mechanisms

The control program/strategies in place

Regional monitoring program .

Since 2002, an annual surveillance program is organized by the veterinary faculty of the University of Liège (Walloon Region funds) in collaboration with the National Reference Laboratory (CODA CERVA) with the aim to analyze brucellosis in wild boars (Sus scrofa) and lagomorphs in the south of Belgium.

Blood samples and organs of hunted and/or dead animals were analyzed in order to follow-up the seroprevalence and to identify bacteriological isolates of Brucella in these species.

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

Due to the B. abortus incidence in 2012, serological follow-up of all bovine dairy herds by tank milk detected of 1 infected herd with B. suis biovar 2. All animals were slaughtered and all 64 contact herds were blood sampled. No other herds were detected with a B. suis infection.

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

If present, the row "Total -1" refers to analogous data of the previous year.

| Region | Total number of existing | | Officially free herds | | Infected herds | | Surveillance | | | Investigations of suspect cases | | | | |
|-----------------------|--------------------------|---------|-----------------------|-----|-----------------|---|------------------------|--------------------------|--------------------------|---|--|--|--|---------------------------|
| | Herds | Animals | Number of herds | % | Number of herds | % | Number of herds tested | Number of animals tested | Number of infected herds | Number of animals tested with serological blood tests | Number of animals positive serologically | Number of animals examined microbiologically | Number of animals positive microbiologically | Number of suspended herds |
| Belgique-België | 39478 | 244159 | 39478 | 100 | 0 | 0 | | 6329 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total : ¹⁾ | 39478 | 244159 | 39478 | 100 | 0 | 0 | 0 | 6329 | 0 | 0 | 0 | 0 | 0 | 0 |

Comments:

¹⁾ N.A.

Footnote:

The number of herds tested is not available.

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

If present, the row "Total -1" refers to analogous data of the previous year.

| Region | Total number of existing bovine | | Officially free herds | | Infected herds | | Surveillance | | | | | | Investigations of suspect cases | | | | | | | | |
|-----------------------|---------------------------------|---------|-----------------------|-------|-----------------|-----|-------------------------------|--------------------------|--------------------------|-------------------------------|-----------------------------------|--------------------------|---|--|---|---|---------------------------|----------------------------|-----|--|--|
| | Herds | Animals | Number of herds | % | Number of herds | % | Serological tests | | | Examination of bulk milk | | | Information about | | | Epidemiological investigation | | | | | |
| | | | | | | | Number of bovine herds tested | Number of animals tested | Number of infected herds | Number of bovine herds tested | Number of animals or pools tested | Number of infected herds | Number of notified abortions whatever cause | Number of isolations of Brucella infection | Number of abortions due to Brucella abortus | Number of animals tested with serological blood tests | Number of suspended herds | Number of positive animals | | Number of animals examined microbiologically | Number of animals positive microbiologically |
| | | | | | | | | | | | | | | | | | | Sero logically | BST | | |
| Belgique-België | 32475 | 2603148 | 32469 | 99.98 | 6 | .02 | 14513 | 270627 | 5 | 25787 | 27603 | 1 | 11324 | 1 | 1 | 71625 | 6 | 44 | 0 | 1475 | 30 |
| Total : ¹⁾ | 32475 | 2603148 | 32469 | 99.98 | 6 | .02 | 14513 | 270627 | 5 | 25787 | 27603 | 1 | 11324 | 1 | 1 | 71625 | 6 | 44 | 0 | 1475 | 30 |

Comments:

¹⁾ N.A.

Footnote:

1 breakdown herd was detected by analysis of an abortion. Another 4 breakdowns were detected by serological follow-up of all contact herds. These 5 herds were infected with Brucella abortus biovar 3. Another breakdown was detected by a surveillance of all dairy herds by an ELISA of tankmilk. This dairy herd was infected with Brucella suis biovar 2. Due to this brucellosis incident, a lot of microbiological testing by culture was realised on slaughtered animals. Of a total of 1475 cultures, 29 isolates were identified as Brucella abortus biovar 3 and 1 isolate was identified as Brucella suis biovar 2. The rest of the cultures were negative for isolation of Brucella spp.

2.7 YERSINIOSIS

2.7.1 General evaluation of the national situation

A. Yersinia enterocolitica general evaluation

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

Only a few strains of *Y. enterocolitica* cause illness in humans. The major animal reservoir for *Y. enterocolitica* strains that cause human illness are pigs but other strains are also found in many other animals including rodents, rabbits, sheep, cattle, horses, dogs, and cats. In pigs, the bacteria are most likely to be found on the tonsils. Infection is most often acquired by eating contaminated food, especially raw or undercooked pork products. Drinking contaminated unpasteurized milk or untreated water can also transmit the infection.

2.7.2 Yersiniosis in humans

A. Yersiniosis in humans

Relevance as zoonotic disease

Y. enterocolitica is a relatively infrequent cause of diarrhea and abdominal pain. Infection with *Y. enterocolitica* occurs most often in young children. Common symptoms in children are fever, abdominal pain, and diarrhea, which is often bloody. Symptoms typically develop 4 to 7 days after exposure and may last 1 to 3 weeks or longer. In older children and adults, right-sided abdominal pain and fever may be the predominant symptoms, and may be confused with appendicitis. In a small proportion of cases, complications such as skin rash, joint pains or spread of bacteria to the bloodstream can occur.

Only a few strains of *Y. enterocolitica* cause illness in humans. The major animal reservoir for *Y. enterocolitica* strains that cause human illness are pigs but other strains are also found in many other animals including rodents, rabbits, sheep, cattle, horses, dogs, and cats. In pigs, the bacteria are most likely to be found on the tonsils. Infection is most often acquired by eating contaminated food, especially raw or undercooked pork products. Drinking contaminated unpasteurized milk or untreated water can also transmit the infection.

2.7.3 Yersinia in foodstuffs

Table Yersinia in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Yersinia | Y. enterocolitica | Y. pseudotuberculosis |
|--|-----------------------|--------------------|-------------------|-----------------------------|---------------|---------------|---------------|--------------|-----------------------------------|-------------------|-----------------------|
| Meat from pig - carcass - at slaughterhouse | PRI 002 | Objective sampling | Official sampling | food sample > carcass swabs | Domestic | Single | 600 cm2 | 56 | 0 | 0 | |
| Meat from pig - minced meat - intended to be eaten cooked - at retail | DIS 888 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 25 | 5 | 5 | |
| Meat from bovine animals - minced meat - intended to be eaten cooked - at retail | DIS 888 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 12 | 2 | 2 | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail | DIS 823 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 33 | 5 | 5 | |
| Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail | DIS 888 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 8 | 0 | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail | DIS 823 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 4 | 0 | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail | DIS 823 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 9 | 1 | 1 | |

| | Yersinia spp., unspecified | Y. enterocolitica - O:3 | Y. enterocolitica - O:9 | Y. enterocolitica - unspecified |
|---|----------------------------|-------------------------|-------------------------|---------------------------------|
| Meat from pig - carcass - at slaughterhouse | | | | |
| Meat from pig - minced meat - intended to be eaten cooked - at retail | | | | 5 |

Table Yersinia in food

| | Yersinia spp., unspecified | Y. enterocolitica - O:3 | Y. enterocolitica - O:9 | Y. enterocolitica - unspecified |
|--|-------------------------------|-------------------------------|-------------------------------|---------------------------------------|
| Meat from bovine animals - minced meat - intended to be eaten cooked - at retail | | | | 2 |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail | | | | 5 |
| Meat from bovine animals and pig - minced meat - intended to be eaten cooked - at retail | | | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail | | | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail | | | | 1 |

2.7.4 Yersinia in animals

A. Yersinia enterocolitica in pigs

Monitoring system

Frequency of the sampling

Animals at slaughter (herd based approach)

Sampling distributed evenly throughout the year

Type of specimen taken

Animals at slaughter (herd based approach)

Surface of carcasses

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

Since 1940, the Competent Authority did organize analysis for *Trichinella* in pigs at the slaughterhouses. The analysis is generalized since 1991. *Trichinella* has not been detected in carcasses of pigs and horses produced for human consumption in Belgium. One autochthonous human case, probably caused by a home raised wild boar occurred in 1979.

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

Trichinellosis is virtually absent in Belgian domestic livestock. Since systematic controls of pigs and horses are done at slaughter (EU Directive 92/45/EEC) no positive case was found. The last outbreak in humans in Belgium occurred in 1979 following the consumption of meat from wild boar.

Increased monitoring in the last decade has shown that *Trichinella* spp. still circulate amongst wildlife, although both the prevalence and the intensities of infection are low.

EU Directive requires that also wild boars hunted in the EU for commercial purpose are examined for *Trichinella*. In Belgium each year about 10000 sport-hunted wild boars were tested, and recently those numbers are rising.

Until now, one animal, in 2004, originating from Mettet (province of Namur), was found to harbour a light infection. The larvae, isolated by artificial digestion were identified by PCR to be *Trichinella britovi*, a species previously not demonstrated in Belgium. *T. britovi* has sylvatic carnivores as main hosts. Even if wild boars are not the preferred host they can acquire the infection and consequently pass it to humans. Both *T. spiralis* and *T. britovi* have been associated with human infection.

One larva was recovered from a pooled sample (originating from three wild boars from a hunting party from Alle-sur-Semois) in 2007. Consecutive digestions could not reveal the causative animal, and unfortunately PCR failed to identify the *Trichinella* species.

One larva was recovered from the digestion of an individual wild boar in 2012.

The routine examination of wild boars devoted to the market has proved to be a good measure to protect the consumer against sylvatic trichinellosis.

In addition, monitoring of infection through examining sentinel animals, such as the fox, is recommended to assess the prevalence of trichinellosis and to follow trends in time.

In december 2010, 318 foxes were examined by pooled digestion, they were all negative for *Trichinella* spp.

Winter 2011-2012, 524 wild animals were examined (507 foxes, 11 badgers, 2 cats, 1 raccoon and 3 marten) were examined. One larva was recovered from a pool of 20 animals (18 foxes and 2 badgers). Unfortunately the larva could not be identified to the *Trichinella* species level by PCR .

Winter 2012-2013, 540 wild animals were examined (511 foxes, 15 badgers, 1 wild cat, 8 raccoons, 4 beech marten and 1 European polecat). Three larvae were recovered from two pools of 20 foxes each.

Serological examination might be an alternative for muscle digestion in screening programs, but can not be used in safeguarding consumer's health in meat inspection.

An extra measure to protect the consumer is to eat meat of wild boar "well done", or to freeze the meat at

Belgium - 2012 Report on trends and sources of zoonoses

-20°C for 4 weeks. An important measure to avoid spreading of the infection among wildlife is not to leave offal of animal carcasses in the field after skinning.

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

The last outbreak in humans in Belgium occurred in 1979 following the consumption of meat from wild boar.

Recent actions taken to control the zoonoses

Monitoring of wildlife.

Routine examination of wild boars destined for human consumption

Monitoring of infection through examining sentinel animals such as the fox.

Recommendation to consume wild boar meat after freezing at -20°C for 4 weeks.

Recommendation to travellers not to import raw meats of unknown origin and of susceptible animals, e.g. home made sausages, and not to consume meats of unknown quality abroad.

Additional information

The status "negligible risk for *Trichinella* in slaughterpigs kept under industrial housing conditions" was granted by the EC to Belgium end December 2010.

2.8.2 Trichinellosis in humans

A. Trichinellosis in humans

Reporting system in place for the human cases

Trichinellosis is a notifiable disease in humans in Belgium

History of the disease and/or infection in the country

The only human case of *Trichinella* infection was in 1978. A person who had fattened two wild boars for his own consumption got infected by *Trichinella*. The two boars captured as wild piglets were enclosed for fattening. This person most probably was infected after consumption of the meat of his wild boars.

Epidemiological investigations in this case did not reveal the source of infection. All possible infectious 'sources' were taken into account (e.g. rodents etc.).

Description of the positive cases detected during the reporting year

No positive human case was detected during the reporting year.

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

There are no reports of autochthonously acquired *Trichinella* infections in Belgium

2.8.3 Trichinella in animals

A. Trichinella in horses

Monitoring system

Sampling strategy

Permanent surveillance at the slaughterhouses.

Frequency of the sampling

Every slaughtered animal is sampled.

Type of specimen taken

Diaphragm, tongue or masseter muscle.

Methods of sampling (description of sampling techniques)

Horse: 5 gram of diaphragm (or tongue, or masseter) for routine diagnosis, analyses on pooled samples, 10 to 25 gram for examination of individual samples.

Case definition

An animal is considered positive in case of detection and identification of Trichinella larvae in the muscle sample.

Diagnostic/analytical methods used

Artificial digestion method of collective or individual samples. The magnetic stirrer method for digestion of pooled samples as described in Commission Regulation (EC) No 2075/2005 was used on samples of 5 gram of muscles from horses.

Results of the investigation including the origin of the positive animals

No positive animals were detected this year.

Control program/mechanisms

The control program/strategies in place

Commission Regulation (EC) No 2075/2005 imposes systematic Trichinella examination of all slaughtered pigs, horses and wild boar and other wildlife animals by artificial digestion method of muscle before marketing.

Measures in case of the positive findings or single cases

Carcasses found positive are declared unfit for human consumption.

Notification system in place

Notification to the Federal Agency for the Safety of the Food Chain is compulsory for any positive test result.

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

No positive horses found in 2012, nor before.

B. Trichinella in pigs

Officially recognised regions with negligible Trichinella risk

Belgium was granted the status of negligible Trichinella risk at the end of 2010

Monitoring system

Sampling strategy

General

Permanent surveillance of all slaughtered pigs at the slaughterhouses in implementation of Commission Regulation (EC) No 2075/2005. Derogation for fattening pigs who do apply for the criteria set in the definition 'Region with negligible risk'

For regions with negligible Trichinella risk

Testing of wildlife (mainly foxes)

Frequency of the sampling

General

Systematic Trichinella examinations of all slaughtered pigs, with the exception of some fattening pigs who do apply for the criteria set in the definition 'Region with negligible risk'.

For regions with negligible Trichinella risk

Systematic Trichinella examinations of all slaughtered pigs, with the exception of some fattening pigs who do apply for the criteria set in the definition 'Region with negligible risk'.

Type of specimen taken

General

Diaphragm muscle, 1 gram for fattening pigs, 2 grams for sows and boars.

For regions with negligible Trichinella risk

Diaphragm muscle, 1 gram for fattening pigs, 2 grams for sows and boars. No samples are examined from some fattening pigs who do apply to the criteria set in the definition of 'Region with negligible risk'.

Methods of sampling (description of sampling techniques)

General

Fattening pigs: 1 gram of diaphragm muscle to be pooled (up to 100 animals in 1 pool)

Sows and boars: 2 grams of diaphragm muscle to be pooled (up to 50 animals in 1 pool)

For regions with negligible Trichinella risk

Still almost all pigs are sampled and tested, due to logistic reasons and export outside EU.

Case definition

General

An animal is considered positive in case of detection and identification of Trichinella larvae in the muscle sample.

For regions with negligible Trichinella risk

Same as general

Diagnostic/analytical methods used

General

Artificial digestion method of collected samples.(Reference method, annex I, chapter I) and Magnetic stirrer method for pooled sample digestion/'on filter isolation' and larva detection by a latex agglutination

test (equivalent method)

The analysis is done by artificial digestion: the magnetic stirrer method of pooled 100 gram sample as described in Commission Regulation (EC) No 2075/2005, reference method, 1 gram per fattening pig, 2 grams per sow and boar, and 5 grams per horse and wild boar.

Serology may be done in live pigs and for epidemiological studies and monitoring on wildlife.

For regions with negligible *Trichinella* risk

see general

Measures in case of the positive findings or single cases

Carcasses found positive are declared unfit for human consumption.

Notification system in place

Notification to the Federal Agency for the Safety of the Food chain is compulsory for any positive test result.

Results of the investigation including description of the positive cases and the verification of the *Trichinella* species

No positive cases were found in 2012

Fattening pigs raised under controlled housing conditions in integrated production system
all negative

Fattening pigs not raised under controlled housing conditions in integrated production system

all negative

Breeding sows and boars
all negative

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

Since 1992, when the European Union Council Directive requires that wild boars (*Sus scrofa*) hunted in EU for commercial purpose should be examined for *Trichinella*, the infection has only been detected three times in wild boars from Belgium.

There is serological evidence of the presence of anti-*Trichinella* antibodies in wildlife.

Wildlife monitoring did not reveal any larvae in winter 2010 (318 foxes examined), but yielded a larva from a pool of 20 wild animals (18 foxes and 2 badgers) in winter 2011-2012 (524 wild animals examined). Unfortunately, the larva could not be identified to the species level by PCR, nor could the individual animal be identified.

During winter 2012-2013 540 wild animals were examined and three larvae were recovered from two pools of 20 foxes each.

Table *Trichinella* in animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Units tested | Total units positive for <i>Trichinella</i> | <i>T. spiralis</i> | <i>Trichinella</i> spp., unspecified |
|--|-----------------------|--------------------|-------------------|------------------------------|---------------|---------------|--------------|---|--------------------|--------------------------------------|
| Pigs - fattening pigs | FASFC | Census | Official sampling | animal sample > organ/tissue | Domestic | Animal | 11724297 | 0 | | |
| Pigs - breeding animals | FASFC | Census | Official sampling | animal sample > organ/tissue | Domestic | Animal | | 0 | | |
| Solipeds, domestic - horses - at slaughterhouse - Surveillance | FASFC | Census | Official sampling | animal sample > organ/tissue | Domestic | Animal | 9199 | 0 | | |
| Wild boars - farmed - Surveillance | FASFC | | | | | | | | | |
| Wild boars - wild - Surveillance | FASFC | Census | Official sampling | animal sample > organ/tissue | Domestic | Animal | 11691 | 2 | | 2 |
| Foxes - Monitoring | FASFC | Objective sampling | Official sampling | animal sample | Domestic | Animal | 506 | 2 | | 2 |

2.9 ECHINOCOCCOSIS

2.9.1 General evaluation of the national situation

A. Echinococcus spp. general evaluation

History of the disease and/or infection in the country

At the slaughterhouses, a small number of carcasses showing lesions of Echinococcus (cysts) are sometimes detected and notified to the Federal Agency for the Safety of the Food Chain. In case of positive findings, carcasses are partially or totally rejected and declared unfit for human consumption.

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

Echinococcosis is caused either by Echinococcus granulosus or Echinococcus multilocularis.

Echinococcus granulosus produces unilocular human hydatidosis. It is a small tapeworm (6 mm) that lives in the small intestine of domestic and wild canids. Sheep and cattle serve as intermediate hosts for the infection. Humans acquire infection by ingestion of typical taeniid eggs, which are excreted in the faeces of infected dogs: the oncospheres liberated from the eggs migrate via the bloodstream to the liver, lungs and other tissues to develop in hydatid cysts. Indigenous unilocular hydatidosis in man has been reported in Belgium.

Echinococcus multilocularis causes alveolar (multilocular) echinococcosis in humans. Foxes and dogs are the definitive hosts of this parasite and small rodents the intermediate hosts. In the liver of rodents the invasive larval stage has a multi-compartmented appearance containing many protoscolices. Ingestion of the eggs by humans can result in the development of invasive cysts in the liver. In Belgium, the percentage of infected foxes varies with the region, with a decreasing rate from the South-East to the North-West: e.g 33% in the Ardennes, 13% in the Condroz region and 2% in Flanders. The endemic region is situated under the river Meuse, on the heights of the Ardennes.

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

Post mortem visual examination is performed at the slaughterhouses in the domestic intermediate hosts: cattle, sheep, horses and pigs. Whole carcasses or parts are rejected in case Echinococcus granulosus cysts are found.

Recent actions taken to control the zoonoses

Consumption of berries is discouraged by warning messages, displayed to visitors of Parks and Woodlands.

2.10 TOXOPLASMOSIS

2.10.1 General evaluation of the national situation

A. Toxoplasmosis general evaluation

History of the disease and/or infection in the country

The majority of grazing animals seem to be inapparent carriers of tissue cysts.

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

Man is infected with *Toxoplasma gondii* through ingestion of undercooked infected meat or upon accidental ingestion of sporulated oocysts from the environment. The cat is the final host, man and most warm-blooded animals are intermediate hosts.

Most infections with *T.gondii* are asymptomatic, however mild (flu-like symptoms), moderate (lymphadenopathy, chronic fatigue) to severe disease (disseminated toxoplasmosis, encephalitis) may occur, the latter mainly in immunocompromized hosts.

Moreover, when infection occurs in pregnant women, toxoplasmosis may cause abortion and congenital disorders. If a woman acquires primary infection during pregnancy, *Toxoplasma* can be transmitted through the placenta to the foetus and lead to congenital toxoplasmosis.

A percentage of young children (1 to 14-year-old age group) may get post-natal infections with *T. gondii* and develop symptomatic toxoplasmosis (e.g. ocular disease). A number of cases of the disease in a 15 to 24-year-old age group may be referred to as acquired toxoplasmosis in immunocompetent patients, which may present with a range of signs, from lymphadenopathy to retinitis and uveitis. Immunocompetent individuals may often develop clinical toxoplasmosis. The majority of adult persons have acquired a degree of immunity to re-infection but can remain carrier.

Recent actions taken to control the zoonoses

Screening for toxoplasmosis during pregnancy is common. The seroprevalence in women tested before pregnancy is about 50%.

Prevention of congenital toxoplasmosis by specific hygienic measures seems to have limited impact.

2.11 RABIES

2.11.1 General evaluation of the national situation

A. Rabies general evaluation

History of the disease and/or infection in the country

Since the last indigenously acquired case of rabies occurred in Belgium in a bovine coming from Bastogne (province of Luxembourg) in July 1999, Belgium obtained the official status of rabies-free country in July 2001 according to the WHO recommendations (1992) and the Office Internationale des Epizooties (OIE) guidelines (1997).

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

In October 2007, Belgium lost temporary its official status of rabies free country due to a positive case of rabies in a dog, illegally imported from Morocco.

Belgium regained its official free status of rabies on 28 October 2008.

Recent actions taken to control the zoonoses

Surveillance system and methods used.

Domestic animals with nervous symptoms that are suspected of rabies have to be notified to the Federal Agency for the Safety of the Food chain. Wildlife found dead or shot should also be declared for analysis to the Scientific Institute of Public Health, the National Reference laboratory of rabies.

Collection of dead-found bats is recommended for rabies surveillance.

Live suspected animals are killed and their brain is examined by immunofluorescence and virus cultivation in neuroblasts at the Scientific Institute of Public Health.

The high percentage of examinations of cattle is in consequence of the surveillance system for TSE in cattle: all suspected BSE cases were first examined for rabies. Rabies must be considered in the differential diagnosis of BSE, although the clinical course of rabies is usually quicker than the evolution of clinical nervous symptoms in case of BSE.

The oral vaccination campaign of foxes with vaccine baits started in 1989 and was stopped by the end of 2003.

In the southern part of the country, below the rivers Sambre and Meuse, vaccination of dogs and cats is compulsory. In addition, all pets staying on any Belgian public camping must be vaccinated.

Suggestions to the European Union for the actions to be taken

It is highly recommended to report on the rabies virus type detected to be able to differentiate between the classical rabies type (genotype 1) and the European bat Lyssa virus types (unspecified or EBL 1 or EBL 2).

Bat rabies is of public health concern. The public should be made aware of the danger of human exposure to bats, especially in case of abnormal behavior of bats. Rabies is transmitted to humans and other animals through saliva, usually by a bite. Any person exposed to bats should be previously vaccinated against rabies. Nobody should handle diseased or dead bats without protection such as gloves. Any person finding a bat behaving abnormally, in an unusual place, or under unusual circumstances, should not attempt to handle or to move the animal but should contact official authority. Education and recommendations should be given to travelers in order to reduce their risk of infection. Although dogs

represent a more serious threat in many countries, yet the risk of rabies infection by bat bites also exists.

Pre-exposure vaccination should be offered to persons at risk, such as laboratory workers, veterinarians, animal handlers, international travelers. Currently available vaccines are safe and effective against both the classical rabies virus and the bat Lyssa viruses.

2.11.2 Lyssavirus (rabies) in animals

A. Rabies in dogs

Monitoring system

Sampling strategy

The brain of dogs with nervous symptoms suspected of rabies are examined by direct immunofluorescence test and virus cultivation in neuroblasts at the Scientific Institute of Public Health, the National Reference Laboratory for rabies.

Frequency of the sampling

All suspected dogs with clinical nervous symptoms are tested.

Type of specimen taken

brain

Methods of sampling (description of sampling techniques)

Small animals: head / carcass

Huge animals: brain (CNS)

Shipping and packaging conditions:

Brains are transported as soon as possible (refrigerated if possible) in a tightly sealed packet to the National Reference Laboratory. In case of transport of a carcass, an authorization is required.

The storage period of samples at the National Reference Laboratory for further analysis is one year.

Case definition

An animal is considered positive in case of a positive direct immunofluorescence test (Antigen detection) confirmed by cell cultivation of the virus or detection by RT-PCR or (rarely performed) by mice inoculation test (clinical observation of rabies symptoms).

Diagnostic/analytical methods used

Direct immunofluorescence for the detection of viral antigen, virus isolation in neuroblastoma cell culture, detection by RT-PCR, mouse inoculation test

Vaccination policy

In the Southern part of the country, below the rivers Sambre and Meuse, vaccination of dogs and cats is compulsory. In addition, all pets staying on any Belgian public camping must be vaccinated.

Oral vaccination of foxes by baits started in 1989.

Since there were no more cases of rabies for the last years, oral vaccination of foxes by baits was stopped by the end of 2003.

Measures in case of the positive findings or single cases

In case of positive findings national legislation has to be applied (Royal Decree of 10 February 1967, Royal Decree of 22 May 2005 and Ministerial Decree of 23 February 1967).

Notification system in place

Royal Decree of 10 February 1967, Animal Health Law of 24 March 1987 Chapter III and Royal Decree of 25 April 1988 (list of all notifiable animal diseases)

Notification of all laboratory confirmed cases to the competent Authority is mandatory.

Table Rabies in animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Region | Units tested | Total units positive for Lyssavirus (rabies) | Rabies virus (RABV) | EBLV-1 |
|---------------------------|-----------------------|--------------------|-------------------|-----------------------|---------------|---------------|-----------------|--------------|--|---------------------|--------|
| Cattle (bovine animals) | | Selective sampling | Official sampling | animal sample > brain | Domestic | Animal | Belgique-België | 178 | 0 | | |
| Sheep | | Selective sampling | Official sampling | animal sample > brain | Domestic | Animal | Belgique-België | 114 | 0 | | |
| Goats | | Selective sampling | Official sampling | animal sample > brain | Domestic | Animal | Belgique-België | 54 | 0 | | |
| Bats - wild - Monitoring | | Selective sampling | Official sampling | animal sample | Domestic | Animal | Belgique-België | 108 | 0 | | |
| Foxes - wild - Monitoring | | Selective sampling | Official sampling | animal sample > brain | Unknown | Animal | Belgique-België | 48 | 0 | | |
| Cats - pet animals | | Selective sampling | Official sampling | animal sample > brain | Unknown | Animal | Belgique-België | 13 | 0 | | |
| Dogs - pet animals | | Selective sampling | Official sampling | animal sample > brain | Unknown | Animal | Belgique-België | 15 | 0 | | |

| | EBLV-2 | Lyssavirus (unspecified virus) |
|--------------------------|--------|--------------------------------|
| Cattle (bovine animals) | | |
| Sheep | | |
| Goats | | |
| Bats - wild - Monitoring | | |

Table Rabies in animals

| | EBLV-2 | Lyssavirus (unspecified virus) |
|---------------------------|--------|--------------------------------------|
| Foxes - wild - Monitoring | | |
| Cats - pet animals | | |
| Dogs - pet animals | | |

2.12 STAPHYLOCOCCUS INFECTION

2.12.1 General evaluation of the national situation

2.12.2 Staphylococcus in foodstuffs

A. Staphylococcus in Food

Monitoring system

Sampling strategy

Tests for Staphylococcus were performed in minced meat, dairy products, shellfish and bakery products.

Frequency of the sampling

Samples are taken according to the national control program or in the frame of RASFF, complaints or suspicion.

Type of specimen taken

minced meat, milk, shellfish and bakery products

Methods of sampling (description of sampling techniques)

The samples were taken according to Regulation (EC) No 2073/2005.

Definition of positive finding

To determine the conformity of a sample or a batch, the criteria laid down in the Regulation (EC) No 2073/2005 are applied.

Diagnostic/analytical methods used

The method used is according to Regulation (EC) No 2073/2005.

Measures in case of the positive findings or single cases

Measures to be taken in the case of a non-compliant result:

- Notification of the producer or importer
- Possibility of a counter analysis
- Destruction of the non compliant batch or single sample
- Further investigation: additional sampling, possible recall, RASFF, ...

Table Staphylococcus in Food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Staphylococcus | S. aureus, meticillin resistant (MRSA) | S. aureus, meticillin resistant (MRSA) - spa-type t011 |
|--|-----------------------|--------------------|-------------------|--------------------|---------------|---------------|---------------|--------------|---|--|--|
| Meat from pig - minced meat - intended to be eaten raw - at retail - Monitoring | DIS 823 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 10 | 0 | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail - Monitoring | DIS 823 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 45 | 0 | | |
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Monitoring | PRI 013 | Objective sampling | Official sampling | food sample > milk | Domestic | Batch | 1 ml | 40 | 0 | | |
| Bakery products - desserts - containing raw eggs - at retail | DIS 861 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 25 | 0 | | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at processing plant | TRA 134 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 20 | 0 | | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at retail | DIS 818 | Unspecified | Official sampling | food sample | | Batch | 1 g | 19 | 0 | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 11 | 0 | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 22 | 2 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant | TRA 134 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 18 | 2 | | |

Table Staphylococcus in Food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Staphylococcus | S. aureus, meticillin resistant (MRSA) | S. aureus, meticillin resistant (MRSA) - spa-type t011 |
|--|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|---|--|--|
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant | TRA 133 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 30 | 3 | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 30 | 4 | | |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at processing plant | TRA 134 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 46 | 0 | | |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at retail | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 8 | 2 | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant | TRA 133 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 33 | 3 | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 33 | 0 | | |
| Cheeses made from sheep's milk - unspecified - made from pasteurised milk - at retail | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 91 | 0 | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm | PRI 008 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 10 | 0 | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant | TRA 133 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 8 | 1 | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail | DIS 818 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 57 | 0 | | |

Table Staphylococcus in Food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Staphylococcus | S. aureus, meticillin resistant (MRSA) | S. aureus, meticillin resistant (MRSA) - spa-type t011 |
|--|-----------------------|--------------------|-------------------|-------------|----------------|---------------|---------------|--------------|---|--|--|
| Crustaceans - unspecified - cooked - at processing plant | TRA 403 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| Crustaceans - unspecified - cooked - at retail | DIS 852 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 46 | 0 | | |
| Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm | PRI 009 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 58 | 3 | | |
| Dairy products (excluding cheeses) - ice-cream - at farm | PRI 010 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 47 | 1 | | |
| Dairy products (excluding cheeses) - ice-cream - at retail | DIS 859 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 46 | 0 | | |
| Dairy products (excluding cheeses) - milk powder and whey powder - at border control | IEC 501 | Objective sampling | Official sampling | food sample | Intra EU trade | Batch | 1 g | 8 | 0 | | |
| Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant | TRA 123 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| Dairy products (excluding cheeses) - yoghurt - at farm | PRI 007 | Objective sampling | Official sampling | food sample | Domestic | Batch | 1 g | 13 | 0 | | |
| Dairy products (excluding cheeses) - yoghurt - at processing plant | TRA 142 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 23 | 0 | | |
| Dairy products (excluding cheeses) - yoghurt - at retail | DIS 858 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 46 | 0 | | |
| Fishery products, unspecified - ready-to-eat - at processing plant | TRA 402 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| Fishery products, unspecified - ready-to-eat - at retail | DIS 808 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 46 | 0 | | |
| Fishery products, unspecified - ready-to-eat - at retail | DIS 873 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 90 | 0 | | |

Table Staphylococcus in Food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Staphylococcus | S. aureus, meticillin resistant (MRSA) | S. aureus, meticillin resistant (MRSA) - spa-type t011 |
|---|-----------------------|--------------------|-------------------|--------------------|----------------|---------------|---------------|--------------|---|--|--|
| Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - at retail | DIS 862 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 59 | 0 | | |
| Frogs leg - at border control | IEC 016 | Objective sampling | Official sampling | food sample | Intra EU trade | Batch | 1 g | 17 | 0 | | |
| Infant formula - dried - at processing plant | TRA 171 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 10 | 0 | | |
| Infant formula - dried - at retail | DIS 803 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 86 | 0 | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail - Monitoring | TRA 134 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 20 | 0 | | |
| Meat from bovine animals - minced meat - intended to be eaten cooked - at retail | DIS 888 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 19 | 0 | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail - Monitoring | DIS 888 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 9 | 0 | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant | TRA 416 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 45 | 0 | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail | DIS 801 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 46 | 0 | | |
| Meat from other animal species or not specified - meat preparation - intended to be eaten raw - at retail | DIS 815 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 236 | 0 | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant | TRA 416 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 59 | 0 | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at retail | DIS 801 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 59 | 0 | | |

Table Staphylococcus in Food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Staphylococcus | S. aureus, meticillin resistant (MRSA) | S. aureus, meticillin resistant (MRSA) - spa-type t011 |
|--|--|--|--|----------------------------------|---------------|---------------|---------------|--------------|---|--|--|
| Meat from other animal species or not specified - meat products - raw and intended to be eaten raw - at processing plant | TRA 317 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 52 | 0 | | |
| Meat from pig - meat products - fermented sausages - at processing plant | TRA 302 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 36 | 0 | | |
| Meat from pig - meat products - fermented sausages - at retail | DIS 801 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 46 | 0 | | |
| Meat from pig - meat products - raw ham - at retail | DIS 801 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 46 | 0 | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail - Monitoring | DIS 823 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 4 | 0 | | |
| Meat from pig - minced meat - intended to be eaten cooked - at retail | DIS 888 | Objective sampling | Official sampling | food sample > meat | Unknown | Batch | 1 g | 30 | 0 | | |
| Milk, cows' - raw milk - intended for direct human consumption - at retail | DIS 837 | Objective sampling | Official sampling | food sample > milk | Unknown | Batch | 1 g | 8 | 0 | | |
| Molluscan shellfish - cooked - at processing plant | TRA 401 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| Molluscan shellfish - cooked - at retail | DIS 806 | Objective sampling | Official sampling | food sample | Unknown | Batch | 1 g | 45 | 0 | | |
| | S. aureus, meticillin resistant (MRSA) - spa-type t108 | S. aureus, meticillin resistant (MRSA) - spa-type t034 | S. aureus, meticillin resistant (MRSA) - MRSA, unspecified | Staphylococcus spp., unspecified | | | | | | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail - Monitoring | | | | | | | | | | | |

Table Staphylococcus in Food

| | S. aureus, meticillin resistant (MRSA) - spa -type t108 | S. aureus, meticillin resistant (MRSA) - spa -type t034 | S. aureus, meticillin resistant (MRSA) - MRSA, unspecified | Staphylococ- cus spp., unspecified |
|--|---|---|---|--|
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail - Monitoring | | | | |
| Milk, cows' - raw milk - intended for direct human consumption - at farm - Monitoring | | | | |
| Bakery products - desserts - containing raw eggs - at retail | | | | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at processing plant | | | | |
| Cheeses made from cows' milk - fresh - made from pasteurised milk - at retail | | | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at farm | | | | |
| Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - at retail | | | | 2 |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at processing plant | | | | |
| Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - at retail | | | | |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at farm | | | | 2 |
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant | | | | 3 |

Table Staphylococcus in Food

| | S. aureus, meticillin resistant (MRSA) - spa -type t108 | S. aureus, meticillin resistant (MRSA) - spa -type t034 | S. aureus, meticillin resistant (MRSA) - MRSA, unspecified | Staphylococ- cus spp., unspecified |
|---|---|---|---|--|
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at retail | | | | 4 |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at processing plant | | | | |
| Cheeses made from goats' milk - unspecified - made from pasteurised milk - at retail | | | | |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at farm | | | | 2 |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant | | | | 3 |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at retail | | | | |
| Cheeses made from sheep's milk - unspecified - made from pasteurised milk - at retail | | | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at farm | | | | |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant | | | | 1 |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at retail | | | | |
| Crustaceans - unspecified - cooked - at processing plant | | | | |
| Crustaceans - unspecified - cooked - at retail | | | | |

Table Staphylococcus in Food

| | S. aureus, meticillin resistant (MRSA) - spa -type t108 | S. aureus, meticillin resistant (MRSA) - spa -type t034 | S. aureus, meticillin resistant (MRSA) - MRSA, unspecified | Staphylococ- cus spp., unspecified |
|---|---|---|---|--|
| Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at farm | | | | 3 |
| Dairy products (excluding cheeses) - ice-cream - at farm | | | | 1 |
| Dairy products (excluding cheeses) - ice-cream - at retail | | | | |
| Dairy products (excluding cheeses) - milk powder and whey powder - at border control | | | | |
| Dairy products (excluding cheeses) - milk powder and whey powder - at processing plant | | | | |
| Dairy products (excluding cheeses) - yoghurt - at farm | | | | |
| Dairy products (excluding cheeses) - yoghurt - at processing plant | | | | |
| Dairy products (excluding cheeses) - yoghurt - at retail | | | | |
| Fishery products, unspecified - ready-to-eat - at processing plant | | | | |
| Fishery products, unspecified - ready-to-eat - at retail | | | | |
| Fishery products, unspecified - ready-to-eat - at retail | | | | |
| Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - at retail | | | | |

Table Staphylococcus in Food

| | S. aureus, meticillin resistant (MRSA) - spa -type t108 | S. aureus, meticillin resistant (MRSA) - spa -type t034 | S. aureus, meticillin resistant (MRSA) - MRSA, unspecified | Staphylococ- cus spp., unspecified |
|--|---|---|---|--|
| Frogs leg - at border control | | | | |
| Infant formula - dried - at processing plant | | | | |
| Infant formula - dried - at retail | | | | |
| Meat from bovine animals - minced meat - intended to be eaten raw - at retail - Monitoring | | | | |
| Meat from bovine animals - minced meat - intended to be eaten cooked - at retail | | | | |
| Meat from bovine animals and pig - minced meat - intended to be eaten raw - at retail - Monitoring | | | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant | | | | |
| Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail | | | | |
| Meat from other animal species or not specified - meat preparation - intended to be eaten raw - at retail | | | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at processing plant | | | | |
| Meat from other animal species or not specified - meat products - cooked, ready-to-eat - at retail | | | | |
| Meat from other animal species or not specified - meat products - raw and intended to be eaten raw - at processing plant | | | | |

Table Staphylococcus in Food

| | S. aureus, meticillin resistant (MRSA) - spa -type t108 | S. aureus, meticillin resistant (MRSA) - spa -type t034 | S. aureus, meticillin resistant (MRSA) - MRSA, unspecified | Staphylococ- cus spp., unspecified |
|--|---|---|---|--|
| Meat from pig - meat products - fermented sausages - at processing plant | | | | |
| Meat from pig - meat products - fermented sausages - at retail | | | | |
| Meat from pig - meat products - raw ham - at retail | | | | |
| Meat from pig - minced meat - intended to be eaten raw - at retail - Monitoring | | | | |
| Meat from pig - minced meat - intended to be eaten cooked - at retail | | | | |
| Milk, cows' - raw milk - intended for direct human consumption - at retail | | | | |
| Molluscan shellfish - cooked - at processing plant | | | | |
| Molluscan shellfish - cooked - at retail | | | | |

2.12.3 Staphylococcus in animals

Table Staphylococcus in Animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Staphylococcus | S. aureus, meticillin resistant (MRSA) | S. aureus, meticillin resistant (MRSA) - spa-type t011 |
|---|-----------------------|--------------------|-------------------|----------------------------|---------------|-----------------|---------------|--------------|---|--|--|
| Cattle (bovine animals) - dairy cows - at farm - Monitoring | FASFC | Objective sampling | Official sampling | animal sample > nasal swab | Domestic | Animal | | 141 | 14 | 14 | 8 |
| Cattle (bovine animals) - calves (under 1 year) - veal calves - at slaughterhouse | FASFC | Objective sampling | Official sampling | animal sample > nasal swab | Domestic | Slaughter batch | | 104 | 49 | 49 | 40 |
| Cattle (bovine animals) - meat production animals - calves (under 1 year) - at farm | FASFC | Objective sampling | Official sampling | animal sample > nasal swab | Domestic | Herd | | 187 | 19 | 19 | 16 |

| | S. aureus, meticillin resistant (MRSA) - spa-type t108 | S. aureus, meticillin resistant (MRSA) - spa-type t034 | S. aureus, meticillin resistant (MRSA) - MRSA, unspecified | S. aureus, meticillin resistant (MRSA) - spa-type t1456 |
|---|--|--|--|---|
| Cattle (bovine animals) - dairy cows - at farm - Monitoring | | | 5 | 1 |
| Cattle (bovine animals) - calves (under 1 year) - veal calves - at slaughterhouse | | | 8 | 1 |
| Cattle (bovine animals) - meat production animals - calves (under 1 year) - at farm | | | 2 | 1 |

Footnote:

* The 4 of the 5 unspecified in dairy cattle belonged to spa-type t037 (1), t388 (1), t6228 (2) and one could not be typed.

* The 8 unspecified in veal calves at slaughter belonged to spa-type t1451 (3), t1985 (3) and t3423 (1), one was not typed.

The 2 unspecified in calves under 1 year at farm belonged to spa-type t121 (1) and t1985 (1).

2.12.4 Antimicrobial resistance in Staphylococcus isolates

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - dairy cows - quantitative data[Dilution method]

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

| S. aureus, meticillin resistant (MRSA) | Cattle (bovine animals) - dairy cows | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 1 | | | | | | | | | | | 1 | 1 | | | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 3 | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 2 | | | | | | | | | | | | | | | 1 | | 2 | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 3 | 0 | | | | | | | | | 2 | 1 | | | | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 3 | 3 | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Trimethoprim | 2 | 3 | 1 | | | | | | | | | | | | 2 | | | | | 1 | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 3 | 3 | | | | | 1 | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 3 | 3 | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 3 | 3 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 3 | 0 | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 3 | 3 | | | | | | | | 2 | | | | | 1 | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 3 | 3 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 3 | 0 | | | | | | | | | | | 1 | 2 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 3 | 3 | | | | | | | | | | | | 3 | | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - dairy cows - quantitative data
[Dilution method]

| S. aureus, meticillin resistant (MRSA) Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - dairy cows | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--------------------------------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Pleuromutilins - Tiamulin | 2 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 3 | 0 | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 128 | 3 | 2 | | | | | | | | | | | | | | | | | 1 | | | 2 | | | | |

| S. aureus, meticillin resistant (MRSA) Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - dairy cows | |
|---|--------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - dairy cows - quantitative data

[Dilution method]

| S. aureus, meticillin resistant (MRSA) Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - dairy cows | |
|---|--------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

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

| CC398 | Cattle (bovine animals) - dairy cows | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 8 | 5 | | | | | | | | | | | 3 | | | | 5 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 8 | 6 | | | | | | | | | | | | | 2 | | 1 | | 5 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 8 | 3 | | | | | | | | | | | | | 2 | 1 | 2 | 3 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 8 | 0 | | | | | | | | | | | | | 1 | 4 | 3 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 8 | 4 | | | | | | | | | | 2 | 2 | | | 4 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 8 | 7 | | | | | | | | | | 1 | | | | | 7 | | | | | | | | | |
| Trimethoprim | 2 | 8 | 6 | | | | | | | | | | | | 2 | 1 | | | 5 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 8 | 8 | | | | | 6 | 1 | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 8 | 8 | | | | | | | | | | | | | | | 8 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 8 | 8 | | | | | | | | | | 6 | | | 2 | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 8 | 0 | | | | | | | | | | | 6 | 2 | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 8 | 8 | | | | | | | | 2 | | | | | 6 | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 8 | 6 | | | | | | | | | | 1 | 1 | | | 6 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 8 | 1 | | | | | | | | | | 7 | | | | | | | | | 1 | | | | | |
| Oxazolidines - Linezolid | 4 | 8 | 0 | | | | | | | | | | | 1 | 7 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 8 | 8 | | | | | | | | | | | | 8 | | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 8 | 2 | | | | | | | | | | 5 | 1 | | 2 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 8 | 2 | | | | | | | | | | 2 | 4 | 1 | 1 | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| CC398 | Cattle (bovine animals) - dairy cows | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 8 | 2 | | | | | | | | | | | | | | | | | 6 | | | 2 | | | |

| | | |
|--|--|---------|
| CC398 | Cattle (bovine animals) - dairy cows | |
| | Isolates out of a monitoring program (yes/no) | |
| Antimicrobials: | Number of isolates available in the laboratory | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

| CC398 | Cattle (bovine animals) - dairy cows | |
|--|--------------------------------------|---------|
| | unknown | |
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | | |
| Antimicrobials: | lowest | highest |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

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

| CC398 | Cattle (bovine animals) - dairy cows | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 1 | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 1 | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of S. aureus, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| CC398 | Cattle (bovine animals) - dairy cows | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 1 | 0 | | | | | | | | | | | | | | | | | 1 | | | | | | |

| | | |
|--|--|---------|
| CC398 | Cattle (bovine animals) - dairy cows | |
| | Isolates out of a monitoring program (yes/no) | |
| Antimicrobials: | Number of isolates available in the laboratory | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

| CC398 | Cattle (bovine animals) - dairy cows | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus* in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| S. aureus | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 1 | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 1 | 1 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. aureus* in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| <i>S. aureus</i> | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 1 | 1 | | | | | | | | | | | | | | | | | | | 1 | | | | |

| <i>S. aureus</i> | Cattle (bovine animals) - young cattle (1-2 years) | |
|--|--|---------|
| | unknown | |
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |

Table Antimicrobial susceptibility testing of *S. aureus* in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| S. aureus Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - young cattle (1-2 years) | |
|---|--|---------|
| | | |
| | unknown | |
| Antimicrobials: | lowest | highest |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

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

| S. aureus, meticillin resistant (MRSA) | Cattle (bovine animals) - meat production animals | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 1 | | | | | | | | | | | 1 | | 1 | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 1 | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 2 | 1 | | | | | | | | | | | | | | 1 | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 2 | 2 | | | | | | | | | | | | 1 | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 2 | 1 | | | | | | | | | | | 1 | | | | 1 | | | | | | | | | |
| Trimethoprim | 2 | 2 | 2 | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 2 | 2 | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 2 | 2 | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 2 | 2 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 2 | 2 | | | | | | | | 1 | | 1 | | | | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 2 | 0 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 2 | 2 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 2 | 0 | | | | | | | | | | 2 | | | | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

| S. aureus, meticillin resistant (MRSA) | Cattle (bovine animals) - meat production animals | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 2 | 0 | | | | | | | | | | | | | | | | | 1 | 1 | | | | | |

| S. aureus, meticillin resistant (MRSA) | Cattle (bovine animals) - meat production animals | |
|--|---|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

| S. aureus, meticillin resistant (MRSA) | Cattle (bovine animals) - meat production animals | |
|--|---|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Macrolides - Erythromycin | 0.25 | 8 |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

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

| CC398 | Cattle (bovine animals) - meat production animals | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 16 | 11 | | | | | | | | | | | 5 | | 1 | 2 | 8 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 16 | 11 | | | | | | | | | | | | | 3 | 2 | 1 | 1 | 9 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 16 | 9 | | | | | | | | | | | | | 2 | 4 | 1 | 9 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 16 | 2 | | | | | | | | | | | | | 3 | 6 | 5 | | 2 | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 16 | 7 | | | | | | | | | 2 | 5 | 2 | | | 7 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 16 | 16 | | | | | | | | | | | | | | | 16 | | | | | | | | | |
| Trimethoprim | 2 | 16 | 16 | | | | | | | | | | | | | 1 | 1 | | 14 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 16 | 16 | | | | | 14 | | | | | 2 | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 16 | 16 | | | | | | | | | | | | | | | 16 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 16 | 16 | | | | | | | | | | 9 | 2 | 1 | 4 | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 16 | 0 | | | | | | | | | | | 13 | 3 | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 16 | 16 | | | | | | | | | | | 1 | | 15 | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 16 | 15 | | | | | | | | | 1 | | | | | 15 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 16 | 4 | | | | | | | | | | 12 | | 2 | | | | | | | 2 | | | | | |
| Oxazolidines - Linezolid | 4 | 16 | 0 | | | | | | | | | | | 5 | 11 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 16 | 16 | | | | | | | | | | | | | 16 | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 16 | 5 | | | | | | | | | | 11 | | | | 5 | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 16 | 6 | | | | | | | | | | | 5 | 5 | 2 | 4 | | | | | | | | | | |

Table Antimicrobial susceptibility testing of S. aureus, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

| CC398 | Cattle (bovine animals) - meat production animals | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|----|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 16 | 3 | | | | | | | | | | | | | | | | | 13 | | 1 | 2 | | | |

| CC398 | Cattle (bovine animals) - meat production animals | |
|--|---|---------|
| | unknown | |
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

| | | |
|--|---|---------|
| CC398 | Cattle (bovine animals) - meat production animals | |
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Macrolides - Erythromycin | 0.25 | 8 |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

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

| CC398 | Cattle (bovine animals) - meat production animals | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 1 | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 1 | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 1 | 1 | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 1 | 0 | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of S. aureus, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---------------|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| CC398 Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - meat production animals | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 1 | 0 | | | | | | | | | | | | | | | | | 1 | | | | | | | |

| | | |
|---|---|--------|
| CC398 Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - meat production animals | |
| | unknown | |
| | Antimicrobials: | lowest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - meat production animals - quantitative data [Dilution method]

| | | |
|--|---|---------|
| CC398 | Cattle (bovine animals) - meat production animals | |
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Macrolides - Erythromycin | 0.25 | 8 |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1451 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

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

| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 3 | | | | | | | | | | | | | | 1 | 2 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 3 | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 3 | 1 | | | | | | | | | | | | | 1 | 1 | | 1 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 0 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 3 | 2 | | | | | | | | | 1 | | | | | 2 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 3 | 3 | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Trimethoprim | 2 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 3 | 3 | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 3 | 3 | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 3 | 3 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 3 | 0 | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 3 | 3 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 3 | 3 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 3 | 0 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 3 | 3 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 3 | 0 | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 3 | 0 | | | | | | | | | | 1 | 2 | | | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of S. aureus, meticillin resistant (MRSA) - spa-type t1451 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 3 | 0 | | | | | | | | | | | | | | | | | 3 | | | | | | |

| | | |
|--|--|---------|
| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | |
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1451 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| CC398 Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - young cattle (1-2 years) | |
|--|--|---------|
| | | |
| | unknown | |
| Antimicrobials: | lowest | highest |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus* in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

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

| <i>S. aureus</i> | Cattle (bovine animals) - dairy cows | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|--------|--------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 2 | 2 | | | | | | | | | | | | | | 1 | 1 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 2 | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 2 | 2 | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 0 | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 2 | 1 | | | | | | | | | | | 1 | | | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 2 | 2 | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Trimethoprim | 2 | 2 | 2 | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 2 | 2 | | | | | 1 | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 2 | 2 | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 2 | 2 | | | | | | | | | | 1 | | | 1 | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 2 | 0 | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 2 | 2 | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 2 | 2 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 2 | 0 | | | | | | | | | | | 1 | 1 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 2 | 2 | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 2 | 1 | | | | | | | | | | 1 | | | 1 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 2 | 1 | | | | | | | | | | 1 | | | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 128 | 2 | 1 | | | | | | | | | | | | | | | | | 1 | | | 1 | | | | |

Table Antimicrobial susceptibility testing of *S. aureus* in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

| S. aureus Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - dairy cows | |
|---|--------------------------------------|---------|
| | | |
| | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of S. aureus in Cattle (bovine animals) - dairy cows - quantitative data [Dilution method]

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

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

| S. aureus, meticillin resistant (MRSA) | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 3 | 2 | | | | | | | | | | | 1 | | | | 2 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 3 | 3 | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 3 | 2 | | | | | | | | | | | | | | | 1 | 1 | 1 | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 3 | 0 | | | | | | | | | 1 | 2 | | | | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 3 | 3 | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Trimethoprim | 2 | 3 | 3 | | | | | | | | | | | | | | | | 3 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 3 | 3 | | | | | 2 | | | | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 3 | 3 | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 3 | 3 | | | | | | | | | | 2 | | 1 | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 3 | 0 | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 3 | 3 | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 3 | 3 | | | | | | | | | | | | | | 3 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 3 | 1 | | | | | | | | | | 2 | | | | | | | | | 1 | | | | | |
| Oxazolidines - Linezolid | 4 | 3 | 0 | | | | | | | | | | | 1 | 2 | | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 3 | 3 | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 3 | 1 | | | | | | | | | | 2 | | | 1 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 3 | 1 | | | | | | | | | | 1 | 1 | | 1 | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| S. aureus, meticillin resistant (MRSA) Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Antimicrobials: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 128 | 3 | 2 | | | | | | | | | | | | | | | | | 1 | | 1 | 1 | | | |

| S. aureus, meticillin resistant (MRSA) Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - young cattle (1-2 years) | |
|---|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| S. aureus, meticillin resistant (MRSA) Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - young cattle (1-2 years) | |
|---|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

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

| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 40 | 36 | | | | | | | | | | | 4 | | 1 | 1 | 34 | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 40 | 35 | | | | | | | | | | | | | 4 | 1 | | 1 | 34 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 40 | 24 | | | | | | | | | | | | | 8 | 8 | | 24 | | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 40 | 4 | | | | | | | | | | | | | 1 | 18 | 17 | 1 | 3 | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 40 | 18 | | | | | | | | | 10 | 11 | 1 | 1 | | 17 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 40 | 40 | | | | | | | | | | | | | | | 40 | | | | | | | | | |
| Trimethoprim | 2 | 40 | 40 | | | | | | | | | | | | | 1 | | | 39 | | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 40 | 40 | | | | | 38 | | | 1 | | 1 | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 40 | 40 | | | | | | | | | | | | | | 4 | 36 | | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 40 | 40 | | | | | | | | | | 30 | 7 | | 3 | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 40 | 0 | | | | | | | | | | | 35 | 5 | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 40 | 40 | | | | | | | | 2 | 1 | | | | 37 | | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 40 | 37 | | | | | | | | | 1 | 2 | | | | 37 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 40 | 2 | | | | | | | | | | 36 | 2 | 1 | | | | | | | 1 | | | | | |
| Oxazolidines - Linezolid | 4 | 40 | 0 | | | | | | | | | | | 11 | 28 | 1 | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 40 | 40 | | | | | | | | | | | 1 | 39 | | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 40 | 5 | | | | | | | | | | 32 | 3 | | 5 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 40 | 7 | | | | | | | | | | 10 | 23 | 3 | 4 | | | | | | | | | | | |

Table Antimicrobial susceptibility testing of S. aureus, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 40 | 10 | | | | | | | | | | | | | | | | | 28 | 2 | 5 | 5 | | | |

| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | |
|--|--|---------|
| | Cattle (bovine animals) - young cattle (1-2 years) | |
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t011 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | |
|--|--|---------|
| | unknown | |
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | | |
| Antimicrobials: | lowest | highest |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

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

| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 1 | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 1 | 0 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 1 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Trimethoprim | 2 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Antimycobacterial drugs - Rifampicin | 0 | 1 | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Cephalosporins - Cefoxitin | 4 | 1 | 1 | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Fusidanes - Fusidic acid | 0 | 1 | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 2 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Lincosamides - Clindamycin | 0 | 1 | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Macrolides - Erythromycin | 1 | 1 | 1 | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Monocarboxylic acid - Mupirocin | 1 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Penicillins - Penicillin | 0 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Pleuromutilins - Tiamulin | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 1 | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Sulfonamides - Sulfamethoxazole | 128 | 1 | 0 | | | | | | | | | | | | | | | | | 1 | | | | | | |

| | | |
|--|--|---------|
| CC398 | Cattle (bovine animals) - young cattle (1-2 years) | |
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| | | |
| Aminoglycosides - Gentamicin | 1 | 16 |
| Aminoglycosides - Kanamycin | 4 | 64 |
| Aminoglycosides - Streptomycin | 4 | 32 |
| Amphenicols - Chloramphenicol | 4 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.25 | 8 |
| Tetracyclines - Tetracycline | 0.5 | 16 |
| Trimethoprim | 2 | 32 |
| Antimycobacterial drugs - Rifampicin | 0.016 | 0.5 |
| Cephalosporins - Cefoxitin | 0.5 | 16 |
| Fusidanes - Fusidic acid | 0.5 | 4 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 1 | 16 |
| Lincosamides - Clindamycin | 0.12 | 4 |
| Macrolides - Erythromycin | 0.25 | 8 |

Table Antimicrobial susceptibility testing of *S. aureus*, meticillin resistant (MRSA) - spa-type t1456 - CC398 in Cattle (bovine animals) - young cattle (1-2 years) - quantitative data [Dilution method]

| CC398 Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - young cattle (1-2 years) | |
|--|--|---------|
| | | |
| | unknown | |
| Antimicrobials: | lowest | highest |
| Monocarboxylic acid - Mupirocin | 0.5 | 256 |
| Oxazolidines - Linezolid | 1 | 8 |
| Penicillins - Penicillin | 0.12 | 2 |
| Pleuromutilins - Tiamulin | 0.5 | 4 |
| Streptogramins - Quinupristin/Dalfopristin | 0.5 | 4 |
| Sulfonamides - Sulfamethoxazole | 64 | 512 |

2.13 Q-FEVER

2.13.1 General evaluation of the national situation

A. Coxiella burnetii (Q-fever) general evaluation

History of the disease and/or infection in the country

In 2012, the monitoring of tankmilk continued. The farms with milkgoats and milksheep were tested every 2 months.

For cattle, sheep and goats, in case of abortion, samples are tested against a number of possible infectious agents including *Coxiella burnetii*.

The circulation of *Coxiella burnetii* on cattle farms is known due to the presence of antibodies against *Coxiella burnetii* in the milk.

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

Of the 13 RT-PCR positive milkgoatfarms in 2010, 9 were still/again positive in 2011 and 12 in 2012.

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

There is a steady state in the number of reported cases of human Q-fever in Belgium.

Recent actions taken to control the zoonoses

Milk from goats or sheep herds where *Coxiella burnetii* was found has to be pasteurized before human consumption. The location of positive herds is reported to the public health services for the purpose of warning the medical doctors.

B. Coxiella general evaluation

History of the disease and/or infection in the country

2.13.2 Coxiella (Q-fever) in animals

Table Coxiella burnetii (Q fever) in animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Analytical Method | Sampling unit | Units tested | Total units positive for Coxiella (Q-fever) | C. burnetii | No of clinically affected herds |
|---|-----------------------|--------------------|--------------------------------|-----------------------------------|---------------|-------------------|---------------|--------------|---|-------------|---------------------------------|
| Cattle (bovine animals) - at farm - Clinical investigations | FASFC/COD A | Suspect sampling | Official sampling | animal sample > blood | Domestic | ELISA | Animal | 422 | 108 | 108 | |
| Sheep - at farm - Clinical investigations | FASFC/COD A | Suspect sampling | Official sampling | animal sample > blood | Domestic | ELISA | Animal | 77 | 5 | 5 | |
| Goats - at farm - Clinical investigations | FASFC/COD A | Suspect sampling | Official sampling | animal sample > blood | Domestic | ELISA | Animal | 1676 | 796 | 796 | |
| Goats - at farm - Monitoring ¹⁾ | FASFC/COD A | Selective sampling | Official and industry sampling | animal sample > milk | Domestic | Real-Time PCR | Herd | 108 | 12 | 12 | 0 |
| Cattle (bovine animals) - at farm - Clinical investigations | FASFC/COD A | Suspect sampling | Official sampling | animal sample > foetus/stillbirth | Domestic | Real-Time PCR | Animal | 9699 | 147 | 147 | |
| Goats - at farm - Clinical investigations | FASFC/COD A | Suspect sampling | Official sampling | animal sample > foetus/stillbirth | Domestic | Real-Time PCR | Animal | 1069 | 110 | 110 | |
| Sheep - at farm - Clinical investigations | FASFC/COD A | Suspect sampling | Official sampling | animal sample > foetus/stillbirth | Domestic | Real-Time PCR | Animal | 503 | 1 | 1 | |

Comments:

¹⁾ Only milk producing flocks are tested every 2 months

Table Coxiella burnetii (Q fever) in animals

2.14 CYSTICERCOSIS, TAENIOSIS

2.14.1 General evaluation of the national situation

A. Cysticerci general evaluation

History of the disease and/or infection in the country

Cattle

Taenia saginata:

| | |
|------|--|
| 2002 | total 3.336 (3.317 lightly, 18 heavily contaminated) |
| 2003 | total 3.886 (3.859 lightly, 25 heavily contaminated) |
| 2004 | total 3.002 (2.981 lightly, 21 heavily contaminated) |
| 2005 | total 2.392 (2.376 lightly, 16 heavily contaminated) |
| 2006 | total 1.824 (1.796 lightly, 28 heavily contaminated) |
| 2007 | total 1.527 (1.517 lightly, 10 heavily contaminated) |
| 2008 | total 2.374 (2.356 lightly, 18 heavily contaminated) |
| 2009 | total 1.820 (1.811 lightly, 9 heavily contaminated) |
| 2010 | total 1.766 (1.756 lightly, 10 heavily contaminated) |
| 2011 | total 1.347 (1.336 lightly, 11 heavily contaminated) |
| 2012 | total 1.214 (1.205 lightly, 9 heavily contaminated) |

Pigs

The Belgian pig population is free from *Cysticercus cellulosae*. *Taenia solium* (and *Cysticercus cellulosae*) is not autochthonous in Belgium.

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

Cysticercus bovis in muscular tissue of cattle is the larval stage of the tapeworm, *Taenia saginata*, a parasitic cestode of the human gut (taeniasis). Cattle can become infected by ingestion of vegetation contaminated with *T. saginata* eggs shed in human faeces. Risk factors are access to rivers and flooding of pastures or wetland.

Humans contaminate themselves by the ingestion of raw or undercooked beef containing the larval form (cysticerci). Usually pathogenicity for humans is low. The tapeworm eggs contaminate the environment directly or through surface waters. Human carriers should be treated promptly. Strict rules for the hygienic disposal or sanitation of human faeces with a method that inactivates *T. saginata* eggs should be developed. The spreading of human excrement on land should not be allowed.

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

Post-mortem, macroscopic examination of carcasses of adult cattle as well as calves is routinely done in all slaughterhouses. Serological examination is possible and confirmation of the lesions by PCR or DNA-test can be done.

Lightly contaminated carcasses are treated by freezing at -18°C for 10 days before declared fit for human consumption. Heavily contaminated carcasses are unfit for human consumption and are destroyed.

Suggestions to the European Union for the actions to be taken

The introduction of serological analyzes for the detection of cysticerci antigens in the serum of animals (cattle) should be developed. This would allow the detection of more cases than by visual inspection of

Belgium - 2012 Report on trends and sources of zoonoses
carcasses at slaughterhouse.

2.14.2 Cysticerci in animals

Table Cysticerci in Animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Cysticerci | Cysticerci of Taenia saginata |
|--|-----------------------|-------------------|-------------------|---------------|---------------|---------------|---------------|--------------|-------------------------------------|-------------------------------|
| Cattle (bovine animals) - meat production animals - at slaughterhouse - Surveillance | FASFC | Suspect sampling | Official sampling | animal sample | Domestic | Animal | | 824511 | 1214 | 1214 |

Footnote:

Detection of 1205 lightly and 9 heavily contaminated carcasses by meat inspection. Lightly contaminated carcasses are treated by freezing at -18°C for 10 days before declared fit for human consumption. Heavily contaminated carcasses are unfit for human consumption and are destroyed.

2.15 SARCOCYSTOSIS

2.15.1 General evaluation of the national situation

A. Sarcocystis general evaluation

History of the disease and/or infection in the country

At the slaughterhouses, a small number of carcasses showing myositis eosinophilica (green coloring spots of the carcass) are detected and notified to the Federal Agency for the Safety of the Food Chain. In case of positive findings, carcasses are totally rejected and declared unfit for human consumption. In 2010, 2011 and 2012 respectively 37, 44 and 60 cases of sarcosporidiosis in cattle were reported.

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

Sarcocystis bovihominis (bovine as intermediate host) and Sarcocystis suihominis (porcine intermediate host) occur sporadically. Domestic carnivores are hosts of the adult stage.

Humans can be a definitive host for sarcosporidiosis by ingestion of infected meat or excreted oocysts and develop symptoms like diarrhea, headache, eosinophilia, abortion, congenital disorder.

For human sarcosporidiosis there is no immunity development.

The majority of grazing animals are inapparent carriers of tissue cysts.

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

Carcasses are entirely condemned when myositis eosinophilica lesions are apparent. Myositis eosinophilica is commonly associated with sarcosporidiosis but this is still not proven!

2.15.2 Sarcocystis in animals

Table Sarcocystis in Animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Sarcocystis | Sarcocystis spp., unspecified |
|--|-----------------------|-------------------|-------------------|---------------|---------------|---------------|---------------|--------------|--------------------------------------|-------------------------------|
| Cattle (bovine animals) - meat production animals - at slaughterhouse - Surveillance | FASFC | Suspect sampling | Official sampling | animal sample | Domestic | Animal | | 824511 | 60 | 60 |

2.16 HEPATITIS

2.16.1 General evaluation of the national situation

2.17 WEST NILE VIRUS INFECTIONS

2.17.1 General evaluation of the national situation

2.17.2 West Nile Virus in animals

A. West Nile Virus in Animals

Monitoring system

Sampling strategy

A surveillance of 'free range' domestic poultry and wild birds was organized based on the surveillance program of Avian Influenza since 2010. Blood samples of 1600 domestic poultry and 906 wild birds were all negative by IgG ELISA. Virological analyses of 378 pools of live wild birds and 105 pools of intestins and brains of death wild birds were all negative by RT PCR.

A surveillance of horses and bovines was organized in 2012. At random selected horses and horses for intra EU transport/trade were analyzed by IgG ELISA and/or Real Time PCR. Also a surveillance by IgG ELISA was realized of bovines.

Type of specimen taken

Blood

Oropharyngeal swabs

Brain (CNS)

Intestin

Diagnostic/analytical methods used

IgG ELISA

Seroneutralisation test

Real Time PCR

Table West Nile Virus in Animals

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Vaccination status | Analytical Method | Sampling unit | Region | Units tested | Total units positive for West Nile Virus |
|--|--------------------------|--------------------|-------------------|------------------------------|---------------|--------------------|-------------------------|---------------|-----------------|--------------|--|
| Birds - wild - natural habitat - Monitoring - active | ¹⁾ CODA CERVA | Selective sampling | Official sampling | animal sample | Unknown | no | Real-Time PCR | Animal | Belgique-België | 378 | 0 |
| Birds - wild - natural habitat - Monitoring - passive | ²⁾ CODA CERVA | Suspect sampling | Official sampling | animal sample | Unknown | no | Real-Time PCR | Animal | Belgique-België | 210 | 0 |
| Birds - wild - natural habitat - Surveillance | ³⁾ CODA CERVA | Objective sampling | Official sampling | animal sample > brain | Unknown | no | Real-Time PCR | Animal | Belgique-België | 105 | 0 |
| Birds - wild - natural habitat - Surveillance | CODA CERVA | Objective sampling | Official sampling | animal sample > blood | Unknown | no | Real-Time PCR | Animal | Belgique-België | 579 | 0 |
| Birds - wild - natural habitat - Surveillance | CODA CERVA | Objective sampling | Official sampling | animal sample > blood | Unknown | no | IgG ELISA | Animal | Belgique-België | 906 | 0 |
| Birds - wild - natural habitat - Surveillance | ⁴⁾ CODA CERVA | Objective sampling | Official sampling | animal sample > organ/tissue | Unknown | no | Real-Time PCR | Animal | Belgique-België | 105 | 0 |
| Cattle (bovine animals) - adult cattle over 2 years - at farm - Surveillance | CODA CERVA | Objective sampling | Official sampling | animal sample > blood | Domestic | no | IgG ELISA | Animal | Belgique-België | 1670 | 0 |
| Poultry, unspecified - at farm - Surveillance | CODA CERVA | Objective sampling | Official sampling | animal sample > blood | Domestic | no | IgG ELISA | Animal | Belgique-België | 1600 | 0 |
| Solipeds, domestic - horses | ⁵⁾ CODA CERVA | Objective sampling | Official sampling | animal sample > blood | Domestic | Unknown | Seroneutralisation test | Animal | Belgique-België | 33 | 24 |
| Solipeds, domestic - horses | CODA CERVA | Objective sampling | Official sampling | animal sample > blood | Domestic | Unknown | IgG ELISA | Animal | Belgique-België | 746 | 33 |
| Solipeds, domestic - horses - unspecified - Clinical investigations | CODA CERVA | Suspect sampling | Official sampling | animal sample > brain | Domestic | Unknown | Real-Time PCR | Animal | Belgique-België | 5 | 0 |

Table West Nile Virus in Animals

Comments:

- 1) oropharyngeal swab of live birds
- 2) oropharyngeal swab of live birds
- 3) death birds
- 4) intestin, death birds
- 5) confirmation

3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE

3.1 ESCHERICHIA COLI, NON-PATHOGENIC

3.1.1 General evaluation of the national situation

A. Escherichia coli general evaluation

Recent actions taken to control the zoonoses

3.1.2 Escherichia coli, non-pathogenic in foodstuffs

A. E. coli in food

Monitoring system

Sampling strategy

The hygiene of slaughtering and cutting process is watched via the evaluation of the contamination of carcasses and cutting meat by indicators of faecal contamination.

Frequency of the sampling

every week

Type of specimen taken

Meat

Methods of sampling (description of sampling techniques)

Broilers and laying hens carcasses are taken at slaughterhouses. At cutting plants about 200g of meat were taken.

Definition of positive finding

Action limits were established for every matrix.

Diagnostic/analytical methods used

ISO method was used to count E. coli in food.

Measures in case of the positive findings or single cases

Monitoring/Not favorable results are sent to the FASFC.

3.1.3 Antimicrobial resistance in Escherichia coli, non-pathogenic

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Gallus gallus (fowl) - quantitative data [Dilution method]

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

| E.coli, non-pathogenic, unspecified Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|-----|-----|---------|---------|-------|-------|-------|------|------|------|------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-------|------|------|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 325 | 19 | | | | | | | | | 1 | 139 | 156 | 10 | 5 | 3 | 9 | 2 | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 325 | 46 | | | | | | | | | | | | | 265 | 14 | 2 | 3 | 1 | 40 | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 325 | 265 | | | | | | | | | | | | | 9 | 38 | 13 | 26 | 32 | 207 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 325 | 145 | | | | | | | | | | | | 2 | 58 | 103 | 17 | 36 | 109 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 325 | 12 | | | | | | | | | | | | 1 | 125 | 162 | 25 | 5 | 7 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 325 | 325 | | | | | | | 212 | 17 | 5 | 8 | 6 | 12 | 65 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 325 | 325 | | | | 53 | | 13 | 4 | 36 | 99 | 36 | 15 | 14 | 10 | 45 | | | | | | | | | | |
| Penicillins - Ampicillin | 8 | 325 | 259 | | | | | | | | | | | | | 32 | 29 | 5 | | 259 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 325 | 253 | | | | | | | | | | | | | 63 | 6 | 3 | 10 | 243 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 325 | 222 | | | | | | | | | | | 15 | 82 | 4 | 2 | 6 | 11 | 205 | | | | | | | |
| Trimethoprim | 2 | 325 | 223 | | | | | | | | | | 87 | 11 | 4 | 2 | 2 | 1 | 218 | | | | | | | | |
| Cephalosporins - Ceftazidim | 0 | 325 | 325 | | | | | | | | | 225 | 19 | 23 | 12 | 7 | 14 | 25 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 325 | 14 | | | | | | | | | | | | 311 | 14 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 64 | 325 | 260 | | | | | | | | | | | | | | 4 | 24 | 27 | 10 | 2 | 1 | 1 | | 256 | | |

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Gallus gallus (fowl) - quantitative data [Dilution method]

| E.coli, non-pathogenic, unspecified Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| E.coli, non-pathogenic, unspecified | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|-----|-----|---------|---------|-------|-------|-------|------|------|------|------|-----|-----|-----|-----|----|----|-----|-----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 205 | 2 | | | | | | | | | 1 | 78 | 114 | 10 | | | | 2 | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 205 | 9 | | | | | | | | | | | | | 193 | 3 | 2 | | 1 | 6 | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 205 | 110 | | | | | | | | | | | | | 12 | 58 | 25 | 21 | 23 | 66 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 205 | 62 | | | | | | | | | | | | 2 | 34 | 99 | 8 | 22 | 40 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 205 | 10 | | | | | | | | | | | | 5 | 69 | 97 | 24 | 2 | 8 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 205 | 205 | | | | | | | 188 | 11 | | 1 | 2 | 1 | 2 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 205 | 205 | | | 7 | 133 | | 31 | 9 | 5 | 14 | 1 | | | | 5 | | | | | | | | | | |
| Penicillins - Ampicillin | 8 | 205 | 99 | | | | | | | | | | 2 | 4 | 49 | 49 | 2 | 2 | 97 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 205 | 25 | | | | | | | | | | | | | 172 | 5 | 3 | 5 | 20 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 205 | 126 | | | | | | | | | | | 19 | 52 | 6 | 2 | 3 | 7 | 116 | | | | | | | |
| Trimethoprim | 2 | 205 | 112 | | | | | | | | | | 90 | 2 | 1 | 1 | | 1 | 110 | | | | | | | | |
| Cephalosporins - Ceftazidim | 0 | 205 | 205 | | | | | | | | | 188 | 10 | 2 | 3 | 1 | 1 | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 205 | 1 | | | | | | | | | | | | 204 | 1 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 64 | 205 | 123 | | | | | | | | | | | | | | 13 | 34 | 22 | 13 | 3 | 2 | 1 | | 117 | | |

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| E.coli, non-pathogenic, unspecified | Pigs - breeding animals - raised under controlled housing conditions | |
|-------------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Poultry, unspecified - quantitative data [Dilution method]

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

| E.coli, non-pathogenic, unspecified | Poultry, unspecified | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|----------------------|---|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|---------|------|------|--|--|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aminoglycosides - Gentamicin | 2 | 2 | 0 | | | | | | | | | | 1 | 1 | | | | | | | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 2 | 1 | | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 2 | 1 | | | | | | | | | | | | | | 1 | | | | 1 | | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | | 1 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 2 | 0 | | | | | | | | | | | | | 1 | 1 | | | | | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 2 | 2 | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 2 | 2 | | | | 1 | | | | | 1 | | | | | | | | | | | | | | | | |
| Penicillins - Ampicillin | 8 | 2 | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 2 | 1 | | | | | | | | | | | | | 1 | | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 8 | 2 | 2 | | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Trimethoprim | 2 | 2 | 1 | | | | | | | | | | 1 | | | | | | | | | 1 | | | | | | |
| Cephalosporins - Ceftazidim | 0 | 2 | 2 | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Polymyxins - Colistin | 2 | 2 | 0 | | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 64 | 2 | 1 | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | | |

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Poultry, unspecified - quantitative data [Dilution method]

| E.coli, non-pathogenic, unspecified | Poultry, unspecified | |
|-------------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Cattle (bovine animals) - mixed herds - quantitative data

[Dilution method]

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

| E.coli, non-pathogenic, unspecified | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-----|-----|---------|---------|-------|-------|-------|------|------|------|------|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 2 | 364 | 22 | | | | | | | | | 2 | 184 | 153 | 3 | 4 | 4 | 8 | 6 | | | | | | | | |
| Aminoglycosides - Kanamycin | 8 | 364 | 79 | | | | | | | | | | | | | 278 | 7 | 3 | 2 | 2 | 72 | | | | | | |
| Aminoglycosides - Streptomycin | 16 | 364 | 188 | | | | | | | | | | | | | 39 | 113 | 24 | 17 | 33 | 138 | | | | | | |
| Amphenicols - Chloramphenicol | 16 | 364 | 113 | | | | | | | | | | | | 9 | 72 | 149 | 21 | 24 | 89 | | | | | | | |
| Amphenicols - Florfenicol | 16 | 364 | 29 | | | | | | | | | | | | 11 | 118 | 164 | 42 | 7 | 22 | | | | | | | |
| Cephalosporins - Cefotaxime | 0 | 364 | 364 | | | | | | | 308 | 18 | 6 | 4 | 7 | 6 | 15 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 0 | 364 | 364 | | | 10 | 190 | | 41 | 8 | 23 | 49 | 10 | 3 | 2 | 2 | 26 | | | | | | | | | | |
| Penicillins - Ampicillin | 8 | 364 | 204 | | | | | | | | | | | 4 | 63 | 85 | 8 | 1 | 203 | | | | | | | | |
| Quinolones - Nalidixic acid | 16 | 364 | 104 | | | | | | | | | | | | | 239 | 12 | 9 | 8 | 96 | | | | | | | |
| Tetracyclines - Tetracycline | 8 | 364 | 212 | | | | | | | | | | | 31 | 105 | 11 | 5 | 6 | 10 | 196 | | | | | | | |
| Trimethoprim | 2 | 364 | 183 | | | | | | | | | | 167 | 13 | 1 | 3 | 2 | 1 | 177 | | | | | | | | |
| Cephalosporins - Ceftazidim | 0 | 364 | 364 | | | | | | | | | 317 | 11 | 13 | 5 | 7 | 6 | 5 | | | | | | | | | |
| Polymyxins - Colistin | 2 | 364 | 18 | | | | | | | | | | | | 346 | 18 | | | | | | | | | | | |
| Sulfonamides - Sulfamethoxazole | 64 | 364 | 216 | | | | | | | | | | | | | | 10 | 54 | 54 | 30 | 5 | 2 | 2 | | 207 | | |

Table Antimicrobial susceptibility testing of E.coli, non-pathogenic, unspecified in Cattle (bovine animals) - mixed herds - quantitative data

[Dilution method]

| E.coli, non-pathogenic, unspecified Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - mixed herds | |
|--|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 0.25 | 32 |
| Aminoglycosides - Kanamycin | 4 | 128 |
| Aminoglycosides - Streptomycin | 2 | 128 |
| Amphenicols - Chloramphenicol | 2 | 64 |
| Amphenicols - Florfenicol | 2 | 64 |
| Cephalosporins - Cefotaxime | 0.06 | 4 |
| Fluoroquinolones - Ciprofloxacin | 0.008 | 8 |
| Penicillins - Ampicillin | 0.5 | 32 |
| Quinolones - Nalidixic acid | 4 | 64 |
| Tetracyclines - Tetracycline | 1 | 64 |
| Trimethoprim | 0.5 | 32 |
| Cephalosporins - Ceftazidim | 0.25 | 16 |
| Polymyxins - Colistin | 2 | 4 |
| Sulfonamides - Sulfamethoxazole | 8 | 1024 |

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Animals

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|-----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 2 | |
| | Streptomycin | | 16 | |
| Amphenicols | Chloramphenicol | | 16 | |
| Cephalosporins | Cefotaxime | | 0.25 | |
| Fluoroquinolones | Ciprofloxacin | | 0.03 | |
| Penicillins | Ampicillin | | 8 | |
| Quinolones | Nalidixic acid | | 16 | |
| Sulfonamides | Sulfonamides | | 256 | |
| Tetracyclines | Tetracycline | | 8 | |
| Trimethoprim | Trimethoprim | | 2 | |

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Feed

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|-----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 2 | |
| | Streptomycin | | 16 | |
| Amphenicols | Chloramphenicol | | 16 | |
| Cephalosporins | Cefotaxime | | 0.25 | |
| Fluoroquinolones | Ciprofloxacin | | 0.03 | |
| Penicillins | Ampicillin | | 8 | |
| Quinolones | Nalidixic acid | | 16 | |
| Sulfonamides | Sulfonamides | | 256 | |
| Tetracyclines | Tetracycline | | 8 | |
| Trimethoprim | Trimethoprim | | 2 | |

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Food

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|------------------|-----------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 2 | |
| | Streptomycin | | 16 | |
| Amphenicols | Chloramphenicol | | 16 | |
| Cephalosporins | Cefotaxime | | 0.25 | |
| Fluoroquinolones | Ciprofloxacin | | 0.03 | |
| Penicillins | Ampicillin | | 8 | |
| Quinolones | Nalidixic acid | | 16 | |
| Sulfonamides | Sulfonamides | | 256 | |
| Tetracyclines | Tetracycline | | 8 | |
| Trimethoprim | Trimethoprim | | 2 | |

3.2 ENTEROCOCCUS, NON-PATHOGENIC

3.2.1 General evaluation of the national situation

3.2.2 Enterococcus, non-pathogenic in animals

A. Enterococcus spp., unspecified in Animals

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

The antimicrobial resistance of non-pathogenic enterococci was monitored for the first time in 2011 in poultry, pigs and bovines. There was a high level of resistance in all species. However resistance in strains from bovine origin is lower compared to the strains from pigs and poultry.

3.2.3 Antimicrobial resistance in Enterococcus, non-pathogenic isolates

Table Antimicrobial susceptibility testing of *E. faecium* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

| E. faecium | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-----|-----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|-----|-----|-----|----|----|-----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 162 | 3 | | | | | | | | | | | | | 10 | 104 | 43 | 2 | | | 1 | 2 | | | | |
| Aminoglycosides - Streptomycin | 128 | 162 | 102 | | | | | | | | | | | | | | | | 8 | 46 | 6 | 3 | 8 | | 91 | | |
| Amphenicols - Chloramphenicol | 32 | 162 | 2 | | | | | | | | | | | | 2 | 25 | 100 | 11 | 22 | 1 | 1 | | | | | | |
| Amphenicols - Florfenicol | 8 | 162 | 0 | | | | | | | | | | | | 29 | 132 | 1 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 162 | 13 | | | | | | | | | | 4 | 28 | 42 | 75 | 13 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 162 | 63 | | | | | | | | | | | 51 | 23 | 25 | 40 | 2 | 2 | 9 | 10 | | | | | | |
| Tetracyclines - Tetracycline | 2 | 162 | 127 | | | | | | | | | | 33 | 1 | 1 | 1 | 2 | 1 | 7 | 116 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 162 | 0 | | | | | | | | | | 75 | 67 | 17 | 3 | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 162 | 61 | | | | | | | | | | | 28 | 14 | 59 | 61 | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 162 | 120 | | | | | | | | | | | 20 | 15 | 7 | 1 | 2 | 1 | | 116 | | | | | | |
| Oxazolidinones - Linezolid | 4 | 162 | 0 | | | | | | | | | | | 28 | 134 | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 162 | 148 | | | | | | | | | | 2 | 12 | 9 | 52 | 75 | 8 | 4 | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. faecium* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| E. faecium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|---|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. faecalis* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| <i>E. faecalis</i> | <i>Gallus gallus</i> (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------------------|-----|-----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|-----|----|-----|-----|-----|----|----|-----|-----|-----|---------|------|------|
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Aminoglycosides - Gentamicin | 32 | 149 | 6 | | | | | | | | | | | | | 1 | 35 | 104 | 3 | 1 | 1 | | 4 | | | |
| Aminoglycosides - Streptomycin | 512 | 149 | 76 | | | | | | | | | | | | | | | 1 | 2 | 16 | 50 | 1 | 3 | | 76 | |
| Amphenicols - Chloramphenicol | 32 | 149 | 4 | | | | | | | | | | | | 1 | 11 | 131 | 2 | | 3 | 1 | | | | | |
| Amphenicols - Florfenicol | 8 | 149 | 0 | | | | | | | | | | | 3 | 28 | 117 | 1 | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 149 | 4 | | | | | | | | | | 19 | 105 | 9 | 12 | 1 | 2 | 1 | | | | | | | |
| Penicillins - Ampicillin | 4 | 149 | 10 | | | | | | | | | | | 111 | 24 | 4 | 4 | 1 | 2 | 1 | 2 | | | | | |
| Tetracyclines - Tetracycline | 2 | 149 | 129 | | | | | | | | | | 20 | | | | 1 | 1 | 35 | 92 | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 149 | 4 | | | | | | | | | | 3 | 90 | 46 | 6 | | | | 4 | | | | | | |
| Ionophores - Salinomycin | 4 | 149 | 21 | | | | | | | | | | 13 | 38 | 27 | 50 | 17 | | | 4 | | | | | | |
| Macrolides - Erythromycin | 4 | 149 | 108 | | | | | | | | | | | 22 | 17 | 2 | 2 | 3 | 4 | 1 | 98 | | | | | |
| Oxazolidines - Linezolid | 4 | 149 | 4 | | | | | | | | | | | 59 | 86 | | | | 4 | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 32 | 149 | 0 | | | | | | | | | 1 | | 3 | 2 | 8 | 42 | 82 | 11 | | | | | | | |

| <i>E. faecalis</i> | <i>Gallus gallus</i> (fowl) | |
|--|-----------------------------|---------|
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |

Table Antimicrobial susceptibility testing of *E. faecalis* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| E. faecalis | Gallus gallus (fowl) | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of Enterococcus spp., unspecified in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

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

| Enterococcus spp., unspecified | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|---|---------|---------|-------|-------|-------|------|------|------|------|-----|---|---|---|---|----|----|----|-----|-----|-----|-------|------|------|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Aminoglycosides - Gentamicin | 32 | 1 | 0 | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 1 | 0 | | | | | | | | | | | | | | | | | | 1 | | | | | |
| Amphenicols - Chloramphenicol | 32 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Amphenicols - Florfenicol | 8 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 1 | 0 | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 1 | 0 | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 1 | 0 | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Oxazolidines - Linezolid | 4 | 1 | 0 | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 1 | 1 | | | | | | | | | | | | | 1 | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *Enterococcus* spp., unspecified in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

| Enterococcus spp., unspecified | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. faecium* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

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

| E. faecium | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 58 | 0 | | | | | | | | | | | | | 5 | 42 | 11 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 58 | 11 | | | | | | | | | | | | | | | | 7 | 37 | 3 | 1 | | | | 10 | |
| Amphenicols - Chloramphenicol | 32 | 58 | 1 | | | | | | | | | | | | | 12 | 41 | 4 | | | 1 | | | | | | |
| Amphenicols - Florfenicol | 8 | 58 | 1 | | | | | | | | | | | | 6 | 51 | | | | 1 | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 58 | 2 | | | | | | | | | | 6 | 35 | 2 | 13 | 2 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 58 | 4 | | | | | | | | | | | 28 | 21 | 5 | 2 | | 1 | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 2 | 58 | 15 | | | | | | | | | | 41 | 1 | 1 | | | | 2 | 13 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 58 | 1 | | | | | | | | | | 30 | 24 | 3 | | | | | 1 | | | | | | | |
| Ionophores - Salinomycin | 4 | 58 | 2 | | | | | | | | | | | 23 | 31 | 2 | 1 | | | 1 | | | | | | | |
| Macrolides - Erythromycin | 4 | 58 | 14 | | | | | | | | | | | 19 | 10 | 15 | 2 | | 1 | | 11 | | | | | | |
| Oxazolidines - Linezolid | 4 | 58 | 1 | | | | | | | | | | | 1 | 54 | 2 | | | 1 | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 58 | 48 | | | | | | | | | | 1 | 9 | 6 | 38 | 2 | 1 | 1 | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. faecium* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

| <i>E. faecium</i> | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. faecalis* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

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

| E. faecalis Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Antimicrobials: | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aminoglycosides - Gentamicin | 32 | 28 | 2 | | | | | | | | | | | | 2 | 8 | 16 | | | 1 | | 1 | | | | |
| Aminoglycosides - Streptomycin | 512 | 28 | 17 | | | | | | | | | | | | | 1 | | | 4 | 5 | 1 | | | | 17 | |
| Amphenicols - Chloramphenicol | 32 | 28 | 5 | | | | | | | | | | | 1 | 9 | 13 | | | 5 | | | | | | | |
| Amphenicols - Florfenicol | 8 | 28 | 0 | | | | | | | | | | | 16 | 12 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 28 | 0 | | | | | | | | | 5 | 16 | 5 | 2 | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 28 | 2 | | | | | | | | | | | 23 | 3 | | | | | | 2 | | | | | |
| Tetracyclines - Tetracycline | 2 | 28 | 16 | | | | | | | | | | 11 | 1 | | 1 | | 1 | 1 | 13 | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 28 | 0 | | | | | | | | | | 4 | 17 | 6 | 1 | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 28 | 0 | | | | | | | | | | 6 | 13 | 5 | 4 | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 28 | 13 | | | | | | | | | | | 8 | 4 | 3 | 1 | | | 1 | 11 | | | | | |
| Oxazolidines - Linezolid | 4 | 28 | 0 | | | | | | | | | | 2 | 11 | 15 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 32 | 28 | 0 | | | | | | | | | 1 | | | 3 | 8 | 6 | 10 | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. faecalis* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

| E. faecalis | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. faecium* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| E. faecium | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-----|-----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|-----|-----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 121 | 2 | | | | | | | | | | | | | 9 | 78 | 28 | 4 | 1 | | 1 | | | | | |
| Aminoglycosides - Streptomycin | 128 | 121 | 32 | | | | | | | | | | | | | | 1 | 1 | 11 | 68 | 8 | 1 | 2 | | 29 | | |
| Amphenicols - Chloramphenicol | 32 | 121 | 2 | | | | | | | | | | | | 1 | 31 | 82 | 3 | 2 | | 2 | | | | | | |
| Amphenicols - Florfenicol | 8 | 121 | 2 | | | | | | | | | | | 1 | 17 | 101 | | | 1 | 1 | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 121 | 4 | | | | | | | | | | 26 | 58 | 20 | 13 | 3 | 1 | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 121 | 21 | | | | | | | | | | | 45 | 33 | 22 | 14 | 1 | 1 | | 5 | | | | | | |
| Tetracyclines - Tetracycline | 2 | 121 | 60 | | | | | | | | | | 56 | 3 | 2 | | | | | | 60 | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 121 | 5 | | | | | | | | | | 78 | 31 | 7 | | 1 | | | 4 | | | | | | | |
| Ionophores - Salinomycin | 4 | 121 | 6 | | | | | | | | | | 1 | 57 | 54 | 3 | 2 | | | 4 | | | | | | | |
| Macrolides - Erythromycin | 4 | 121 | 33 | | | | | | | | | | | 14 | 38 | 36 | 4 | 3 | 1 | | 25 | | | | | | |
| Oxazolidines - Linezolid | 4 | 121 | 4 | | | | | | | | | 1 | | | 116 | | | | 4 | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 121 | 109 | | | | | | | | | | 3 | 9 | 5 | 88 | 10 | 2 | 4 | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. faecium* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| E. faecium Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | |
|--|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. faecalis* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| E. faecalis | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|---|----|----|----|-----|-----|-----|-------|------|------|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Aminoglycosides - Gentamicin | 32 | 22 | 4 | | | | | | | | | | | | | | 5 | 13 | | | | | 4 | | | |
| Aminoglycosides - Streptomycin | 512 | 22 | 7 | | | | | | | | | | | | | | | | | 4 | 9 | 1 | 1 | | 7 | |
| Amphenicols - Chloramphenicol | 32 | 22 | 4 | | | | | | | | | | | | | 7 | 9 | 2 | | 1 | 3 | | | | | |
| Amphenicols - Florfenicol | 8 | 22 | 0 | | | | | | | | | | | 2 | 7 | 13 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 22 | 1 | | | | | | | | | | 6 | 11 | 3 | 1 | | | | | 1 | | | | | |
| Penicillins - Ampicillin | 4 | 22 | 0 | | | | | | | | | | | 18 | 4 | | | | | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 22 | 18 | | | | | | | | | | 4 | | | | | | | 1 | 17 | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 22 | 0 | | | | | | | | | | 3 | 14 | 5 | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 22 | 0 | | | | | | | | | | 2 | 11 | 9 | | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 22 | 14 | | | | | | | | | | | 6 | 2 | | 2 | | | | | 12 | | | | |
| Oxazolidines - Linezolid | 4 | 22 | 0 | | | | | | | | | | | 7 | 15 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 32 | 22 | 0 | | | | | | | | | | | | 1 | 5 | 1 | 12 | 3 | | | | | | | |

Table Antimicrobial susceptibility testing of *E. faecalis* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| <i>E. faecalis</i> | Pigs - breeding animals - raised under controlled housing conditions | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. durans* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

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

| E. durans | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 15 | 0 | | | | | | | | | | | | | | 9 | 6 | | | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 15 | 3 | | | | | | | | | | | | | | | | 1 | 8 | 3 | | | | | 3 | |
| Amphenicols - Chloramphenicol | 32 | 15 | 0 | | | | | | | | | | | | | 2 | 13 | | | | | | | | | | |
| Amphenicols - Florfenicol | 8 | 15 | 0 | | | | | | | | | | | | | 15 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 15 | 0 | | | | | | | | | | 5 | 8 | 1 | 1 | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 15 | 1 | | | | | | | | | | | 9 | 2 | 3 | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 15 | 5 | | | | | | | | | | 10 | | | | 1 | | | | 4 | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 15 | 0 | | | | | | | | | | 9 | 4 | 2 | | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 15 | 0 | | | | | | | | | | | 3 | 12 | | | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 15 | 4 | | | | | | | | | | | 5 | 2 | 4 | 3 | | | | | 1 | | | | | |
| Oxazolidines - Linezolid | 4 | 15 | 0 | | | | | | | | | | | | 14 | 1 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 15 | 12 | | | | | | | | | | 2 | 1 | | 10 | 1 | 1 | | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. durans* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data [Dilution method]

| E. durans Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | |
|---|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. hirae* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data

[Dilution method]

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

| E. hirae | Pigs - breeding animals - raised under controlled housing conditions | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 85 | 1 | | | | | | | | | | | | | 6 | 51 | 24 | 3 | | | 1 | | | | | |
| Aminoglycosides - Streptomycin | 128 | 85 | 23 | | | | | | | | | | | | | | | | 3 | 44 | 15 | 2 | 1 | | | 20 | |
| Amphenicols - Chloramphenicol | 32 | 85 | 2 | | | | | | | | | | | | | 49 | 30 | | 4 | | 2 | | | | | | |
| Amphenicols - Florfenicol | 8 | 85 | 2 | | | | | | | | | | | | 19 | 64 | | 1 | 1 | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 85 | 1 | | | | | | | | | | 64 | 12 | 6 | 2 | | 1 | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 85 | 9 | | | | | | | | | | | 58 | 11 | 7 | 6 | 1 | | | 2 | | | | | | |
| Tetracyclines - Tetracycline | 2 | 85 | 56 | | | | | | | | | | 27 | 1 | 1 | 1 | | 1 | 4 | 50 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 85 | 3 | | | | | | | | | | 55 | 25 | 2 | | | | | 3 | | | | | | | |
| Ionophores - Salinomycin | 4 | 85 | 3 | | | | | | | | | | 1 | 26 | 54 | 1 | | | | 3 | | | | | | | |
| Macrolides - Erythromycin | 4 | 85 | 26 | | | | | | | | | | | 56 | | 3 | 1 | | 1 | 2 | 22 | | | | | | |
| Oxazolidines - Linezolid | 4 | 85 | 3 | | | | | | | | | | | 5 | 75 | 2 | | | 3 | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 85 | 82 | | | | | | | | | | | 3 | 2 | 64 | 10 | 2 | 4 | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. hirae* in Pigs - breeding animals - raised under controlled housing conditions - quantitative data

[Dilution method]

| E. hirae Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Pigs - breeding animals - raised under controlled housing conditions | |
|--|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. faecium* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

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

| E. faecium | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|-----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Aminoglycosides - Gentamicin | 32 | 100 | 1 | | | | | | | | | | | | | 10 | 66 | 20 | 3 | | | | 1 | | | |
| Aminoglycosides - Streptomycin | 128 | 100 | 37 | | | | | | | | | | | | | | | 2 | 8 | 47 | 6 | 2 | 3 | | 32 | |
| Amphenicols - Chloramphenicol | 32 | 100 | 1 | | | | | | | | | | | | 2 | 33 | 56 | | 8 | 1 | | | | | | |
| Amphenicols - Florfenicol | 8 | 100 | 2 | | | | | | | | | | 2 | 21 | 75 | | | | | 2 | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 100 | 2 | | | | | | | | | | 9 | 40 | 21 | 28 | 1 | 1 | | | | | | | | |
| Penicillins - Ampicillin | 4 | 100 | 9 | | | | | | | | | | | 47 | 33 | 11 | 4 | 1 | 1 | 1 | 2 | | | | | |
| Tetracyclines - Tetracycline | 2 | 100 | 47 | | | | | | | | | | 52 | 1 | | 1 | | | | | 46 | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 100 | 1 | | | | | | | | | | 46 | 38 | 14 | 1 | | | | 1 | | | | | | |
| Ionophores - Salinomycin | 4 | 100 | 3 | | | | | | | | | | 2 | 44 | 49 | 2 | 3 | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 100 | 42 | | | | | | | | | | | 14 | 16 | 28 | 3 | 1 | 1 | | 37 | | | | | |
| Oxazolidines - Linezolid | 4 | 100 | 0 | | | | | | | | | | 1 | 12 | 84 | 3 | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 100 | 82 | | | | | | | | | | 3 | 15 | 7 | 60 | 15 | | | | | | | | | |

| E. faecium | Cattle (bovine animals) - mixed herds | |
|---|--|---------|
| Isolates out of a monitoring program (yes/no) | | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |

Table Antimicrobial susceptibility testing of *E. faecium* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| E. faecium | Cattle (bovine animals) - mixed herds | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | unknown | |
| | lowest | highest |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidinones - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. faecalis* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

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

| <i>E. faecalis</i> | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|--------|--------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤0.002 | ≤0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 58 | 4 | | | | | | | | | | | | | 4 | 25 | 25 | | | 1 | | 3 | | | | |
| Aminoglycosides - Streptomycin | 512 | 58 | 43 | | | | | | | | | | | | | | | 1 | 2 | 4 | 7 | 1 | | | | 43 | |
| Amphenicols - Chloramphenicol | 32 | 58 | 30 | | | | | | | | | | | | 1 | 5 | 20 | | 2 | 26 | 4 | | | | | | |
| Amphenicols - Florfenicol | 8 | 58 | 1 | | | | | | | | | | | 3 | 14 | 40 | | | 1 | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 58 | 3 | | | | | | | | | | 22 | 27 | 5 | 1 | | 1 | 2 | | | | | | | | |
| Penicillins - Ampicillin | 4 | 58 | 1 | | | | | | | | | | | 46 | 11 | | | 1 | | | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 58 | 52 | | | | | | | | | | 5 | 1 | | | | 1 | 1 | 50 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 58 | 1 | | | | | | | | | | 4 | 31 | 22 | | 1 | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 58 | 0 | | | | | | | | | | 14 | 36 | 6 | 2 | | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 58 | 48 | | | | | | | | | | | 6 | 4 | | | 1 | | | 47 | | | | | | |
| Oxazolidinones - Linezolid | 4 | 58 | 1 | | | | | | | | | 1 | 2 | 27 | 27 | | | 1 | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 32 | 58 | 0 | | | | | | | | | 1 | | 3 | 2 | 9 | 13 | 24 | 6 | | | | | | | | |

| <i>E. faecalis</i> | Cattle (bovine animals) - mixed herds | |
|------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |

Table Antimicrobial susceptibility testing of *E. faecalis* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| E. faecalis Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - mixed herds | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. durans* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| <i>E. durans</i> | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------------|----|---|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|----|---|---|----|----|----|-----|-----|-----|---------|------|------|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Aminoglycosides - Gentamicin | 32 | 10 | 0 | | | | | | | | | | | | | | 8 | 2 | | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 10 | 4 | | | | | | | | | | | | | | | | 2 | 3 | 1 | | | | | 4 |
| Amphenicols - Chloramphenicol | 32 | 10 | 1 | | | | | | | | | | | | | 1 | 8 | | | 1 | | | | | | |
| Amphenicols - Florfenicol | 8 | 10 | 0 | | | | | | | | | | | | 1 | 9 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 10 | 0 | | | | | | | | | | | 4 | 4 | 2 | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 10 | 3 | | | | | | | | | | | 3 | 3 | 1 | 1 | | 2 | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 10 | 4 | | | | | | | | | | 5 | | 1 | | | | | 4 | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 10 | 0 | | | | | | | | | | 8 | 2 | | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 10 | 0 | | | | | | | | | | | 6 | 4 | | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 10 | 5 | | | | | | | | | | | 1 | 3 | 1 | 1 | | | | 4 | | | | | |
| Oxazolidines - Linezolid | 4 | 10 | 0 | | | | | | | | | | | | 10 | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 10 | 7 | | | | | | | | | | 1 | 2 | | 7 | | | | | | | | | | |

| <i>E. durans</i> | Cattle (bovine animals) - mixed herds | |
|--|---------------------------------------|---------|
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |

Table Antimicrobial susceptibility testing of *E. durans* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| E. durans Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - mixed herds | |
|---|---------------------------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. hirae* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| <i>E. hirae</i> | Cattle (bovine animals) - mixed herds | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------------------------------------|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|---|----|----|---|----|----|----|-----|-----|-----|---------|------|------|
| | unknown | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 |
| Aminoglycosides - Gentamicin | 32 | 17 | 0 | | | | | | | | | | | | | 1 | 8 | 6 | 2 | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 17 | 5 | | | | | | | | | | | | | | | | 1 | 8 | 3 | | | | 5 | |
| Amphenicols - Chloramphenicol | 32 | 17 | 2 | | | | | | | | | | | | | 5 | 9 | | 1 | 2 | | | | | | |
| Amphenicols - Florfenicol | 8 | 17 | 1 | | | | | | | | | | | | 4 | 12 | | | 1 | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 17 | 1 | | | | | | | | | | 8 | 5 | 2 | 1 | | 1 | | | | | | | | |
| Penicillins - Ampicillin | 4 | 17 | 1 | | | | | | | | | | | 8 | 6 | 2 | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 2 | 17 | 7 | | | | | | | | | | 9 | 1 | | | | | 1 | 6 | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 17 | 1 | | | | | | | | | | 6 | 7 | 2 | 1 | | | | 1 | | | | | | |
| Ionophores - Salinomycin | 4 | 17 | 1 | | | | | | | | | | | 7 | 9 | | | | | 1 | | | | | | |
| Macrolides - Erythromycin | 4 | 17 | 7 | | | | | | | | | | | 7 | | 3 | | 1 | 1 | | 5 | | | | | |
| Oxazolidinones - Linezolid | 4 | 17 | 1 | | | | | | | | | | | 3 | 13 | | | | 1 | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 17 | 13 | | | | | | | | | | 2 | 2 | 2 | 8 | 1 | 1 | 1 | | | | | | | |

| <i>E. hirae</i> | Cattle (bovine animals) - mixed herds | |
|--|---------------------------------------|---------|
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |

Table Antimicrobial susceptibility testing of *E. hirae* in Cattle (bovine animals) - mixed herds - quantitative data [Dilution method]

| E. hirae Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - mixed herds | |
|--|---------------------------------------|---------|
| | | |
| | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. durans* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

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

| E. durans | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|---|----|----|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 14 | 1 | | | | | | | | | | | | | 2 | 5 | 6 | | 1 | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 14 | 2 | | | | | | | | | | | | | | | | 10 | 2 | 1 | | | | 1 | | |
| Amphenicols - Chloramphenicol | 32 | 14 | 0 | | | | | | | | | | | | | 7 | 7 | | | | | | | | | | |
| Amphenicols - Florfenicol | 8 | 14 | 0 | | | | | | | | | | | | 1 | 13 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 14 | 0 | | | | | | | | | | 8 | 3 | | 3 | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 14 | 1 | | | | | | | | | | | 9 | 3 | 1 | | | | | 1 | | | | | | |
| Tetracyclines - Tetracycline | 2 | 14 | 4 | | | | | | | | | | 10 | | | | | | | 4 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 14 | 0 | | | | | | | | | | 6 | 8 | | | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 14 | 0 | | | | | | | | | | | 5 | 9 | | | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 14 | 2 | | | | | | | | | | | 8 | 1 | 3 | | | | | 2 | | | | | | |
| Oxazolidines - Linezolid | 4 | 14 | 0 | | | | | | | | | | | 1 | 13 | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 14 | 10 | | | | | | | | | | 2 | 2 | 2 | 7 | 1 | | | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. durans* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

| E. durans | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. hirae* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

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

| E. hirae | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 61 | 1 | | | | | | | | | | | | | 2 | 15 | 38 | 5 | | | | 1 | | | | |
| Aminoglycosides - Streptomycin | 128 | 61 | 15 | | | | | | | | | | | | | | 1 | | 1 | 32 | 12 | 1 | 2 | | 12 | | |
| Amphenicols - Chloramphenicol | 32 | 61 | 1 | | | | | | | | | | | | | 34 | 21 | 4 | 1 | 1 | | | | | | | |
| Amphenicols - Florfenicol | 8 | 61 | 0 | | | | | | | | | | | | 16 | 45 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 61 | 1 | | | | | | | | | | 35 | 11 | 9 | 5 | | | 1 | | | | | | | | |
| Penicillins - Ampicillin | 4 | 61 | 5 | | | | | | | | | | | 49 | 7 | | 2 | | | | 3 | | | | | | |
| Tetracyclines - Tetracycline | 2 | 61 | 24 | | | | | | | | | | 36 | | 1 | 2 | 1 | | 3 | 18 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 61 | 5 | | | | | | | | | | 9 | 41 | 6 | | 2 | | | 3 | | | | | | | |
| Ionophores - Salinomycin | 4 | 61 | 6 | | | | | | | | | | | 34 | 18 | 3 | 3 | | | 3 | | | | | | | |
| Macrolides - Erythromycin | 4 | 61 | 20 | | | | | | | | | | | 35 | 3 | 3 | 1 | 1 | 1 | 2 | 15 | | | | | | |
| Oxazolidines - Linezolid | 4 | 61 | 3 | | | | | | | | | | | 5 | 52 | 1 | | | 3 | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 61 | 44 | | | | | | | | | | 12 | 5 | 3 | 27 | 6 | 4 | 4 | | | | | | | | |

Table Antimicrobial susceptibility testing of *E. hirae* in Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) - quantitative data [Dilution method]

| E. hirae Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Cattle (bovine animals) - calves (under or around 1 year) - veal calves (at or above 1 year) | |
|--|--|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Gentamicin | 4 | 512 |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. durans* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

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

| E. durans | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|---------|---------|-------|-------|-------|------|------|------|------|-----|----|----|---|---|----|----|----|-----|-----|-----|-------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | <=0.002 | <=0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 14 | 0 | | | | | | | | | | | | | 3 | 4 | 6 | 1 | | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 14 | 6 | | | | | | | | | | | | | | 1 | | 1 | 3 | 3 | 1 | | | | 5 | |
| Amphenicols - Chloramphenicol | 32 | 14 | 0 | | | | | | | | | | | | | 3 | 7 | 1 | 3 | | | | | | | | |
| Amphenicols - Florfenicol | 8 | 14 | 0 | | | | | | | | | | | 1 | 3 | 9 | 1 | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 14 | 0 | | | | | | | | | | 3 | 6 | 3 | 2 | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 14 | 2 | | | | | | | | | | | 5 | 3 | 4 | 2 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 14 | 13 | | | | | | | | | | 1 | | | | | | 1 | 12 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 14 | 0 | | | | | | | | | | 3 | 10 | 1 | | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 14 | 6 | | | | | | | | | | 1 | 1 | 2 | 4 | 6 | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 14 | 9 | | | | | | | | | | | 3 | 2 | | | | 2 | | 7 | | | | | | |
| Oxazolidines - Linezolid | 4 | 14 | 0 | | | | | | | | | | | 1 | 13 | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 14 | 14 | | | | | | | | | | | | 1 | 7 | 6 | | | | | | | | | | |

| E. durans | Gallus gallus (fowl) | |
|--|----------------------|---------|
| Isolates out of a monitoring program (yes/no) | | |
| Number of isolates available in the laboratory | unknown | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |

Table Antimicrobial susceptibility testing of *E. durans* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| E. durans Isolates out of a monitoring program (yes/no) Number of isolates available in the laboratory | Gallus gallus (fowl) | |
|--|----------------------|---------|
| | unknown | |
| | lowest | highest |
| Antimicrobials: | | |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidines - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Antimicrobial susceptibility testing of *E. hirae* in *Gallus gallus* (fowl) - quantitative data [Dilution method]Concentration ($\mu\text{g/ml}$), number of isolates with a concentration of inhibition equal to

| <i>E. hirae</i> | Gallus gallus (fowl) | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|----|----|--------------|--------------|-------|-------|-------|------|------|------|------|-----|----|----|----|----|----|----|----|-----|-----|-----|---------|------|------|--|
| | Isolates out of a monitoring program (yes/no) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Number of isolates available in the laboratory | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Antimicrobials: | Cut-off value | N | n | ≤ 0.002 | ≤ 0.004 | 0.008 | 0.015 | 0.016 | 0.03 | 0.06 | 0.12 | 0.25 | 0.5 | 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | >4096 | 1024 | 2048 | |
| Aminoglycosides - Gentamicin | 32 | 51 | 0 | | | | | | | | | | | | | 3 | 25 | 20 | 3 | | | | | | | | |
| Aminoglycosides - Streptomycin | 128 | 51 | 11 | | | | | | | | | | | | | | | | 4 | 23 | 13 | 1 | | | | 10 | |
| Amphenicols - Chloramphenicol | 32 | 51 | 1 | | | | | | | | | | | | | 28 | 16 | 1 | 5 | 1 | | | | | | | |
| Amphenicols - Florfenicol | 8 | 51 | 0 | | | | | | | | | | | | 27 | 24 | | | | | | | | | | | |
| Fluoroquinolones - Ciprofloxacin | 4 | 51 | 0 | | | | | | | | | | 20 | 6 | 18 | 7 | | | | | | | | | | | |
| Penicillins - Ampicillin | 4 | 51 | 1 | | | | | | | | | | | 39 | 7 | 4 | 1 | | | | | | | | | | |
| Tetracyclines - Tetracycline | 2 | 51 | 26 | | | | | | | | | | 23 | 2 | | | 2 | 3 | 1 | 20 | | | | | | | |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 4 | 51 | 0 | | | | | | | | | | 18 | 26 | 6 | 1 | | | | | | | | | | | |
| Ionophores - Salinomycin | 4 | 51 | 19 | | | | | | | | | | | 9 | 11 | 12 | 19 | | | | | | | | | | |
| Macrolides - Erythromycin | 4 | 51 | 20 | | | | | | | | | | | 25 | 6 | | 1 | 1 | | | | 18 | | | | | |
| Oxazolidines - Linezolid | 4 | 51 | 0 | | | | | | | | | | | 13 | 38 | | | | | | | | | | | | |
| Streptogramins - Quinupristin/Dalfopristin | 1 | 51 | 47 | | | | | | | | | | 1 | 3 | 4 | 34 | 9 | | | | | | | | | | |

| <i>E. hirae</i> | Gallus gallus (fowl) | |
|------------------------------|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Gentamicin | 4 | 512 |

Table Antimicrobial susceptibility testing of *E. hirae* in *Gallus gallus* (fowl) - quantitative data [Dilution method]

| <i>E. hirae</i> | Gallus gallus (fowl) | |
|--|--|---------|
| | Isolates out of a monitoring program (yes/no) | |
| | Number of isolates available in the laboratory | |
| Antimicrobials: | lowest | highest |
| Aminoglycosides - Streptomycin | 8 | 1024 |
| Amphenicols - Chloramphenicol | 1 | 128 |
| Amphenicols - Florfenicol | 1 | 64 |
| Fluoroquinolones - Ciprofloxacin | 0.5 | 64 |
| Penicillins - Ampicillin | 1 | 128 |
| Tetracyclines - Tetracycline | 0.5 | 64 |
| Glycopeptides (Cyclic peptides, Polypeptides) - Vancomycin | 0.5 | 64 |
| Ionophores - Salinomycin | 0.5 | 64 |
| Macrolides - Erythromycin | 1 | 128 |
| Oxazolidinones - Linezolid | 0.25 | 32 |
| Streptogramins - Quinupristin/Dalfopristin | 0.25 | 32 |

Table Cut-off values for antibiotic resistance of *E. faecalis* in Animals

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|---|---------------------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 32 | |
| | Streptomycin | | 512 | |
| Amphenicols | Chloramphenicol | | 32 | |
| Glycopeptides (Cyclic peptides, Polypeptides) | Vancomycin | | 4 | |
| Macrolides | Erythromycin | | 4 | |
| Oxazolidines | Linezolid | | 4 | |
| Penicillins | Ampicillin | | 4 | |
| Streptogramins | Quinupristin/Dalfopristin | | 32 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values for antibiotic resistance of *E. faecalis* in Feed

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|---|---------------------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 32 | |
| | Streptomycin | | 512 | |
| Amphenicols | Chloramphenicol | | 32 | |
| Glycopeptides (Cyclic peptides, Polypeptides) | Vancomycin | | 4 | |
| Macrolides | Erythromycin | | 4 | |
| Oxazolidines | Linezolid | | 4 | |
| Penicillins | Ampicillin | | 4 | |
| Streptogramins | Quinupristin/Dalfopristin | | 32 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values for antibiotic resistance of *E. faecalis* in Food

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|---|---------------------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 32 | |
| | Streptomycin | | 512 | |
| Amphenicols | Chloramphenicol | | 32 | |
| Glycopeptides (Cyclic peptides, Polypeptides) | Vancomycin | | 4 | |
| Macrolides | Erythromycin | | 4 | |
| Oxazolidines | Linezolid | | 4 | |
| Penicillins | Ampicillin | | 4 | |
| Streptogramins | Quinupristin/Dalfopristin | | 32 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values for antibiotic resistance of *E. faecium* in Animals

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|---|---------------------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 32 | |
| | Streptomycin | | 128 | |
| Amphenicols | Chloramphenicol | | 32 | |
| Glycopeptides (Cyclic peptides, Polypeptides) | Vancomycin | | 4 | |
| Macrolides | Erythromycin | | 4 | |
| Oxazolidines | Linezolid | | 4 | |
| Penicillins | Ampicillin | | 4 | |
| Streptogramins | Quinupristin/Dalfopristin | | 1 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values for antibiotic resistance of E. faecium in Feed

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|---|---------------------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 32 | |
| | Streptomycin | | 128 | |
| Amphenicols | Chloramphenicol | | 32 | |
| Glycopeptides (Cyclic peptides, Polypeptides) | Vancomycin | | 4 | |
| Macrolides | Erythromycin | | 4 | |
| Oxazolidines | Linezolid | | 4 | |
| Penicillins | Ampicillin | | 4 | |
| Streptogramins | Quinupristin/Dalfopristin | | 1 | |
| Tetracyclines | Tetracycline | | 2 | |

Table Cut-off values for antibiotic resistance of *E. faecium* in Food

| Test Method Used |
|------------------|
| |

| Standard methods used for testing |
|-----------------------------------|
| |

| | | | Concentration (microg/ml) | Zone diameter (mm) |
|---|---------------------------|----------|---------------------------|--------------------|
| | | Standard | Resistant > | Resistant <= |
| Aminoglycosides | Gentamicin | | 32 | |
| | Streptomycin | | 128 | |
| Amphenicols | Chloramphenicol | | 32 | |
| Glycopeptides (Cyclic peptides, Polypeptides) | Vancomycin | | 4 | |
| Macrolides | Erythromycin | | 4 | |
| Oxazolidines | Linezolid | | 4 | |
| Penicillins | Ampicillin | | 4 | |
| Streptogramins | Quinupristin/Dalfopristin | | 1 | |
| Tetracyclines | Tetracycline | | 2 | |

4. INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS

4.1 ENTEROBACTER SAKAZAKII

4.1.1 General evaluation of the national situation

4.1.2 Cronobacter in foodstuffs

A. Cronobacter in foodstuffs

Monitoring system

Sampling strategy

Tests for *Cronobacter sakazakii* were performed in foodstuff intended for special nutritional uses, infant formula and milk (prepared milk in bottles for infants and young children).

Frequency of the sampling

Samples are taken according to the national control program or in the frame of RASFF, complaints or suspicion.

Type of specimen taken

Foodstuff intended for special nutritional uses (infants), infant formula and milk (infants)

Methods of sampling (description of sampling techniques)

The samples were taken according to Regulation (EC) No 2073/2005.

Definition of positive finding

To determine the conformity of a sample or a batch, the criteria laid down in the Regulation (EC) No 2073/2005 are applied.

Diagnostic/analytical methods used

The method is used according to Regulation (EC) No 2073/2005.

Measures in case of the positive findings or single cases

Measures to be taken in the case of a non-compliant result:

- Notification of the producer or importer
- Possibility of a counter analysis
- Destruction of the non compliant batch or single sample
- Further investigation: additional sampling, possible recall, RASFF, ...

Table Cronobacter in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Cronobacter | Cronobacter sakazakii | Cronobacter spp, unspecified |
|--|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--------------------------------------|-----------------------|------------------------------|
| Infant formula - dried - at processing plant - Surveillance | TRA 171 | Objective sampling | Official sampling | food sample | Unknown | Batch | 10 g | 5 | 0 | 0 | 0 |
| Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - at retail - Surveillance | DIS 862 | Objective sampling | Official sampling | food sample | Unknown | Batch | 10 g | 146 | 0 | 0 | 0 |
| Milk from other animal species or unspecified - at hospital or care home - Surveillance (prepared milk in bottles for infants and young children) | DIS 839 | Objective sampling | Official sampling | food sample | Unknown | Batch | 10 ml | 110 | 0 | 0 | 0 |

4.2 HISTAMINE

4.2.1 General evaluation of the national situation

4.2.2 Histamine in foodstuffs

Table Histamine in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units in non-conformity | <= 100 mg/kg | >100 - <= 200 mg/kg |
|--|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|-------------------------------|--------------|---------------------|
| Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at processing plant - Surveillance | TRA 410 | Objective sampling | Official sampling | food sample | Unknown | Single | | 99 | 0 | 99 | 0 |
| Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at retail - Surveillance | DPA 139 | Objective sampling | Official sampling | food sample | Unknown | Single | | 9 | 0 | 9 | 0 |
| Fish - Fishery products which have undergone enzyme maturation treatment in brine - at processing plant - Surveillance | TRA 410 | Objective sampling | Official sampling | food sample | Unknown | Single | | 36 | 0 | 36 | 0 |
| Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at border control - Surveillance | IEC 007 | Objective sampling | Official sampling | food sample | Unknown | Single | | 72 | 0 | 69 | 3 |

Table Histamine in food

| | >200 - <= 400 mg/kg | > 400 mg/kg |
|--|------------------------|-------------|
| Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at processing plant - Surveillance | 0 | 0 |
| Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at retail - Surveillance | 0 | 0 |
| Fish - Fishery products which have undergone enzyme maturation treatment in brine - at processing plant - Surveillance | 0 | 0 |
| Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - at border control - Surveillance | 0 | 0 |

4.3 STAPHYLOCOCCAL ENTEROTOXINS

4.3.1 General evaluation of the national situation

4.3.2 Staphylococcal enterotoxins in foodstuffs

A. Staphylococcal enterotoxins in foodstuffs

Monitoring system

Sampling strategy

Tests of Staphylococcal enterotoxins were performed in samples with more than 10(6) cfu/g of Staphylococcus present.

Frequency of the sampling

Samples are taken according to the national control program or in the frame of RASFF, complaints or suspicion.

Type of specimen taken

Cheeses

Methods of sampling (description of sampling techniques)

The samples were taken according to Regulation (EC) No 2073/2005.

Definition of positive finding

To determine the conformity of a sample or a batch, the criteria laid down in the Regulation (EC)No 2073/2005 are applied.

Table Staphylococcal enterotoxins in food

| | Source of information | Sampling strategy | Sampler | Sample type | Sample origin | Sampling unit | Sample weight | Units tested | Total units positive for Staphylococcal enterotoxins |
|---|-----------------------|--------------------|-------------------|-------------|---------------|---------------|---------------|--------------|--|
| Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Unspecified | Official sampling | food sample | Unknown | Batch | 25 g | 1 | 0 |
| Cheeses made from goats' milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 2 | 0 |
| Cheeses made from sheep's milk - unspecified - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 1 | 0 |
| Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - at processing plant - Surveillance | TRA 133 | Objective sampling | Official sampling | food sample | Domestic | Batch | 25 g | 1 | 0 |

5. FOODBORNE

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

A. Foodborne outbreaks

System in place for identification, epidemiological investigations and reporting of foodborne outbreaks

In Belgium different authorities are dealing with food-borne outbreaks:

- The Federal Agency for the Safety of the Food chain FASFC deals with safety of foodstuffs, epidemiological investigation on foodstuffs and animal health issues in case of a food-borne outbreak.
- The Communities (Flemish, French and German speaking Community) are dealing with person related matters as human health and can start an epidemiological investigation by Public health medical inspectors in case of a food-borne outbreak.
- The Scientific Institute of Public Health IPH (National Reference Laboratory on Food-borne Outbreaks) analyses all suspected food samples, collects all data on food-borne outbreaks and gives scientific support to the FASFC officers and the Public Health Inspectors.

A national "Platform Food-borne outbreaks", approved by the National Conference of Ministers of Public Health, brings together the different competent authorities on food safety, animal health and public health. Furthermore in 2007, for a better communication, a protected web application was made available to exchange outbreak data and laboratory results in real time between the different authorities dealing with FBO. In this web-application a common file is created for each individual outbreak, and the data and laboratory results are shared between food inspectors and human health inspectors.

Data in this report came from the Federal Agency for the Safety of the Food Chain, the Public Health Inspection, the sentinel laboratories network for human microbiology, and the Federal Reference Centres for Food-borne outbreaks, for *Clostridium botulinum*, for *Salmonella* and *Shigella* and for *Listeria*.

Description of the types of outbreaks covered by the reporting:

A food-borne outbreak is defined as an incidence, observed under given circumstances, of two or more human cases of the same disease and/or infection, or a situation in which the observed number of human cases exceeds the expected number and where the cases are linked, or are probably linked, to the same food source (Directive 2003/99/EC, Article 2(d)). Data are collected from FASFC, the Flemish Community, the French community, the Brussels Common Community Committee, the sentinel laboratories network for human clinical microbiology, and the Federal Reference Centers for Food-borne outbreaks, *Salmonella* and *Shigella*, *Listeria* and *C. botulinum*.

The reporting includes both general and household outbreaks.

The causative agents covered are *Salmonella* spp., *Shigella* spp., *Campylobacter* spp., Verotoxigenic *E.coli*, *Listeria monocytogenes*, *Clostridium botulinum*, *Staphylococcus aureus*, *Bacillus cereus*, *Clostridium perfringens*, *Giardia*, Norovirus, enterotoxins of *Staphylococcus aureus* and *Bacillus cereus* and histamine

National evaluation of the reported outbreaks in the country:

Trends in numbers of outbreaks and numbers of human cases involved

During 2012, a total of 327 outbreaks of food-borne infections and intoxications were recorded in Belgium. More than 1469 people were ill, at least 59 persons were hospitalized and 1 person died. The number of reported outbreaks increased as compared to previous years, which might be due to an adapted Outbreak investigation procedure and the FASFC since 2011 and/or increased sensibility by consumers. The numbers of people involved are similar as in previous years which is also the case for the number of people hospitalized due to a collective food borne outbreak.

Relevance of the different causative agents, food categories and the agent/food category combinations

In 2012 in total 31 verified outbreaks were reported. In these outbreaks the causative agent was found in the implicated food and or it was clear by analytical epidemiology. All other outbreaks were classified as possible outbreaks where the agent was unknown or the agent could be only detected at human level. Norovirus was the most frequently detected food borne pathogen in nine food borne outbreaks and 94 persons became ill.

The second most reported agents were Salmonella and E. coli O157:H7 with each being at the origin of 6 and 3 outbreaks, respectively. In total 30 persons became ill and 19 were hospitalized due to E. coli O157:H7. Consumption of raw bovine meat was at the origin of these outbreaks. Twenty-six disseminated cases of Salmonella Stanley were reported in different regions of the country. In the other 4 outbreaks, 12 persons became ill and 3 of them were hospitalized. Salmonella was also isolated in a co-infection with Campylobacter, where 2 cases were reported.

Histamine was responsible for 4 outbreaks causing 28 ill people and 2 hospitalizations. High levels of histamine were quantified in tuna fish.

In 1 outbreak, an enterotoxin producing Bacillus cereus could be confirmed in the food and in another outbreak the emetic toxin producing strain could be isolated, which corresponds with the rapid onset of the vomiting symptoms observed in the patients. In the latter outbreak, 20 out of 22 children became ill after the consumption of rice which was contaminated with high levels of Bacillus cereus and its emetic toxin. For one outbreak, enterotoxin producing Bacillus cereus was isolated from nutmeg whereas enterotoxin A producing Staphylococcus aureus could be isolated from sausages. Enterotoxin A producing Staphylococcus aureus was also detected in 3 other outbreaks. For one of those outbreaks 30 human cases were reported and enterotoxin producing Clostridium perfringens was isolated from a human case.

Diarrheic Shellfish poisoning (DSP) was at the origin of 2 outbreaks resulting in 110 ill and was due to the consumption of contaminated mussels.

Thermotolerant Campylobacter was detected in a single outbreak.

In 90% of the outbreaks (N=295 out of 327) no causative agent could be identified. An important reason for this is the absence of leftovers of the suspected meal in most of those outbreaks and late reporting by the consumer. Only in 40% (N=132 out of 327) of the outbreaks, samples (human and/or food) were sent for analysis of which 24% (N=32) resulted in the detection of a causative pathogen. Some of the latter outbreaks have been categorized as a weak evidence outbreak.

Most food-borne outbreaks (31%) were due to the consumption of meals composed of different ingredients. Meat and meat based products were responsible for 17 % of the outbreaks. In 4.2% of the outbreaks the suspected food was unknown.

Relevance of the different type of places of food production and preparation in outbreaks

Restaurants and take away or fast food outlets were the most important location of exposure, being the setting of 63,9 % and 8,5 %, respectively, of food-borne outbreaks in Belgium in 2012. Catering at work or institutional catering are reported in respectively 3,3 % and 0,6 % of the food-borne outbreaks. 16,7 % of the outbreaks happened at home.

Descriptions of single outbreaks of special interest

An outbreak of bloody diarrhoea and hemolytic-uremic syndrome (HUS) caused by Escherichia coli O157:

H7 (vt1 vt2 eae positive) occurred in North-East Limburg, Belgium, in June 2012. As of the 4th of July, the outbreak involved 24 cases of which 17 were laboratory-confirmed. Four patients developed HUS, two children and two middle-aged women. The source of the outbreak could be traced back to the slaughterhouse by sampling, exploratory interviews and a case-control study. The patients were most frequently infected through the consumption of raw bovine meat products such as “steak tartare”.

In a children garten, 20 out of 22 children started vomiting within 30 minutes after the consumption of rice with cucumber and chicory. The rice was stored for 24 hours before preparation of the meal. High levels of *Bacillus cereus* (10^7 cfu/g) positive for the gene encoding the emetic toxin could be isolated from leftovers of the meal. Interestingly, the level of cereulide was quantified using LC-MS and was between 0.35-4.2 µg/g.

Control measures or other actions taken to improve the situation

Logistic slaughtering is applied for poultry which means that poultry with a Salmonella-free certificate are slaughtered before other poultry. The vaccination of laying hens against salmonellosis, started in 2003 and is mandatory for *Salmonella enteritidis* and is strongly recommended for *Salmonella typhimurium*.

Table Foodborne Outbreaks: summarised data

| | Weak evidence or no vehicle outbreaks | | | Strong evidence Number of Outbreaks | Total number of outbreaks | |
|---|---------------------------------------|-------------|--------------|-------------------------------------|---------------------------|--------|
| | Number of outbreaks | Human cases | Hospitalized | | | Deaths |
| Salmonella - S. Typhimurium | 0 | unknown | unknown | unknown | 0 | 0 |
| Salmonella - S. Enteritidis | 0 | unknown | unknown | unknown | 2 | 2 |
| Salmonella - Other serovars | 0 | unknown | unknown | unknown | 4 | 4 |
| Campylobacter | 0 | 0 | 0 | 0 | 1 | 1 |
| Listeria - Listeria monocytogenes | 0 | unknown | unknown | unknown | 0 | 0 |
| Listeria - Other Listeria | 0 | unknown | unknown | unknown | 0 | 0 |
| Yersinia | 0 | unknown | unknown | unknown | 0 | 0 |
| Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC) | 0 | unknown | unknown | unknown | 3 | 3 |
| Bacillus - B. cereus | 1 | 3 | 0 | 0 | 2 | 3 |
| Bacillus - Other Bacillus | 0 | unknown | unknown | unknown | 0 | 0 |
| Staphylococcal enterotoxins | 0 | unknown | unknown | unknown | 4 | 4 |
| Clostridium - Cl. botulinum | 0 | unknown | unknown | unknown | 0 | 0 |
| Clostridium - Cl. perfringens | 0 | unknown | unknown | unknown | 0 | 0 |

| | Weak evidence or no vehicle outbreaks | | | | Strong evidence Number of Outbreaks | Total number of outbreaks |
|---|---------------------------------------|-------------|--------------|---------|-------------------------------------|---------------------------|
| | Number of outbreaks | Human cases | Hospitalized | Deaths | | |
| Clostridium - Other Clostridia | 0 | unknown | unknown | unknown | 0 | 0 |
| Other Bacterial agents - Brucella | 0 | unknown | unknown | unknown | 0 | 0 |
| Other Bacterial agents - Shigella | 0 | unknown | unknown | unknown | 0 | 0 |
| Other Bacterial agents - Other Bacterial agents | 0 | unknown | unknown | unknown | 0 | 0 |
| Parasites - Trichinella | 0 | unknown | unknown | unknown | 0 | 0 |
| Parasites - Giardia | 0 | unknown | unknown | unknown | 0 | 0 |
| Parasites - Cryptosporidium | 0 | unknown | unknown | unknown | 0 | 0 |
| Parasites - Anisakis | 0 | unknown | unknown | unknown | 0 | 0 |
| Parasites - Other Parasites | 0 | unknown | unknown | unknown | 0 | 0 |
| Viruses - Norovirus | 0 | unknown | unknown | unknown | 9 | 9 |
| Viruses - Hepatitis viruses | 0 | unknown | unknown | unknown | 0 | 0 |
| Viruses - Other Viruses | 0 | unknown | unknown | unknown | 0 | 0 |
| Other agents - Histamine | 0 | unknown | unknown | unknown | 4 | 4 |
| Other agents - Marine biotoxins | 0 | unknown | unknown | unknown | 2 | 2 |
| Other agents - Other Agents | 0 | unknown | unknown | unknown | 0 | 0 |

Unknown agent

| Weak evidence or no vehicle outbreaks | | | | | |
|---------------------------------------|-------------|--------------|--------|-------------------------------------|---------------------------|
| Number of outbreaks | Human cases | Hospitalized | Deaths | Strong evidence Number of Outbreaks | Total number of outbreaks |
| 295 | 1101 | 30 | 1 | 0 | 295 |

Table Foodborne Outbreaks: detailed data for Bacillus

Please use CTRL for multiple selection fields

B. cereus

Value

| | |
|-------------------------------|--|
| FBO Code | ID1300 |
| Number of outbreaks | 1 |
| Number of human cases | 20 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Cereal products including rice and seeds/pulses (nuts, almonds) |
| More food vehicle information | rice mixed with cucumber |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans |
| Outbreak type | General |
| Setting | School, kindergarten |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Storage time/temperature abuse |
| Mixed Outbreaks (Other Agent) | |
| Additional information | cereulide toxin levels between 0.35-4.2 µg/g |

B. cereus

Value

| | |
|-------------------------------|--|
| FBO Code | ID1175 |
| Number of outbreaks | 1 |
| Number of human cases | 4 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Fish and fish products |
| More food vehicle information | served with pasta |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | Household / domestic kitchen |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | pasta was not send for analysis but might have cross-contaminated the fish. Bacillus cereus tested positive for enterotoxins. |

Table Foodborne Outbreaks: detailed data for Campylobacter

Please use CTRL for multiple selection fields

Campylobacter spp., unspecified

Value

| | |
|-------------------------------|---|
| FBO Code | ID1190 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Other, mixed or unspecified poultry meat and products thereof |
| More food vehicle information | chinese meal |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Take-away or fast-food outlet |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unprocessed contaminated ingredient |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Table Foodborne Outbreaks: detailed data for Escherichia coli, pathogenic

Please use CTRL for multiple selection fields

Verotoxigenic E. coli (VTEC) - VTEC O157:H7 - eae positive vtx1 and vtx2 positive

Value

| | |
|-------------------------------|-------------------------------------|
| FBO Code | ID1227 |
| Number of outbreaks | 1 |
| Number of human cases | 3 |
| Number of hospitalisations | 1 |
| Number of deaths | 0 |
| Food vehicle | Bovine meat and products thereof |
| More food vehicle information | |
| Nature of evidence | Analytical epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Slaughterhouse |
| Origin of food vehicle | Domestic |
| Contributory factors | Unprocessed contaminated ingredient |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Verotoxigenic E. coli (VTEC) - VTEC O157:H7

Value

| | |
|-------------------------------|--|
| FBO Code | ID1226 |
| Number of outbreaks | 1 |
| Number of human cases | 25 |
| Number of hospitalisations | 16 |
| Number of deaths | 0 |
| Food vehicle | Bovine meat and products thereof |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans |
| Outbreak type | General |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Slaughterhouse |
| Origin of food vehicle | Domestic |
| Contributory factors | Unprocessed contaminated ingredient |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Verotoxigenic E. coli (VTEC) - VTEC O157:H7 - eae positive vtx1 and vtx2 positive

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1104 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 2 |
| Number of deaths | 0 |
| Food vehicle | Bovine meat and products thereof |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | General |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Table Foodborne Outbreaks: detailed data for Other agents

Please use CTRL for multiple selection fields

Histamine

Value

| | |
|-------------------------------|--|
| FBO Code | ID1262 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 2 |
| Number of deaths | 0 |
| Food vehicle | Fish and fish products |
| More food vehicle information | tuna fish |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | General |
| Setting | Temporary mass catering (fairs, festivals) |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unprocessed contaminated ingredient |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Histamine

Value

| | |
|-------------------------------|--|
| FBO Code | ID1213 |
| Number of outbreaks | 1 |
| Number of human cases | 4 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Fish and fish products |
| More food vehicle information | tuna fish |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | General |
| Setting | Canteen or workplace catering |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unprocessed contaminated ingredient |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Marine biotoxins - okadaic acid

Value

| | |
|-------------------------------|--|
| FBO Code | ID1347 |
| Number of outbreaks | 1 |
| Number of human cases | 5 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Crustaceans, shellfish, molluscs and products thereof |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | Household / domestic kitchen |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | same batch of mussels as ID1346 |

Marine biotoxins - okadaic acid

Value

| | |
|-------------------------------|--|
| FBO Code | ID1346 |
| Number of outbreaks | 1 |
| Number of human cases | 105 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Crustaceans, shellfish, molluscs and products thereof |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | General |
| Setting | Residential institution (nursing home, prison, boarding school) |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Histamine

Value

| | |
|-------------------------------|--|
| FBO Code | ID1237 |
| Number of outbreaks | 1 |
| Number of human cases | 20 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Fish and fish products |
| More food vehicle information | tuna fish |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | General |
| Setting | Canteen or workplace catering |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unprocessed contaminated ingredient |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Histamine

Value

| | |
|-------------------------------|--|
| FBO Code | ID1182 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Fish and fish products |
| More food vehicle information | tuna fish |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | Household / domestic kitchen |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unprocessed contaminated ingredient |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Table Foodborne Outbreaks: detailed data for Salmonella

Please use CTRL for multiple selection fields

S. Enteritidis

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1298 |
| Number of outbreaks | 1 |
| Number of human cases | 3 |
| Number of hospitalisations | 1 |
| Number of deaths | 0 |
| Food vehicle | Bovine meat and products thereof |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Salmonella spp., unspecified

Value

| | |
|-------------------------------|--|
| FBO Code | ID1359 |
| Number of outbreaks | 1 |
| Number of human cases | 5 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Other or mixed red meat and products thereof |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Take-away or fast-food outlet |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

S. Enteritidis

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1285 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 2 |
| Number of deaths | 0 |
| Food vehicle | Bovine meat and products thereof |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

S. Weltevreden

Value

| | |
|-------------------------------|--|
| FBO Code | ID1339 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Crustaceans, shellfish, molluscs and products thereof |
| More food vehicle information | crustaceans in pasta |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | Household / domestic kitchen |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | campylobacter spp |
| Additional information | |

S. Schwarzengrund

Value

| | |
|-------------------------------|--|
| FBO Code | ID1910 |
| Number of outbreaks | 1 |
| Number of human cases | 5 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Broiler meat (<i>Gallus gallus</i>) and products thereof |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | General |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | ' <i>Salmonella</i> ' spp not specified detected in human |

S. Stanley

Value

| | |
|-------------------------------|--|
| FBO Code | ID1315 |
| Number of outbreaks | 1 |
| Number of human cases | 26 |
| Number of hospitalisations | unknown |
| Number of deaths | 0 |
| Food vehicle | Turkey meat and products thereof |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food chain or its environment - Detection of indistinguishable causative agent in humans |
| Outbreak type | General |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Table Foodborne Outbreaks: detailed data for Staphylococcal enterotoxins

Please use CTRL for multiple selection fields

Enterotoxin A

Value

| | |
|-------------------------------|---|
| FBO Code | ID1118 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Broiler meat (Gallus gallus) and products thereof |
| More food vehicle information | sausages |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Enterotoxin B

Value

| | |
|-------------------------------|--|
| FBO Code | ID1202 |
| Number of outbreaks | 1 |
| Number of human cases | 30 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Buffet meals |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | General |
| Setting | Canteen or workplace catering |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | enterotoxin Clostridium perfringens |
| Additional information | C. perfringens isolated from human case |

Enterotoxin A

Value

| | |
|-------------------------------|--|
| FBO Code | ID1151 |
| Number of outbreaks | 1 |
| Number of human cases | 4 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Bovine meat and products thereof |
| More food vehicle information | sausages |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | Household / domestic kitchen |
| Setting | Household / domestic kitchen |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | enterotoxin producing <i>Bacillus cereus</i> |
| Additional information | nutmeg used in mashed potatoes was contaminated with <i>bacillus cereus</i> |

Enterotoxin A

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1348 |
| Number of outbreaks | 1 |
| Number of human cases | 3 |
| Number of hospitalisations | 1 |
| Number of deaths | 0 |
| Food vehicle | Mixed food |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | General |
| Setting | School, kindergarten |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Table Foodborne Outbreaks: detailed data for Viruses

Please use CTRL for multiple selection fields

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--|
| FBO Code | ID1345 |
| Number of outbreaks | 1 |
| Number of human cases | 13 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Mixed food |
| More food vehicle information | sandwich with steak tartare and fresh vegetables |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | General |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--|
| FBO Code | ID1389 |
| Number of outbreaks | 1 |
| Number of human cases | 4 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Mixed food |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans |
| Outbreak type | General |
| Setting | Hospital/medical care facility |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | Norovirus GII |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1752 |
| Number of outbreaks | 1 |
| Number of human cases | 4 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Mixed food |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1217 |
| Number of outbreaks | 1 |
| Number of human cases | 45 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Mixed food |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | General |
| Setting | Other setting |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | setting: recreation place |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1363 |
| Number of outbreaks | 1 |
| Number of human cases | 13 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Mixed food |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | General |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--------------------------------------|
| FBO Code | ID1177 |
| Number of outbreaks | 1 |
| Number of human cases | 16 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Buffet meals |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | General |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--|
| FBO Code | ID1386 |
| Number of outbreaks | 1 |
| Number of human cases | 9 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Vegetables and juices and other products thereof |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | General |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | Norovirus GII |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|--|
| FBO Code | ID1372 |
| Number of outbreaks | 1 |
| Number of human cases | 2 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Crustaceans, shellfish, molluscs and products thereof |
| More food vehicle information | |
| Nature of evidence | Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent |
| Outbreak type | Household / domestic kitchen |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | Norovirus GII |

Calicivirus - norovirus (Norwalk-like virus)

Value

| | |
|-------------------------------|---|
| FBO Code | ID1141 |
| Number of outbreaks | 1 |
| Number of human cases | 4 |
| Number of hospitalisations | 0 |
| Number of deaths | 0 |
| Food vehicle | Crustaceans, shellfish, molluscs and products thereof |
| More food vehicle information | |
| Nature of evidence | Descriptive epidemiological evidence |
| Outbreak type | Household / domestic kitchen |
| Setting | Restaurant, Cafe, Pub, Bar, Hotel |
| Place of origin of problem | Unknown |
| Origin of food vehicle | Unknown |
| Contributory factors | Unknown |
| Mixed Outbreaks (Other Agent) | |
| Additional information | |