

Luxembourg

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

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

IN 2015

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 Luxembourg during the year 2015.

The information covers the occurrence of these diseases and agents in animals, foodstuffs and in some cases also in feedingstuffs. In addition the report includes data on antimicrobial resistance in some zoonotic agents and indicator 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 Union 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 European Union 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 European Union Summary Reports on zoonoses and antimicrobial resistance that are published each year by EFSA.

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

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1 DISEASE STATUS

1.1 TUBERCULOSIS, MYCOBACTERIAL DISEASES

1.1.1 Mycobacterium in animals

1.1.1.1 Mycobacterium in animal - Cattle (bovine animals)

Status as officially free of bovine tuberculosis during the reporting year

The entire country free

Luxembourg is officially free from bovine tuberculosis by decision 97/76/CE and confirmed by decision 2003/467/CE.

Monitoring system

Sampling strategy

Systematic inspection post mortem at slaughter. In case of suspected TB lesions, tissue samples are sent to the National Reference Laboratory for additional analysis to confirm the suspicion. Isolation of *M. bovis* and typing is performed at the National Reference Laboratory CODA-CERVA.

Type of specimen taken

Organs/tissues : lesions, lymph nodes, lungs, blood

Vaccination policy

Vaccination is prohibited.

1.2 BRUCELLOSIS

1.2.1 Brucella in animals

1.2.1.1 Brucella in animal - Cattle (bovine animals)

Status as officially free of bovine brucellosis during the reporting year

The entire country free

Luxembourg is officially free from bovine brucellosis by decision 97/76/CE and confirmed by decision 2003/467/CE

Additional information

Regular surveillance by control of bulk tank milk all over the country.

Monitoring system

Type of specimen taken

Blood and tankmilk .

Case definition

An animal is defined as infected if *Brucella* spp. has been isolated by culture and identified . A herd is defined as infected if one of its animals is positive by bacteriological examination for Brucellosis.

Vaccination policy

Vaccination is prohibited.

2 INFORMATION ON SPECIFIC ZONOSSES AND ZONOTIC 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 Salmonella in animals

2.1.1.1 Salmonella in animal - Gallus gallus (fowl) - broilers

Monitoring system

Sampling strategy

Broiler flocks

The official surveillance program for broilers in accordance with Regulations (EC) Nos 2160/2003 and 200/2012 started in 2009. It is compulsory to sample all flocks on farms with a capacity of 200 or more birds in the last three weeks before slaughter.

Frequency of the sampling

Broiler flocks: Before slaughter at farm

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

Type of specimen taken

Broiler flocks: Before slaughter at farm

Socks/ boot swabs

Methods of sampling (description of sampling techniques)

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.

Case definition

Broiler flocks: Before slaughter at farm

A sample is considered positive if a *Salmonella enteritidis* or *typhimurium* is isolated. A flock is considered positive as soon as one sample is positive.

Diagnostic/analytical methods used

Broiler flocks: Before slaughter at farm

Bacteriological method: ISO 6579:2002 annex D in accordance with regulation (EU) nr. 200/2012.

Vaccination policy

Broiler flocks

There is no vaccination policy for broiler flocks.

2.1.1.2 *Salmonella* in *Gallus gallus* (fowl) - laying hens - breeding flocks for egg production and flocks of laying hens

Monitoring system

Sampling strategy

All laying hen flocks on farms with at least 200 laying hens are under the *Salmonella* control programme. Flocks are sampled by the owner every 15 weeks during the laying phase.

Frequency of the sampling

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

Every 15 weeks.

Type of specimen taken

Laying hens: Production period

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

Methods of sampling (description of sampling techniques)

Laying hens: Production period

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

Case definition

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.

Diagnostic/analytical methods used

Laying hens: Production period

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

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.

2.2 TRICHINELLOSIS

2.2.1 *Trichinella* in animals

2.2.1.1 *Trichinella* in animal - Pigs

Monitoring system

Sampling strategy

General

Permanent surveillance of all slaughtered pigs at the slaughterhouses in implementation of Commission Regulation (EC) No 2075/2005.

Frequency of the sampling

General

Systematic *Trichinella* examinations of all slaughtered pigs.

Type of specimen taken

General

Diaphragm muscle, 1 gram for fattening pigs, 2 grams for sows and boars.

Case definition

General

An animal is considered positive in case of detection and identification of *Trichinella* larvae in the muscle sample.

Diagnostic/analytical methods used

General

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 modified by Regulation (UE) N2015/1375, reference method, 1 gram per fattening pig, 2 grams per sow and boar, and 5 grams per horse and wild .

Control program/mechanisms

The control program/strategies in place

Commission Regulation (EC) No 2075/2005 modified by Regulation (UE) N2015/1375 imposes systematic *Trichinella* examination of all slaughtered pigs, horses and wild boar and other wildlife animals by artificial digestion method of muscle before marketing.

Notification system in place

No positive cases were found in 2015.

3 ANTIMICROBIAL RESISTANCE INFORMATION ON SPECIFIC ZONOSSES AND ZONOTIC AGENTS

3.1 SALMONELLOSIS

3.1.1 Salmonella in animals

3.1.1.1 Antimicrobial resistance in Salmonella Cattle (bovine animals)

Sampling strategy used in monitoring

Frequency of the sampling

No specific antimicrobial resistance testing on Salmonella in cattle during 2015.

3.1.1.2 Antimicrobial resistance in Salmonella Pigs

Description of sampling designs

For pigs : Isolate from a monitoring program with random sampling of healthy animals

Sampling strategy used in monitoring

Frequency of the sampling

Antimicrobial resistance testing on Salmonella in pigs during 2015 (point 2,1,3; 2,1,4 and 2,1,5 Ch 2 annex I Regulation (CE) N2073/2005).
No Salmonella detected in 2015 on carcasses swabs

Methods of sampling (description of sampling techniques)

For pigs : Sampling at slaughterhouse on carcasses (swabs)

Procedures for the selection of isolates for antimicrobial testing

Swabs samples from pig carcasses were cultured for Salmonella . Caeca samples from pigs were cultured for Campylobacter jejuni and Campylobacter coli and ESBL .

3.2 CAMPYLOBACTERIOSIS

3.2.1 Campylobacter in animals

3.2.1.1 Antimicrobial resistance in Campylobacter Poultry, unspecified

Sampling strategy used in monitoring

Frequency of the sampling

No specific antimicrobial resistance testing on Salmonella and Campylobacter in poultry during 2015.

3.3 ESCHERICHIA COLI, NON-PATHOGENIC

3.3.1 Escherichia coli, non-pathogenic in foodstuffs

3.3.1.1 Antimicrobial resistance in Escherichia coli, non-pathogenic

Description of sampling designs

Random sampling at retail and processing plant. Sampling from beef and pork meat.

3.3.2 Escherichia coli, non-pathogenic in animals

3.3.2.1 Antimicrobial resistance in Escherichia coli, non-pathogenic Pigs

Sampling strategy used in monitoring

Type of specimen taken

For pigs : At slaughterhouse : Sampling on caeca

ANIMAL POPULATION TABLES

Table Susceptible animal population

Animal species	Category of animals	Population	
		animal	herd/flock
Cattle (bovine animals)	Cattle (bovine animals)	201,036	1,290
Gallus gallus (fowl)	Gallus gallus (fowl) - broilers	17,988	
	Gallus gallus (fowl) - laying hens	95,287	
Goats	Goats	4,772	
Pigs	Pigs	95,337	
Sheep	Sheep	9,453	

DISEASE STATUS TABLES

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

Region	Number of herds with status officially free	Number of infected herds	Total number of herds
LUXEMBOURG	1,290	0	1,290

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

Region	Number of herds with status officially free	Number of infected herds	Total number of herds
LUXEMBOURG	353	0	353

DISEASE STATUS TABLES

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

Region	Number of herds with status officially free	Number of infected herds	Total number of herds
LUXEMBOURG	1,290	0	1,290

PREVALENCE TABLES

Table CAMPYLOBACTER in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cattle (bovine animals) - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal	59	17	Campylobacter hyointestinalis	3
					Campylobacter jejuni	11
					Campylobacter, unspecified sp.	3
	Gallus gallus (fowl) - Farm - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	herd/flock	10	8	Campylobacter coli	8
	Goats - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal	1	0	Campylobacter, unspecified sp.	0
	Pigs - Farm - Not Available - Not Available - Monitoring - Official sampling - Selective sampling	animal	136	112	Campylobacter coli	103
					Campylobacter, unspecified sp.	9
	Sheep - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal	1	0	Campylobacter, unspecified sp.	0

Table CAMPYLOBACTER in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	16	9	Campylobacter coli	2
							Campylobacter jejuni	7
	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - chilled - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	8	3	Campylobacter coli	3
	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	10	5	Campylobacter coli	1
							Campylobacter jejuni	4
	Meat from broilers (Gallus gallus) - minced meat - intended to be eaten cooked - chilled - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	3	3	Campylobacter coli	1
							Campylobacter jejuni	2
	Meat from poultry, unspecified - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	23	5	Campylobacter jejuni	4
							Campylobacter, unspecified sp.	1
	Meat from turkey - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	2	1	Campylobacter jejuni	1
	Meat from turkey - minced meat - intended to be eaten cooked - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	2	1	Campylobacter coli	1
	Meat, mixed meat - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	10	Gram	2	2	Campylobacter jejuni	2

Table ECHINOCOCCUS in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cattle (bovine animals) - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	24831	0	Echinococcus	0
	Foxes - wild - Natural habitat - Not Available - animal sample - organ/tissue - Monitoring - Official sampling - Selective sampling	animal	26	7	Echinococcus, unspecified sp.	7
	Pigs - fattening pigs - raised under controlled housing conditions - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	163234	0	Echinococcus	0

Table ESCHERICHIA COLI in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Meat from bovine animals - fresh - chilled - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	3	0	VTEC O157	0
	Meat from bovine animals - meat preparation - intended to be eaten cooked - chilled - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	24	0	VTEC O157	0
	Meat from bovine animals - minced meat - intended to be eaten raw - chilled - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	50	0	VTEC O157	0
	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	3	0	VTEC O157	0
	Meat from bovine animals and pig - minced meat - intended to be eaten raw - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	9	0	VTEC O157	0
	Meat from broilers (Gallus gallus) - minced meat - intended to be eaten cooked - chilled - Retail - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	40	0	VTEC O157	0
	Meat, mixed meat - meat preparation - intended to be eaten cooked - chilled - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	4	0	VTEC O157	0

Table LISTERIA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cattle (bovine animals) - Unspecified - Luxembourg - animal sample - milk - Clinical investigations - Not applicable - Suspect sampling	animal	156	1	Listeria monocytogenes	1

Table LISTERIA in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
Not Available	Fishery products, unspecified - cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	10	0	<= 100	Listeria monocytogenes	10	0
							>100	Listeria monocytogenes	10	0
	Fishery products, unspecified - cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	10	0	Not Available	Listeria monocytogenes	10	0
	Meat from bovine animals - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	40	5	<= 100	Listeria monocytogenes	40	0
							>100	Listeria monocytogenes	40	0
	Meat from bovine animals - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	40	5	Not Available	Listeria monocytogenes	40	5
	Meat from bovine animals - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	35	5	<= 100	Listeria monocytogenes	35	0
							>100	Listeria monocytogenes	35	0
	Meat from bovine animals - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	35	5	Not Available	Listeria monocytogenes	35	5
	Meat from bovine animals - minced meat - intended to be eaten cooked - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	41	5	<= 100	Listeria monocytogenes	41	0
							>100	Listeria monocytogenes	41	0
	Meat from bovine animals - minced meat - intended to be eaten cooked - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	41	5	Not Available	Listeria monocytogenes	41	5
	Meat from bovine animals - minced meat - intended to be eaten raw - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	149	11	<= 100	Listeria monocytogenes	149	2
							>100	Listeria monocytogenes	149	0
	Meat from bovine animals - minced meat - intended to be eaten raw - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	149	11	Not Available	Listeria monocytogenes	149	11
	Meat from bovine animals and pig - meat products - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	19	2	<= 100	Listeria monocytogenes	19	0
							>100	Listeria monocytogenes	19	0
	Meat from bovine animals and pig - meat products - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	19	2	Not Available	Listeria monocytogenes	19	2
	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	15	3	<= 100	Listeria monocytogenes	15	0
							>100	Listeria monocytogenes	15	0
	Meat from bovine animals and pig - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	15	3	Not Available	Listeria monocytogenes	15	3
	Meat from bovine animals and pig - minced meat - intended to be eaten raw - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	99	19	<= 100	Listeria monocytogenes	99	0
							>100	Listeria monocytogenes	99	0
	Meat from bovine animals and pig - minced meat - intended to be eaten raw - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	99	19	Not Available	Listeria monocytogenes	99	19
	Meat from deer (venison) - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	4	0	<= 100	Listeria monocytogenes	4	0
							>100	Listeria monocytogenes	4	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
Not Available	Meat from deer (venison) - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	4	0	Not Available	Listeria monocytogenes	4	0
	Meat from other animal species or not specified - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	2	0	<= 100	Listeria monocytogenes	2	0
							>100	Listeria monocytogenes	2	0
	Meat from other animal species or not specified - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	2	0	Not Available	Listeria monocytogenes	2	0
	Meat from pig - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	74	7	<= 100	Listeria monocytogenes	74	0
							>100	Listeria monocytogenes	74	0
	Meat from pig - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	74	7	Not Available	Listeria monocytogenes	74	7
	Meat from pig - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	222	4	<= 100	Listeria monocytogenes	222	0
							>100	Listeria monocytogenes	222	0
	Meat from pig - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	222	4	Not Available	Listeria monocytogenes	222	4
	Meat from pig - meat products - raw and intended to be eaten raw - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	30	8	<= 100	Listeria monocytogenes	30	0
							>100	Listeria monocytogenes	30	0
	Meat from pig - meat products - raw and intended to be eaten raw - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	30	8	Not Available	Listeria monocytogenes	30	8
	Meat from pig - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	9	3	<= 100	Listeria monocytogenes	9	0
							>100	Listeria monocytogenes	9	0
	Meat from pig - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	9	3	Not Available	Listeria monocytogenes	9	3
	Meat from pig - minced meat - intended to be eaten raw - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	4	1	<= 100	Listeria monocytogenes	4	0
							>100	Listeria monocytogenes	4	0
	Meat from pig - minced meat - intended to be eaten raw - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	4	1	Not Available	Listeria monocytogenes	4	1
	Meat from poultry, unspecified - fresh - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	22	3	<= 100	Listeria monocytogenes	22	0
							>100	Listeria monocytogenes	22	0
	Meat from poultry, unspecified - fresh - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	22	3	Not Available	Listeria monocytogenes	22	3
	Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	31	10	<= 100	Listeria monocytogenes	31	1
							>100	Listeria monocytogenes	31	0
	Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	31	10	Not Available	Listeria monocytogenes	31	10
	Meat from poultry, unspecified - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	10	Gram	19	1	<= 100	Listeria monocytogenes	19	0
							>100	Listeria monocytogenes	19	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
Not Available	Meat from poultry, unspecified - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	19	1	Not Available	Listeria monocytogenes	19	1
	Meat from poultry, unspecified - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	2	1	<= 100	Listeria monocytogenes	2	0
							>100	Listeria monocytogenes	2	0
	Meat from poultry, unspecified - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	2	1	Not Available	Listeria monocytogenes	2	1
	Meat from sheep - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	2	0	<= 100	Listeria monocytogenes	2	0
							>100	Listeria monocytogenes	2	0
	Meat from sheep - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	2	0	Not Available	Listeria monocytogenes	2	0
	Meat from sheep - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	1	0	<= 100	Listeria monocytogenes	1	0
							>100	Listeria monocytogenes	1	0
	Meat from sheep - minced meat - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	1	0	Not Available	Listeria monocytogenes	1	0
	Meat from wild boar - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	1	0	<= 100	Listeria monocytogenes	1	0
							>100	Listeria monocytogenes	1	0
	Meat from wild boar - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	1	0	Not Available	Listeria monocytogenes	1	0
	Meat, mixed meat - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	138	25	<= 100	Listeria monocytogenes	138	0
							>100	Listeria monocytogenes	138	0
	Meat, mixed meat - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	138	25	Not Available	Listeria monocytogenes	138	25
	Meat, mixed meat - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	145	5	<= 100	Listeria monocytogenes	145	0
							>100	Listeria monocytogenes	145	0
	Meat, mixed meat - meat products - cooked, ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	145	5	Not Available	Listeria monocytogenes	145	5
	Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - fresh - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	10	Gram	61	1	<= 100	Listeria monocytogenes	61	0
							>100	Listeria monocytogenes	61	0
	Meat, red meat (meat from bovines, pigs, goats, sheep, horses, donkeys, bison and water buffalos) - fresh - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed d)	25	Gram	61	1	Not Available	Listeria monocytogenes	61	1

Table LYSSAVIRUS in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Dogs - pet animals - Veterinary clinics - Not Available - animal sample - brain - Clinical investigations - Official sampling - Suspect sampling	animal	2	0	Lyssavirus	0
	Foxes - wild - Natural habitat - Not Available - animal sample - brain - Surveillance - Official sampling - Selective sampling	animal	28	0	Lyssavirus	0

Table SALMONELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	N of flocks under control programme	Target verification	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cattle (bovine animals) - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	96	16	Salmonella Enteritidis	11
							Salmonella Tennessee	1
							Salmonella Typhimurium	4
	Gallus gallus (fowl) - broilers - before slaughter - Farm - Luxembourg - environmental sample - boot swabs and dust - Control and eradication programmes - Official and industry sampling - Census	herd/flock	10	Y	10	1	Salmonella Enteritidis	0
							Salmonella Typhimurium	1
	Gallus gallus (fowl) - laying hens - adult - Farm - Luxembourg - environmental sample - boot swabs and dust - Control and eradication programmes - Official and industry sampling - Census	herd/flock	31	Y	31	0	Salmonella Enteritidis	0
							Salmonella Typhimurium	0
	Pigs - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	3	0	Salmonella spp., unspecified	0

Table SALMONELLA in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Meat from bovine animals - minced meat - intended to be eaten cooked - chilled - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	19	1	Salmonella Typhimurium, monophasic	1
	Meat from bovine animals and pig - meat products - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	14	1	Salmonella Kentucky	1
	Meat from pig - carcase - Slaughterhouse - Not Available - food sample - carcase swabs - Control and eradication programmes - HACCP and own check - Objective sampling	slaughter animal batch	400	Square centimetre	345	1	Salmonella 4,5,12:-:1,2	1
	Meat, mixed meat - meat preparation - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	20	3	Salmonella Typhimurium, monophasic	3

Table SALMONELLA in feed

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Compound feedingstuffs for cattle - final product - Farm - Belgium - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	2	0	Salmonella	0
	Compound feedingstuffs for cattle - final product - Farm - Germany - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	7	0	Salmonella	0
	Compound feedingstuffs for cattle - final product - Farm - Luxembourg - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	23	0	Salmonella	0
	Compound feedingstuffs for cattle - final product - Farm - Unknown - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Compound feedingstuffs for cattle - final product - Feed mill - Luxembourg - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Compound feedingstuffs for pigs - final product - Farm - Belgium - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	4	0	Salmonella	0
	Compound feedingstuffs for pigs - final product - Farm - Germany - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	12	0	Salmonella	0
	Compound feedingstuffs for pigs - final product - Farm - Luxembourg - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	8	0	Salmonella	0
	Compound feedingstuffs for pigs - final product - Farm - Netherlands - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Compound feedingstuffs for pigs - final product - Farm - Unknown - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Compound feedingstuffs for poultry, laying hens - final product - Farm - Belgium - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	3	0	Salmonella	0
	Compound feedingstuffs for poultry, laying hens - final product - Farm - Germany - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	4	0	Salmonella	0
	Compound feedingstuffs for poultry, laying hens - final product - Farm - Luxembourg - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	3	0	Salmonella	0
	Compound feedingstuffs for poultry, laying hens - final product - Feed mill - Luxembourg - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of cereal grain origin - barley derived - Farm - Luxembourg - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of cereal grain origin - maize derived - Farm - Germany - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of cereal grain origin - other cereal grain derived - Processing plant - Luxembourg - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Feed material of oil seed or fruit origin - linseed derived - Feed mill - Germany - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of oil seed or fruit origin - rape seed derived - Farm - Unknown - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of oil seed or fruit origin - rape seed derived - Feed mill - Germany - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of oil seed or fruit origin - soya (bean) derived - Farm - Belgium - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of oil seed or fruit origin - soya (bean) derived - Farm - Unknown - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	2	0	Salmonella	0
	Feed material of oil seed or fruit origin - soya (bean) derived - Feed mill - Unknown - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	2	0	Salmonella	0
	Feed material of oil seed or fruit origin - soya (bean) derived - Retail - Unknown - feed sample - Surveillance - Official sampling - Selective sampling	batch (food/feed)	25	Gram	4	0	Salmonella	0

Table TRICHINELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Foxes - wild - Natural habitat - Not Available - animal sample - organ/tissue - Monitoring - Official sampling - Selective sampling	animal	27	0	Trichinella	0
	Pigs - fattening pigs - raised under controlled housing conditions - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	163234	0	Trichinella	0
	Solipeds, domestic - horses - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	49	0	Trichinella	0
	Wild boars - wild - Hunting - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	3513	0	Trichinella	0

Table YERSINIA in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Meat from bovine animals - meat preparation - intended to be eaten cooked - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	2	0	Yersinia	0
	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	65	0	Yersinia	0
	Meat from bovine animals and pig - meat products - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	7	0	Yersinia	0
	Meat from bovine animals and pig - minced meat - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	59	0	Yersinia	0
	Meat from pig - fresh - chilled - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	10	0	Yersinia	0
	Meat from pig - meat preparation - intended to be eaten cooked - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	37	0	Yersinia	0
	Meat from pig - meat products - raw and intended to be eaten raw - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	10	0	Yersinia	0
	Meat from pig - minced meat - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	10	0	Yersinia	0
	Meat, mixed meat - meat preparation - intended to be eaten cooked - Processing plant - Not Available - Not Available - Surveillance - Official sampling - Selective sampling	single (food/feed)	25	Gram	5	0	Yersinia	0

FOODBORNE OUTBREAKS TABLES

Foodborne Outbreaks: summarized data

		Outbreak strenght	Strong		
Causative agent	Food vehicle	N outbreaks	N human cases	N	
				hospitalized	N deaths
Enteropathogenic E. coli (EPEC)	Fish and fish products	1	43	0	0

Strong Foodborne Outbreaks: detailed data

Causative agent	Other Causative Agent	FBO nat. code	Outbreak type	Food vehicle	More food vehicle info	Nature of evidence	Setting	Place of origin of problem	Origin of food vehicle	Contributory factors	Comment	N outbreaks	N human cases	N hosp.	N deaths
Enteropathogenic E. coli (EPEC)	unknown	N_A	General	Fish and fish products	various raw fish, suhi dishes	Analytical epidemiological evidence\$Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Not Available	Restaurant or Cafe or Pub or Bar or Hotel or Catering service	Not Available	Cross-contamination\$Inadequate chilling\$Infected food handler\$Storage time/temperature abuse	N_A	1	43	0	0

Weak Foodborne Outbreaks: detailed data

No data returned for this view. This might be because the applied filter excludes all data.

ANTIMICROBIAL RESISTANCE TABLES FOR CAMPYLOBACTER

Table Antimicrobial susceptibility testing of Campylobacter coli in Pigs - fattening pigs

Sampling Stage: Slaughterhouse
 Sampling Type: animal sample - caecum
 Sampling Context: Monitoring

Sampler: Official sampling
 Sampling Strategy: Objective sampling
 Programme Code: AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ciprofloxacin	Erythromycin (Erythromycin A)	Gentamicin	Nalidixic acid	Streptomycin	Tetracycline
ECOFF	0.5	8	2	16	4	2
Lowest limit	0.12	1	0.12	1	0.25	0.5
Highest limit	16	128	16	64	16	64
N of tested isolates	30	30	30	30	30	30
N of resistant isolates	23	7	2	26	25	28
MIC						
0.25	2					
0.5			2			
1			20			
2			6			
4			2	2	5	
8	11	1		2		
16	12				1	1
>16					24	
32						1
64				3		6
>64				23		20
128		3				
>128		4				
<=0.12	5					
<=0.5						2
<=1		22				

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from bovine animals and pig - meat preparation - intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ciprofloxacin	Erythromycin (Erythromycin A)	Gentamicin	Nalidixic acid	Streptomycin	Tetracycline
ECOFF	0.5	4	2	16	4	1
Lowest limit	0.12	1	0.12	1	0.25	0.5
Highest limit	16	128	16	64	16	64
N of tested isolates	1	1	1	1	1	1
N of resistant isolates	1	0	0	1	0	1
MIC						
0.25			1			
0.5					1	
8	1					
32						1
64				1		
<=1		1				

ANTIMICROBIAL RESISTANCE TABLES FOR SALMONELLA

Table Antimicrobial susceptibility testing of *Salmonella* Enteritidis in Cattle (bovine animals)

Sampling Stage: Farm	Sampling Type: animal sample - faeces					Sampling Context: Clinical investigations							
Sampler: Not applicable	Sampling Strategy: Suspect sampling					Programme Code: OTHER AMR MON							
Analytical Method: Dilution - sensititre													
Country of Origin: Luxembourg													
AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim	
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2	
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25	
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32	
N of tested isolates	3	3	3	3	3	3	3	3	3	3	3	3	
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0	
MIC													
0.03	3												
0.25												1	
0.5												2	1
1							1						
2	2						2						1
<=0.03								3					
<=0.25	3											1	
<=0.5			3					2					
<=1	1						1						
<=2											3		
<=4									3				
<=8				3									

Table Antimicrobial susceptibility testing of Salmonella Enteritidis in Gallus gallus (fowl) - laying hens

Sampling Stage: Farm

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: environmental sample - boot swabs and dust

Sampling Strategy: Objective sampling

Sampling Context: Survey - EU baseline survey

Programme Code: AMR MON

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	2	2	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	0	0	0	0	0	2	0	0	0	0	0	0
MIC	0.03				2							
	0.5	1									2	2
	2	2										
	4									2		
	8					2						
	<=0.03							2				
	<=0.25	1										
	<=0.5		2				2					
	<=4								2			
	<=8			2								

Table Antimicrobial susceptibility testing of Salmonella Gaminara in Gallus gallus (fowl) - broilers

Sampling Stage: Farm

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: environmental sample - boot swabs and dust

Sampling Strategy: Objective sampling

Sampling Context: Survey - EU baseline survey

Programme Code: AMR MON

AM substance	Trimethoprim
ECOFF	2
Lowest limit	0.25
Highest limit	32
N of tested isolates	1
N of resistant isolates	0
MIC	
<=0.25	1

Table Antimicrobial susceptibility testing of Salmonella Gaminara in Gallus gallus (fowl) - broilers

Sampling Stage: Farm

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: environmental sample - boot swabs and dust

Sampling Strategy: Objective sampling

Sampling Context: Survey - EU baseline survey

Programme Code: OTHER AMR MON

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0
MIC	0.03										
	<=0.03										
	<=0.25										
	<=0.5										
	<=1										
	<=2										
	<=4										
	<=8										

Table Antimicrobial susceptibility testing of Salmonella Give in Gallus gallus (fowl) - laying hens

Sampling Stage: Farm

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: environmental sample - boot swabs and dust

Sampling Strategy: Objective sampling

Sampling Context: Survey - EU baseline survey

Programme Code: AMR MON

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim			
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2			
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25			
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32			
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1			
N of resistant isolates	0	0	0	0	0	1	0	0	0	0	0	1			
MIC															
0.25												1			
4						1									
>32												1			
<=0.015					1										
<=0.03									1						
<=0.25			1												
<=0.5				1				1							
<=1	1														
<=2											1				
<=4										1					
<=8				1											

Table Antimicrobial susceptibility testing of Salmonella Kentucky in Meat from bovine animals and pig - meat preparation - intended to be eaten raw

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	0.5	2	16	0.064	2	2	0.125	16	256	8	1	2
Lowest limit	1	2	0.25	0.5	8	0.015	1	0.5	0.03	4	8	2	0.25	0.25
Highest limit	64	64	4	8	128	8	16	32	16	128	1024	64	8	32
N of tested isolates														
N of resistant isolates	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MIC	1	0	0	1	0	1	0	1	0	1	1	1	0	0
0.5														
1														1
4														
8														
16														
>64	1													
>128														
>1024														
<=0.03														
<=0.25														
<=1														
<=8														

Table Antimicrobial susceptibility testing of Salmonella Livingstone in Gallus gallus (fowl) - broilers

Sampling Stage: Farm			Sampling Type: environmental sample - boot swabs and dust				Sampling Context: Survey - EU baseline survey					
Sampler: Official sampling			Sampling Strategy: Objective sampling				Programme Code: OTHER AMR MON					
Analytical Method: Dilution - sensititre												
Country of Origin: Luxembourg												
AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	0	0	0	0	0	1	0	0	0	0	0	0
MIC												
0.03	1											
0.5	1											
1	1											
2	1											
4	1											
<=0.03	1											
<=0.25	1	1										
<=0.5	1											
<=2	1											
<=4	1											
<=8	1											

Table Antimicrobial susceptibility testing of Salmonella Mbandaka in Gallus gallus (fowl) - broilers

Sampling Stage: Farm

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: environmental sample - boot swabs and dust

Sampling Strategy: Objective sampling

Sampling Context: Survey - EU baseline survey

Programme Code: AMR MON

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0
MIC	2	1				1	1					
	<=0.015				1							
	<=0.03							1				
	<=0.25	1									1	1
	<=0.5		1									
	<=2									1		
	<=4								1			
	<=8			1								

Table Antimicrobial susceptibility testing of Salmonella Mbandaka in Gallus gallus (fowl) - broilers

Sampling Stage: Farm

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: environmental sample - boot swabs and dust

Sampling Strategy: Objective sampling

Sampling Context: Survey - EU baseline survey

Programme Code: OTHER AMR MON

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim	
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2	
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25	
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32	
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1	
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0	
MIC													
0.5												1	
1							1						
2	1					1							
16				1									
<=0.015					1								
<=0.03								1					
<=0.25	1												1
<=0.5				1									
<=2											1		
<=4										1			

Table Antimicrobial susceptibility testing of Salmonella Nyborg in Gallus gallus (fowl) - laying hens

Sampling Stage: Farm

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: environmental sample - boot swabs and dust

Sampling Strategy: Objective sampling

Sampling Context: Survey - EU baseline survey

Programme Code: AMR MON

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim			
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2			
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25			
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32			
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1			
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0			
MIC															
0.5												1			
2						1									
<=0.015					1										
<=0.03									1						
<=0.25			1									1			
<=0.5				1				1							
<=1	1														
<=2										1					
<=4									1						
<=8				1											

Table Antimicrobial susceptibility testing of Salmonella Tennessee in Cattle (bovine animals)

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Clinical investigations

Sampler: Not applicable

Sampling Strategy: Suspect sampling

Programme Code: OTHER AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0
MIC												
0.5												
2												
<=0.015												
<=0.03												
<=0.25												
<=0.5												
<=1												
<=2												
<=4												
<=8												

Table Antimicrobial susceptibility testing of Salmonella Typhimurium in Cattle (bovine animals)

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Clinical investigations

Sampler: Not applicable

Sampling Strategy: Suspect sampling

Programme Code: OTHER AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	2	2	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0
MIC	0.03											
	0.06											
	0.25											
	0.5											
	<=0.25											
	<=0.5											
	<=1											
	<=2											
	<=4											
	<=8											

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Cattle (bovine animals)

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Clinical investigations

Sampler: Not applicable

Sampling Strategy: Suspect sampling

Programme Code: OTHER AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	1	0	0	0	0	0	0	0	0	0	0	0
MIC												
0.03					1							
0.06								1				
0.5											1	
2							1					
>64	1											
<=0.25		1										1
<=0.5			1									
<=1						1						
<=2										1		
<=4									1			
<=8				1								

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Meat, mixed meat - meat preparation

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	2	2	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	2	0	0	0	0	0	0	0	0	2	0	0
MIC	0.5										2	
2						1						
>64	2									2		
<=0.015					2							
<=0.03								2				
<=0.25		2										2
<=0.5			2				2					
<=1						1						
<=4									2			
<=8				2								

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Meat, mixed meat - meat preparation

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	1	0	0	0	0	0	0	0	0	1	0	1
MIC												
0.5											1	
2						1						
>32												1
>64	1									1		
<=0.015					1							
<=0.03								1				
<=0.25		1										
<=0.5			1				1					
<=4									1			
<=8				1								

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Meat from bovine animals and pig - meat preparation

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Ampicillin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	0.5	2	16	0.064	2	2	0.125	16	8	1	2
Lowest limit	1	0.25	0.5	8	0.015	1	0.5	0.03	4	2	0.25	0.25
Highest limit	64	4	8	128	8	16	32	16	128	64	8	32
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	1	0	0	0	0	0	0	0	0	0	0	0
MIC												
0.03					1							
0.06								1				
0.5											1	
1							1					
2						1						
>64	1											
<=0.25		1										1
<=0.5			1									
<=2										1		
<=4									1			
<=8				1								

ANTIMICROBIAL RESISTANCE TABLES FOR INDICATOR ESCHERICHIA COLI

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - meat preparation - intended to be eaten raw

Sampling Stage: Retail

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: food sample - meat

Sampling Strategy: Objective sampling

Sampling Context: Monitoring

Programme Code: ESBL MON pn12

AM substance	Cefepime		Cefotaxime + Clavulanic acid		Cefoxitin Ceftazidim		Ceftazidime + Clavulanic acid		Ertapenem	Imipenem	Meropenem	Temocillin
	Cefotaxime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Ceftazidime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.12	32		
Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5		
Highest limit	32	64	64	64	128	128	2	16	16	64		
N of tested isolates	1	1	1	1	1	1	1	1	1	1		
N of resistant isolates	1	1	0	0	1	0	0	0	0	0		
MIC												
1					1							
2	1											
4				1								
8		1									1	
<=0.015							1					
<=0.03									1			
<=0.06			1									
<=0.12						1		1				

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - meat preparation - intended to be eaten raw

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

	AM substance							Nalidixic acid				
	Ampicillin	Azithromycin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin		Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim	
ECOFF	8	16	16	0.064	2	2	16	64	8	1	2	
Lowest limit	1	2	8	0.015	1	0.5	4	8	2	0.25	0.25	
Highest limit	64	64	128	8	16	32	128	1024	64	8	32	
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	
N of resistant isolates	1	0	0	0	0	0	0	1	0	0	1	
MIC												
0.03				1								
2						1						
4		1										
>32											1	
>64	1											
>1024								1				
<=0.25										1		
<=1					1							
<=2									1			
<=4							1					
<=8			1									

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - meat products - raw but intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pnl2

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
Cefotaxime synergy test	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available
Ceftazidime synergy test	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available
ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.12	32
Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5
Highest limit	32	64	64	64	128	128	2	16	16	64
N of tested isolates	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	1	2	1	1	2	0	0	0	0	0
MIC										
0.25								1		
0.5						1				
1		1	1							
2					2					1
4		1								1
8				1						
16	1			1						
<=0.015							2			
<=0.03									2	
<=0.06	1		1							
<=0.12						1		1		

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - meat products - raw but intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Nalidixic acid										
	Ampicillin	Azithromycin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim	
ECOFF	8	16	16	0.064	2	2	16	64	8	1	2
Lowest limit	1	2	8	0.015	1	0.5	4	8	2	0.25	0.25
Highest limit	64	64	128	8	16	32	128	1024	64	8	32
N of tested isolates	2	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	2	1	0	1	0	1	1	2	2	0	2
MIC											
0.25	1										
8	1										
32	1										
>32	1										
64	1										
>64	2										
>1024	2										
<=0.015	1										
<=0.25	2										
<=0.5	1										
<=1	2										
<=4	1										
<=8	2										

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - meat preparation - intended to be eaten cooked

Sampling Stage: Retail

Sampler: Official sampling

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

Sampling Type: food sample - meat

Sampling Strategy: Objective sampling

Sampling Context: Monitoring

Programme Code: ESBL MON pnl2

	AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
	Cefotaxime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
	Ceftazidime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
	ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.12	32
	Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5
	Highest limit	32	64	64	64	128	128	2	16	16	64
	N of tested isolates	2	2	2	2	2	2	2	2	2	2
	N of resistant isolates	2	2	0	0	2	0	0	0	0	0
MIC											
0.12										1	
0.25		1									
0.5									1		
1		1									
2											1
4			2		2						
8						1					1
16						1					
<=0.015								2			
<=0.03										1	
<=0.06				2							
<=0.12							2		1		

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - meat preparation - intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

MIC	AM substance	Ampicillin	Azithromycin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	8	16	16	0.064	2	2	16	64	8	1	2
	Lowest limit	1	2	8	0.015	1	0.5	4	8	2	0.25	0.25
	Highest limit	64	64	128	8	16	32	128	1024	64	8	32
	N of tested isolates	2	2	2	2	2	2	2	2	2	2	2
	N of resistant isolates	2	0	1	2	0	0	1	2	1	0	2
0.25					2							
1											1	
4			1									
8			1									
>32												2
64				1								
>64		2								1		
128								1				
>1024									2			
<=0.25											1	
<=0.5							2					
<=1						2						
<=2										1		
<=4								1				
<=8				1								

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Pigs - fattening pigs

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pnl2

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Cefepime		Cefotaxime + Clavulanic acid		Cefotaxime + Clavulanic acid		Ceftazidime + Clavulanic acid		Ertapenem		Imipenem		Meropenem		Temocillin	
	Cefepime	Cefotaxim	Cefotaxime	Clavulanic acid	Cefotaxime	Clavulanic acid	Ceftazidime	Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin	Cefepime	Cefotaxim	Cefotaxime	Clavulanic acid
Cefotaxime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Ceftazidime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.125	32						
Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5						
Highest limit	32	64	64	64	128	128	2	16	16	64						
N of tested isolates	22	22	22	22	22	22	22	22	22	22						
N of resistant isolates	16	22	4	4	17	4	0	0	0	0						
MIC	0.03						1									
0.06							1									
0.25			1					4								
0.5			2		1	1										
1	1	1	1		1	2									1	
2	5	2		7	8	1									19	
4	8	3	1	8	5											
8	2	2		3	1											
16		10		1	2	1									2	
32		2		2												
>64		2		1												
<=0.015							20									
<=0.03									22							
<=0.06	6		17													
<=0.12						17		18								
<=0.25					4											

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Pigs - fattening pigs

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

	AM substance	Ampicillin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Nalidixic acid	Tetracycline	Tigecycline	Trimethoprim
ECOFF		8	16	0.064	2	2	16	8	1	2
Lowest limit		1	8	0.015	1	0.5	4	2	0.25	0.25
Highest limit		64	128	8	16	32	128	64	8	32
N of tested isolates		22	22	22	22	22	22	22	22	22
N of resistant isolates		22	1	10	0	6	6	12	0	12
MIC										
0.25				4						
0.5									2	2
1						10				1
4								1		
8				5			3			
>8				1						
16			1			1				
32						1				
>32						4				12
>64		22						12		
>128			1				6			
<=0.015				12						
<=0.25									20	7
<=0.5						6				
<=1					22					
<=2								9		
<=4							13			
<=8			20							

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from pig - meat products - raw but intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pnl2

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
Cefotaxime synergy test	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available
Ceftazidime synergy test	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Available	Not Available	Not Available
ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.12	32
Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5
Highest limit	32	64	64	64	128	128	2	16	16	64
N of tested isolates	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	0	1	1	1	1	1	0	0	0	0
MIC										
0.12	1									
0.25								1		
2		1	1							
8					1	1				1
64				1						
<=0.015							1			
<=0.03									1	

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from pig - meat products - raw but intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

	AM substance							Nalidixic acid				
	Ampicillin	Azithromycin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin		Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim	
ECOFF	8	16	16	0.064	2	2	16	64	8	1	2	
Lowest limit	1	2	8	0.015	1	0.5	4	8	2	0.25	0.25	
Highest limit	64	64	128	8	16	32	128	1024	64	8	32	
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	
N of resistant isolates	1	0	1	1	0	1	1	1	0	0	1	
MIC												
0.25				1								
4									1			
16		1				1						
>32											1	
>64	1											
>128			1				1					
>1024								1				
<=0.25										1		
<=1					1							

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - minced meat - intended to be eaten raw

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pnl2

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
Cefotaxime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
Ceftazidime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.12	32
Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5
Highest limit	32	64	64	64	128	128	2	16	16	64
N of tested isolates	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	1	2	2	1	2	2	0	0	0	0
MIC										
0.03									1	
0.06							1			
0.25	1									
0.5		1	1							
1					1	1				
2		1	1							1
8				1	1	1				1
>64				1						
<=0.015							1			
<=0.03									1	
<=0.06	1									
<=0.12								2		

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - minced meat - intended to be eaten raw

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

MIC	AM substance	Ampicillin	Azithromycin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	8	16	16	0.064	2	2	16	64	8	1	2
	Lowest limit	1	2	8	0.015	1	0.5	4	8	2	0.25	0.25
	Highest limit	64	64	128	8	16	32	128	1024	64	8	32
	N of tested isolates	2	2	2	2	2	2	2	2	2	2	2
	N of resistant isolates	2	1	1	1	0	0	1	2	2	0	1
0.25	1											
0.5	1											
1							1					
8	1											
>32												
>64	2	1										
>128				1								
>1024									2			
<=0.015	1											
<=0.25											1	1
<=0.5							1					
<=1	2											
<=4								1				
<=8	1											

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from pig - minced meat - intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pn12

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
Cefotaxime synergy test	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Available	Available	Not Available
Ceftazidime synergy test	Not Available	Not Available	Not Available	Available	Not Available	Not Available	Not Available	Available	Available	Not Available
ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.12	32
Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5
Highest limit	32	64	64	64	128	128	2	16	16	64
N of tested isolates	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	1	1	1	1	1	1	0	0	0	0
MIC										
0.03							1			
0.25	1							1		
2										1
4		1	1							
8					1	1				
32				1						
<=0.03									1	

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from pig - minced meat - intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

MIC	AM substance	Ampicillin	Azithromycin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	8	16	16	0.064	2	2	16	64	8	1	2
	Lowest limit	1	2	8	0.015	1	0.5	4	8	2	0.25	0.25
	Highest limit	64	64	128	8	16	32	128	1024	64	8	32
	N of tested isolates	1	1	1	1	1	1	1	1	1	1	1
	N of resistant isolates	1	0	0	1	0	0	1	0	1	0	0
	0.5	1										
4	1											
8	1											
32	1											
64	1											
>64	1											
>128	1											
<=0.25	1											
<=0.5	1											
<=1	1											
<=8	1											

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from pig - meat preparation - intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pnl2

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

	AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
	Cefotaxime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
	Ceftazidime synergy test	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
	ECOFF	0.125	0.25	0.25	8	0.5	0.5	0.06	0.5	0.12	32
	Lowest limit	0.06	0.25	0.06	0.5	0.25	0.12	0.015	0.12	0.03	0.5
	Highest limit	32	64	64	64	128	128	2	16	16	64
	N of tested isolates	3	3	3	3	3	3	3	3	3	3
	N of resistant isolates	3	3	0	0	3	0	0	0	0	0
MIC											
	0.03							2			
	0.12			1							
	0.25						1		2		
	0.5						1				
	2					2					
	4	1			1						
	8	2			2	1					3
	32		1								
	64		2								
	<=0.015							1			
	<=0.03									3	
	<=0.06			2							
	<=0.12						1		1		

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from pig - meat preparation - intended to be eaten cooked

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method: Dilution - sensititre

Country of Origin: Luxembourg

	AM substance										
	Ampicillin	Azithromycin	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	16	0.064	2	2	16	64	8	1	2
Lowest limit	1	2	8	0.015	1	0.5	4	8	2	0.25	0.25
Highest limit	64	64	128	8	16	32	128	1024	64	8	32
N of tested isolates	3	3	3	3	3	3	3	3	3	3	3
N of resistant isolates	3	0	2	3	0	1	3	3	3	0	3
MIC											
1						2					
4		1		1							
8		2									
>8				2							
16						1					
>32											3
64									1		
>64	3								2		
>128			2				3				
>1024								3			
<=0.25										3	
<=1					3						
<=8			1								

Specific monitoring of ESBL-/AmpC-/carbapenemase-producing bacteria and specific monitoring of carbapenemase-producing bacteria, in the absence of isolate detected

No data returned for this view. This might be because the applied filter excludes all data.

