European Food Safety Authority

ZOONOSES MONITORING

Netherlands

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

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

IN 2019

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 Netherlands during the year 2019.

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.

The national report contains two parts: tables summarising data reported in the Data Collection Framework and the related text forms. The text forms were sent by email as pdf files and they are incorporated at the end of the report.

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

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ANIMAL POPULATION TABLES

Table Susceptible animal population

		Population		
Animal species	**Category of animals**	**holding**	**animal**	**slaughter animal (heads)**
Cattle (bovine animals)	Cattle (bovine animals)	32,461	3,810,250	
	Cattle (bovine animals) - calves (under 1 year) - for slaughter			1,590,000
	Cattle (bovine animals) - dairy cows and heifers			474,785
Deer	Deer - farmed			2,168
Ducks	Ducks - unspecified	52	968,000	8,110,143
Gallus gallus (fowl)	Gallus gallus (fowl)			625,242,324
	Gallus gallus (fowl) - breeding flocks, unspecified	282	8,737,428	
	Gallus gallus (fowl) - broilers - unspecified	642	48,684,314	
	Gallus gallus (fowl) - laying hens	867	44,319,426	
Goats	Goats	12,680	614,645	173,545
Pigs	Pigs - unspecified	11,114	12,269,150	15,686,570
Sheep	Sheep	28,653	918,214	
	Sheep - animals over 1 year			158,291
	Sheep - animals under 1 year (lambs)			410,469
Solipeds, domestic	Solipeds, domestic - horses			1,959
Turkeys	Turkeys - unspecified	30	531,626	
Wild boars	Wild boars - farmed			5,012

DISEASE STATUS TABLES

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

Region	Number of animals serologically tested under investigations of suspect cases	Number of suspended herds under investigations of suspect cases	Number of seropositive animals under investigations of suspect cases	Number of animals positive to BST under investigations of suspect cases	Number of animals positive in microbiological testing under investigations of suspect cases	Number of herds with status officially free	Number of infected herds	Total number of animals	Number of herds tested under surveillance	Number of animals tested under surveillance	Total number of herds	Number of infected herds tested under surveillance	Number of herds tested under surveillance by bulk milk	Number of animals or pools tested under surveillance by bulk milk	Number of infected herds tested under surveillance by bulk milk	Number of notified abortions whatever cause under investigations of suspect cases	Number of isolations of Brucella abortus under investigations of suspect cases	Number of abortions due to Brucella infection under investigations of suspect cases	Number of animals tested by microbiology under investigations of suspect cases
NETHERLANDS	10,413	27	7	0	0	32,461	0	3,810,250	0	0	32,461	0	0	0	0	10,413	0	0	7

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

Region	Number of animals serologically tested under investigations of suspect cases	Number of suspended herds under investigations of suspect cases	Number of seropositive animals under investigations of suspect cases	Number of animals positive in microbiological testing under investigations of suspect cases	Number of herds with status officially free	Number of infected herds	Total number of animals	Number of herds tested under surveillance	Number of animals tested under surveillance	Total number of herds	Number of infected herds tested under surveillance	Number of animals tested by microbiology under investigations of suspect cases
NETHERLANDS	27	0	0	0	28,653	0	918,214	1,512	18,091	28,653	0	0

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 animals	Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological examinations	Number of animals detected positive in bacteriological examination	Total number of herds
NETHERLANDS	32,461	0	3,810,250	21	1	32,461

PREVALENCE TABLES

Table Brucella:BRUCELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Dogs - Veterinary clinics - Bulgaria - animal sample - blood - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	1	1	Brucella canis	1
	Dogs - Veterinary clinics - Finland - animal sample - blood - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	2	1	Brucella canis	1
	Dogs - Veterinary clinics - Germany - animal sample - blood - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	1	1	Brucella canis	1
	Dogs - Veterinary clinics - Netherlands - animal sample - blood - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	61	17	Brucella canis	17
	Dogs - Veterinary clinics - Russia - animal sample - blood - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	4	3	Brucella canis	3
	Dogs - Veterinary clinics - United Kingdom - animal sample - blood - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	1	1	Brucella canis	1
	Goats - Farm - Not Available - Not Available - Monitoring - Not applicable - Selective sampling	N_A	Not Available	animal	1232	0	Brucella melitensis	0
	Pigs - fattening pigs - Farm - Not Available - Not Available - Clinical investigations - Official sampling - Objective sampling	N_A	Not Available	animal	5838	0	Brucella	0
	Sheep - Farm - Not Available - Not Available - Monitoring - Not applicable - Selective sampling	N_A	Not Available	animal	15937	0	Brucella melitensis	0

Table Campylobacter:CAMPYLOBACTER in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Birds - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	16	11	Campylobacter, unspecified sp.	11
	Cats - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	843	11	Campylobacter, unspecified sp.	11
	Cattle (bovine animals) - Artificial insemination station - Not Available - Not Available - Monitoring - Not applicable - Selective sampling	Preputial/Vaginal lavage	Not Available	animal	1520	0	Campylobacter	0
	Cattle (bovine animals) - Farm - Not Available - Not Available - Monitoring - Not applicable - Objective sampling	Pathology	Not Available	animal	2306	0	Campylobacter	0
	Dogs - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	95	53	Campylobacter, unspecified sp.	53
	Goats - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	355	1	Campylobacter, unspecified sp.	1
	Lion - zoo animals - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	7	2	Campylobacter, unspecified sp.	2
	Monkeys - zoo animal - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	88	20	Campylobacter, unspecified sp.	20
	Monkeys - zoo animal - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	25	6	Campylobacter, unspecified sp.	6
	Other animals - exotic pet animals - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	29	13	Campylobacter, unspecified sp.	13
	Pigs - breeding animals - unspecified - piglets - Farm - Not Available - Not Available - Clinical investigations - HACCP and own check - Objective sampling	N_A	Not Available	animal	2048	0	Campylobacter	0
	Pigs - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	3	2	Campylobacter, unspecified sp.	2
	Pigs - fattening pigs - Farm - Not Available - animal sample - faeces - Surveillance - Official sampling - Objective sampling	N_A	ISO 10272-1:2006 Campylobacter	herd/flock	88	69	Campylobacter, unspecified sp.	69
	Raccoons - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	29	3	Campylobacter, unspecified sp.	3
	Ratites (ostrich, emu, nandu) - zoo animals - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	1	1	Campylobacter, unspecified sp.	1
	Rodents - zoo animal - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	3	1	Campylobacter, unspecified sp.	1
	Sheep - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	353	6	Campylobacter, unspecified sp.	6
	Solipeds, domestic - horses - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	2	1	Campylobacter, unspecified sp.	1

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Meat from broilers (Gallus gallus) - carcase - chilled - Slaughterhouse - Not Available - food sample - neck skin - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	slaughter animal batch	25	Gram	N_A	ISO/TS 10272-2:2006 Campylobacter	263	92	Campylobacter, unspecified sp.	92
	Meat from broilers (Gallus gallus) - fresh - chilled - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO 10272-1:2006 Campylobacter	25	19	Campylobacter, unspecified sp.	19
	Meat from broilers (Gallus gallus) - fresh - chilled - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO/TS 10272-2:2006 Campylobacter	25	19	Campylobacter, unspecified sp.	19
	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	237	78	Campylobacter, unspecified sp.	78
	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 10272-2:2006 Campylobacter	237	78	Campylobacter, unspecified sp.	78
	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO 10272-1:2006 Campylobacter	15	14	Campylobacter, unspecified sp.	14
	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	294	102	Campylobacter, unspecified sp.	102
	Meat from goat - fresh - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	4	0	Campylobacter	0
	Meat from sheep - fresh - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	240	2	Campylobacter, unspecified sp.	2
	Meat from turkey - fresh - chilled - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO 10272-1:2006 Campylobacter	2	2	Campylobacter, unspecified sp.	2
	Meat from turkey - fresh - chilled - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO/TS 10272-2:2006 Campylobacter	2	2	Campylobacter, unspecified sp.	2
	Meat from turkey - fresh - chilled - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	14	4	Campylobacter, unspecified sp.	4
	Meat from turkey - fresh - chilled - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 10272-2:2006 Campylobacter	14	4	Campylobacter, unspecified sp.	4
	Meat from turkey - meat preparation - intended to be eaten cooked - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO 10272-1:2006 Campylobacter	1	0	Campylobacter	0
	Meat from turkey - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	5	1	Campylobacter, unspecified sp.	1
	Milk, cows' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	99	1	Campylobacter	1
	Milk, goats' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	5	0	Campylobacter	0
	Mushrooms - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	75	0	Campylobacter	0
	Ready-to-eat salads - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	262	1	Campylobacter, unspecified sp.	1
	Vegetables - pre-cut - non-ready-to-eat - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	278	1	Campylobacter, unspecified sp.	1
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 10272-1:2006 Campylobacter	819	0	Campylobacter	0

Table COXIELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sampling Details	Method	Total units tested	Total units positive	N of clinical affected herds	Zoonoses	N of units positive
Not Available	Cattle (bovine animals) - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal	Pathology	Not Available	382	4		Coxiella burnetii	4
	Goats - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	animal	Pathology	Not Available	355	0		Coxiella	0
	Goats - Farm - Not Available - Not Available - Monitoring - active - Official sampling - Objective sampling	animal	N_A	Not Available	406	0		Coxiella	0
	Sheep - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	animal	Pathology	Not Available	353	0		Coxiella	0
	Sheep - Farm - Not Available - Not Available - Monitoring - active - Official sampling - Objective sampling	animal	N_A	Not Available	36	0		Coxiella	0

Table Cronobacter:CRONOBACTER in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Infant formula - dried - intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	10	Gram	30x 10g	ISO 22964:2017 Cronobacter	25	2	Cronobacter	2
	Infant formula - dried - intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	10	Gram	objective sampling by COKZ for export certification	ISO 22964:2017 Cronobacter	31	0	Cronobacter	0
			25	Gram	N_A	ISO 22964:2017 Cronobacter	61	2	Cronobacter	2

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Gallus gallus (fowl) - broilers - during rearing period - Farm - Not Available - animal sample - faeces - Surveillance - Official sampling - Objective sampling	herd/flock	25	Gram	N_A	Other methods based on PCR detection of vtx genes	377	1	VTEC O24	H18	VT2, gene identified, subtype unspecified	eae positive	1
	Pigs - fattening pigs - Farm - Not Available - animal sample - faeces - Surveillance - Official sampling - Objective sampling	herd/flock	25	Gram	N_A	Other methods based on PCR detection of vtx genes	85	50	VTEC O100	H20	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H30	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	12
									VTEC O104	H7	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O113	H4	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O115	H10	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O123	H10	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O146	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O159	H16	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O174	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O2	H10	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O32	H9	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O8	H16	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H19	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H28	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
										H4	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Pigs - fattening pigs - Farm - Not Available - animal sample - faeces - Surveillance - Official sampling - Objective sampling	herd/flock	25	Gram	N_A	Other methods based on PCR detection of vtx genes	85	50	VTEC O8	H9	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	9
									VTEC O84	H2	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O9	H12	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H4	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	3
									VTEC, unspecified	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	6

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	10	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	39	1	VTEC, unspecified	Not Available	VT1, gene identified, subtype unspecified	Adhesion genes not investigated	1
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	103	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Fish - raw - frozen - Border Control Posts - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	201	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Fruits - whole - Wholesale - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	99	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Live bivalve molluscs - oysters - depurated - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	33	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Live bivalve molluscs - oysters - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	13	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Live bivalve molluscs - unspecified - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	2	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Meat from bovine animals - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	497	15	VTEC O100	H30	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O109	H5	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O136	H12	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
										H16	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O149	H1	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H12	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O168	H8	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Meat from bovine animals - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	497	15	VTEC O171	H2	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	3
									VTEC O55	H12	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O7	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H4	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Meat from bovine animals - fresh - Slaughterhouse - Not Available - food sample - meat - Unspecified - Official sampling - Objective sampling	single (food/feed)	330	Gram	USA export	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	194	33	VTEC O103	H2	VT1, gene identified, subtype unspecified	eae positive	1
										HNT	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	eae positive	1
									VTEC O109	H5	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	4
									VTEC O11	H9	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O113	H4	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O117	H12	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O146	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O171	H25	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H29	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O174	H21	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O2	H25	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Meat from bovine animals - fresh - Slaughterhouse - Not Available - food sample - meat - Unspecified - Official sampling - Objective sampling	single (food/feed)	330	Gram	USA export	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	194	33	VTEC O2	H29	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O26	H11	VT1, gene identified, subtype unspecified	eae positive	1
									VTEC O38	H26	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O55	H12	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	7
									VTEC O8	H19	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC, unspecified	H4	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	5
										H48	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Meat from bovine animals - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	172	10	VTEC O113	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	4
										H4	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O15	H16	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O160	H16	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O174	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O55	H7	VT1, gene identified, subtype unspecified	eae positive	1
									VTEC O88	H25	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Meat from bovine animals - meat preparation - intended to be eaten raw - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	289	4	VTEC O113	H4	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O174	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Meat from bovine animals - meat preparation - intended to be eaten raw - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	289	4	VTEC O43	H2	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O8	H19	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	4	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	5	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Meat from deer (venison) - fresh - frozen - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	1	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Meat from farmed game - ratites - fresh - frozen - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	13	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Meat from farmed game- land mammals - meat products - raw but intended to be eaten cooked - chilled - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	29	4	VTEC O102	H6	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O174	H8	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O84	H40	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC, unspecified	Not Available	Verotoxin production, toxin type unknown	Adhesion genes not investigated	4
	Meat from goat - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	4	1	VTEC O15	H27	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Meat from other animal species or not specified - fresh - frozen - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	6	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Meat from pig - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	127	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Meat from sheep - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	210	31	VTEC O104	H7	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O108	H21	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O109	H5	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O113	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H4	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O146	H21	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	4
											VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	6
									VTEC O15	H27	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O176	H4	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O2	H32	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O32	H9	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O38	H6	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Meat from sheep - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	210	31	VTEC O55	H12	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O6	H10	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	2
									VTEC O78	H4	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O8	H19	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H4	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
											VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O9	H30	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O91	H14	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O98	H12	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Meat from sheep - meat preparation - intended to be eaten cooked - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	29	4	VTEC O113	H21	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
										H4	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O15	H27	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
									VTEC O8	H45	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Milk, cows' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	99	3	VTEC, unspecified	Not Available	VT1, gene identified, subtype unspecified	Adhesion genes not investigated	1
											VT2, gene identified, subtype unspecified	Adhesion genes not investigated	2

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	total units tested	total units positive	Zoonoses	ANTH	VTX	AG	N units positive
Not Available	Milk, goats' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	5	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Ready-to-eat salads - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	264	1	VTEC O11	H5	VT2, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1
	Seeds, dried - Wholesale - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	164	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Spices and herbs - fresh - Border Control Posts - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	6	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Spices and herbs - fresh - Wholesale - Not Available - food sample - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	46	1	VTEC O88	H25	VT2, gene identified, subtype unspecified ;VT1, gene identified, subtype unspecified	Adhesion genes investigation not reported	1
	Vegetables - leaves - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	32	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Vegetables - leaves - Wholesale - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	19	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Vegetables - pre-cut - non-ready-to-eat - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	280	0	Verocytotoxigenic E. coli (VTEC)	Not Available	Not Available	Not Available	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO/TS 13136:2012 (including the EU-RL adaptation for O104:H4)	819	1	VTEC O88	H25	VT1, gene identified, subtype unspecified	Entero-aggregative adhesion genes negative	1

Table Listeria:LISTERIA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cattle (bovine animals) - dairy cows - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	Milk	Not Available	animal	6702	1	Listeria spp., unspecified	1
	Cattle (bovine animals) - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	Pathology	Not Available	animal	2306	10	Listeria spp., unspecified	10
	Goats - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	355	24	Listeria spp., unspecified	24
	Pigs - breeding animals - unspecified - piglets - Farm - Not Available - Not Available - Clinical investigations - HACCP and own check - Suspect sampling	N_A	Not Available	animal	2048	0	Listeria	0
	Sheep - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	353	11	Listeria spp., unspecified	11

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
Not Available	Cheeses made from cows' milk - fresh - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	112	0	detection	Listeria monocytogenes	112	0
	Cheeses made from cows' milk - fresh - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	21	0	detection	Listeria monocytogenes	21	0
	Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	18	0	detection	Listeria monocytogenes	18	0
	Cheeses made from cows' milk - hard - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	10	Gram	N_A	109	1	<= 100	Listeria monocytogenes	1	1
								>100	Listeria monocytogenes	1	0
	Cheeses made from cows' milk - hard - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	109	1	detection	Listeria monocytogenes	109	1
	Cheeses made from cows' milk - hard - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	410	1	<= 100	Listeria monocytogenes	1	1
								>100	Listeria monocytogenes	1	0
	Cheeses made from cows' milk - hard - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	410	1	detection	Listeria monocytogenes	410	1
					objective sampling by COKZ for export certification	1377	0	detection	Listeria monocytogenes	1,377	0
	Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	10	Gram	N_A	437	3	<= 100	Listeria monocytogenes	5	1
								>100	Listeria monocytogenes	5	1
	Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	437	3	detection	Listeria monocytogenes	437	3
	Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	5x25	104	0	detection	Listeria monocytogenes	104	0
	Cheeses made from cows' milk - soft and semi-soft - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	25	0	detection	Listeria monocytogenes	25	0
	Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	91	0	detection	Listeria monocytogenes	91	0
	Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	17	0	detection	Listeria monocytogenes	17	0
	Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	5x25	22	0	detection	Listeria monocytogenes	22	0
	Cheeses made from goats' milk - hard - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	105	0	detection	Listeria monocytogenes	105	0
	Cheeses, made from unspecified milk or other animal milk - spreadable - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	135	0	detection	Listeria monocytogenes	135	0
	Crustaceans - lobsters - cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	11	0	<= 100	Listeria monocytogenes	11	0
								>100	Listeria monocytogenes	11	0
	Crustaceans - lobsters - cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	11	0	detection	Listeria monocytogenes	11	0
	Crustaceans - shrimps - cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	82	2	<= 100	Listeria monocytogenes	82	2
								>100	Listeria monocytogenes	82	0
	Crustaceans - shrimps - cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	82	2	detection	Listeria monocytogenes	82	2
	Dairy products (excluding cheeses) - butter - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	1	Gram	N_A	89	0	detection	Listeria monocytogenes	89	0
	Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	1	Gram	N_A	16	0	detection	Listeria monocytogenes	16	0
	Dairy products (excluding cheeses) - butter - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	40	0	detection	Listeria monocytogenes	40	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
Not Available	Dairy products (excluding cheeses) - cheese analogue - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	132	0	detection	Listeria monocytogenes	132	0
	Dairy products (excluding cheeses) - chocolate milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	objective sampling by COKZ for export certification	8	0	detection	Listeria monocytogenes	8	0
	Dairy products (excluding cheeses) - cream - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	6	0	detection	Listeria monocytogenes	6	0
	Dairy products (excluding cheeses) - cream - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	15	0	detection	Listeria monocytogenes	15	0
	Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	96	0	detection	Listeria monocytogenes	96	0
				Millilitre	N_A	22	0	detection	Listeria monocytogenes	22	0
	Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	18	0	detection	Listeria monocytogenes	18	0
				Millilitre	objective sampling by COKZ for export certification	47	0	detection	Listeria monocytogenes	47	0
	Dairy products (excluding cheeses) - fermented dairy products - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	183	0	detection	Listeria monocytogenes	183	0
				Millilitre	N_A	148	0	detection	Listeria monocytogenes	148	0
	Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	252	0	detection	Listeria monocytogenes	252	0
	Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	21	0	detection	Listeria monocytogenes	21	0
	Dairy products (excluding cheeses) - milk powder and whey powder - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	5	0	detection	Listeria monocytogenes	5	0
	Fish - Fishery products from fish species associated with a high amount of histidine - which have undergone enzyme maturation treatment in brine - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	4	1	<= 100	Listeria monocytogenes	4	1
								>100	Listeria monocytogenes	4	0
	Fish - Fishery products from fish species associated with a high amount of histidine - which have undergone enzyme maturation treatment in brine - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	4	1	detection	Listeria monocytogenes	4	1
	Fish - Fishery products from fish species associated with a high amount of histidine - which have undergone enzyme maturation treatment in brine - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	128	6	<= 100	Listeria monocytogenes	128	6
								>100	Listeria monocytogenes	128	0
	Fish - Fishery products from fish species associated with a high amount of histidine - which have undergone enzyme maturation treatment in brine - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	128	6	detection	Listeria monocytogenes	128	6
	Fish - smoked - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	40	0	<= 100	Listeria monocytogenes	40	0
								>100	Listeria monocytogenes	40	0
	Fish - smoked - Processing plant - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	40	0	detection	Listeria monocytogenes	40	0
	Fish - smoked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	673	38	<= 100	Listeria monocytogenes	673	37
								>100	Listeria monocytogenes	673	1
	Fish - smoked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	673	38	detection	Listeria monocytogenes	673	38
	Infant formula - dried - intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	30x 25g	19	0	detection	Listeria monocytogenes	19	0
	Infant formula - dried - intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	47	0	detection	Listeria monocytogenes	47	0
	Infant formula - dried - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	30x 25g	20	0	detection	Listeria monocytogenes	20	0
	Infant formula - dried - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	25	0	detection	Listeria monocytogenes	25	0
	Meat from bovine animals - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	283	24	detection	Listeria monocytogenes	283	24
	Meat from bovine animals - meat preparation - intended to be eaten raw - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	554	30	<= 100	Listeria monocytogenes	287	30
								>100	Listeria monocytogenes	287	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
Not Available	Meat from bovine animals - meat preparation - intended to be eaten raw - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	554	30	detection	Listeria monocytogenes	287	30
	Meat from broilers (Gallus gallus) - fresh - chilled - Processing plant - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	25	8	<= 100	Listeria monocytogenes	25	8
								>100	Listeria monocytogenes	25	0
	Meat from broilers (Gallus gallus) - fresh - chilled - Processing plant - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	25	8	detection	Listeria monocytogenes	25	8
	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	235	46	<= 100	Listeria monocytogenes	235	46
								>100	Listeria monocytogenes	235	0
	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	235	46	detection	Listeria monocytogenes	235	46
	Meat from deer (venison) - fresh - frozen - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	1	0	detection	Listeria monocytogenes	1	0
	Meat from farmed game - ratites - fresh - frozen - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	13	0	detection	Listeria monocytogenes	13	0
	Meat from farmed game- land mammals - meat products - raw but intended to be eaten cooked - chilled - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	29	1	detection	Listeria monocytogenes	29	1
	Meat from other animal species or not specified - fresh - frozen - Wholesale - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	6	0	detection	Listeria monocytogenes	6	0
	Meat from turkey - fresh - chilled - Processing plant - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	2	0	<= 100	Listeria monocytogenes	2	0
								>100	Listeria monocytogenes	2	0
	Meat from turkey - fresh - chilled - Processing plant - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	2	0	detection	Listeria monocytogenes	2	0
	Meat from turkey - fresh - chilled - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	14	2	<= 100	Listeria monocytogenes	14	2
								>100	Listeria monocytogenes	14	0
	Meat from turkey - fresh - chilled - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	14	2	detection	Listeria monocytogenes	14	2
	Milk from other animal species or unspecified - pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	milk from horses	2	0	detection	Listeria monocytogenes	2	0
	Milk from other animal species or unspecified - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	milk from camels	3	0	detection	Listeria monocytogenes	3	0
					milk from donkeys	3	0	detection	Listeria monocytogenes	3	0
					milk from horses	33	0	detection	Listeria monocytogenes	33	0
	Milk, cows' - pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	124	0	detection	Listeria monocytogenes	124	0
	Milk, cows' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	N_A	1	0	detection	Listeria monocytogenes	1	0
	Milk, cows' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	10	Gram	N_A	99	1	<= 100	Listeria monocytogenes	1	1
								>100	Listeria monocytogenes	1	0
	Milk, cows' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	99	1	detection	Listeria monocytogenes	99	1
	Milk, goats' - pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	N_A	6	0	detection	Listeria monocytogenes	6	0
	Milk, goats' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	5	0	detection	Listeria monocytogenes	5	0
	Milk, sheep's - pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	N_A	2	0	detection	Listeria monocytogenes	2	0
	Molluscan shellfish - cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	7	0	<= 100	Listeria monocytogenes	7	0
								>100	Listeria monocytogenes	7	0
	Molluscan shellfish - cooked - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	7	0	detection	Listeria monocytogenes	7	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
Not Available	Mushrooms - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	78	0	<= 100	Listeria monocytogenes	78	0
								>100	Listeria monocytogenes	78	0
	Mushrooms - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	78	0	detection	Listeria monocytogenes	78	0
	Ready-to-eat salads - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	264	0	<= 100	Listeria monocytogenes	264	0
								>100	Listeria monocytogenes	264	0
	Vegetables - leaves - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	32	0	detection	Listeria monocytogenes	32	0
	Vegetables - leaves - Wholesale - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	19	0	detection	Listeria monocytogenes	19	0
	Vegetables - pre-cut - non-ready-to-eat - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	280	0	<= 100	Listeria monocytogenes	280	0
								>100	Listeria monocytogenes	280	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	810	0	<= 100	Listeria monocytogenes	810	0
								>100	Listeria monocytogenes	810	0

Table Lyssavirus:LYSSAVIRUS in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Bats - wild - Natural habitat - Not Available - Not Available - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	55	5	European bat lyssavirus 1	5
	Cats - Veterinary clinics - Not Available - Not Available - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	7	0	Lyssavirus	0
	Dogs - Veterinary clinics - Not Available - Not Available - Clinical investigations - Official sampling - Suspect sampling	N_A	Not Available	animal	2	0	Lyssavirus	0

Table Mycobacterium:MYCOBACTERIUM in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Pigs - breeding animals - unspecified - piglets - Farm - Not Available - Not Available - Clinical investigations - HACCP and own check - Not specified	N_A	Not Available	animal	2048	0	Mycobacterium	0

Table Salmonella: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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cats - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	61	2	Salmonella group B	2
	Cattle (bovine animals) - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	Pathology	Not Available	2306	142	Salmonella Dublin	47
									Salmonella spp., unspecified	51
									Salmonella Typhimurium	44
	Cattle (bovine animals) - Farm - Not Available - Not Available - Control and eradication programmes - Not applicable - Selective sampling	animal		N_A	Faeces	Not Available	7217	523	Salmonella Dublin	86
									Salmonella spp., unspecified	333
									Salmonella Typhimurium	104
	Dogs - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	421	8	Salmonella group B	1
									Salmonella group C	5
									Salmonella group D	2
	Elephants - zoo animals - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	2	1	Salmonella	1
	Fish - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	54	1	Salmonella group B	1
	Gallus gallus (fowl) - breeding flocks, unspecified - adult - Farm - Not Available - environmental sample - boot swabs - Control and eradication programmes - Official and industry sampling - Census	herd/flock		Y	N_A	Not Available	1699	34	Salmonella Agona	4
									Salmonella Enteritidis	9
									Salmonella Goldcoast	1
									Salmonella group B	1
									Salmonella group C	2
									Salmonella group E	2
									Salmonella Infantis	2
									Salmonella Kottbus	1
									Salmonella Livingstone	1
									Salmonella Mbandaka	1
									Salmonella Not typeable	4
									Salmonella Paratyphi B	1
									Salmonella Rissen	1
									Salmonella Senftenberg	2
									Salmonella spp., unspecified	1
									Salmonella Typhimurium	1
	Gallus gallus (fowl) - broilers - before slaughter - Farm - Not Available - environmental sample - boot swabs - Control and eradication programmes - Official and industry sampling - Census	herd/flock		Y	N_A	Not Available	17004	1207	Salmonella 1,4,[5],12:i:-	4
									Salmonella Agona	15
									Salmonella Brandenburg	3
									Salmonella Corvallis	4
									Salmonella Derby	4
									Salmonella Duisburg	1
									Salmonella enterica	1
									Salmonella Enteritidis	16
									Salmonella Gaminara	1
									Salmonella group B	11
									Salmonella group C	11
									Salmonella group D	4
									Salmonella group G	2
									Salmonella Indiana	15
									Salmonella Infantis	427
									Salmonella Kedougou	8
									Salmonella Kentucky	1
									Salmonella Leeuwarden	1
									Salmonella Livingstone	75
									Salmonella Mbandaka	21
									Salmonella Minnesota	4
									Salmonella Montevideo	3
									Salmonella Muenchen	1
									Salmonella Not typeable	3
									Salmonella Ohio	25
									Salmonella Paratyphi B	289
									Salmonella Sandiego	2

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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Gallus gallus (fowl) - broilers - before slaughter - Farm - Not Available - environmental sample - boot swabs - Control and eradication programmes - Official and industry sampling - Census	herd/flock		Y	N_A	Not Available	17004	1207	Salmonella Senftenberg	1
									Salmonella spp., unspecified	208
									Salmonella Typhimurium	12
									Salmonella Virchow	33
									Salmonella Yoruba	1
	Gallus gallus (fowl) - laying hens - adult - Farm - Not Available - environmental sample - boot swabs - Control and eradication programmes - Official and industry sampling - Census	herd/flock		Y	N_A	Not Available	2547	88	Salmonella Agona	2
									Salmonella Braenderup	3
									Salmonella Brandenburg	1
									Salmonella Enteritidis	47
									Salmonella group C	1
									Salmonella group D	1
									Salmonella Infantis	3
									Salmonella Kedougou	1
									Salmonella Livingstone	1
									Salmonella Mbandaka	4
									Salmonella Not typeable	5
									Salmonella Paratyphi B	3
									Salmonella Senftenberg	1
									Salmonella spp., unspecified	11
									Salmonella Tennessee	1
									Salmonella Typhimurium	3
	Goats - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	animal		N_A	Pathology	Not Available	355	6	Salmonella Typhimurium	6
	Gulls - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	1	1	Salmonella group B	1
	Hedgehogs - zoo animal - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	11	5	Salmonella group D	5
	Lion - zoo animals - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	7	2	Salmonella group B	1
									Salmonella group G	1
	Monkeys - zoo animal - Zoo - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	26	1	Salmonella	1
	Parrots - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	1	1	Salmonella group D	1
	Pigeons - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	15	2	Salmonella group B	2
	Pigs - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	4	1	Salmonella group B	1
	Pigs - fattening pigs - Farm - Not Available - Not Available - Monitoring - active - Industry sampling - Not specified	animal		N_A	N_A	Not Available	2048	20	Salmonella spp., unspecified	20
	Pigs - fattening pigs - Farm - Not Available - Not Available - Surveillance - Official sampling - Objective sampling	herd/flock		N_A	N_A	ISO 6579:2002/Amd 1:2007	88	10	Salmonella Infantis	1
									Salmonella London	1
									Salmonella Panama	1
									Salmonella Typhimurium	3
									Salmonella Typhimurium, monophasic	4
	Pigs - fattening pigs - Slaughterhouse - Not Available - Not Available - Monitoring - active - Industry sampling - Not specified	slaughter animal batch		N_A	N_A	Not Available	47418	23381	Salmonella spp., unspecified	23,381
	Reptiles - farmed - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	4	2	Salmonella	2
	Sheep - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	animal		N_A	Pathology	Not Available	353	0	Salmonella	0
	Solipeds, domestic - horses - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		N_A	N_A	Not Available	287	12	Salmonella group B	12
	Turkeys - fattening flocks - before slaughter - Farm - Not Available - environmental sample - boot swabs - Control and eradication programmes - Official and industry sampling - Census	herd/flock		Y	N_A	Not Available	477	2	Salmonella Typhimurium	2

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cheeses made from cows' milk - fresh - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	21	0	Salmonella	0
	Cheeses made from cows' milk - fresh - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	18	0	Salmonella	0
	Cheeses made from cows' milk - hard - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	1	0	Salmonella	0
	Cheeses made from cows' milk - hard - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	769	0	Salmonella	0
	Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	437	1	Salmonella	1
	Cheeses made from cows' milk - hard - made from raw or low heat-treated milk - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	5x25	Detection method of microorganisms	104	0	Salmonella	0
	Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	91	0	Salmonella	0
	Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	17	0	Salmonella	0
	Cheeses made from cows' milk - soft and semi-soft - made from raw or low heat-treated milk - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	5x25	Detection method of microorganisms	22	0	Salmonella	0
	Cheeses, made from unspecified milk or other animal milk - spreadable - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	135	0	Salmonella	0
	Crustaceans - lobsters - cooked - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	slaughter animal batch	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	2	0	Salmonella	0
	Crustaceans - lobsters - cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	11	0	Salmonella	0
	Crustaceans - shrimps - cooked - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	19	0	Salmonella	0
	Crustaceans - shrimps - cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	85	0	Salmonella	0
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Bangladesh - Not Available - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	103	1	Salmonella Weltevreden	1
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Vietnam - Not Available - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	103	1	Salmonella Aberdeen	1
	Dairy products (excluding cheeses) - butter - made from raw or low heat-treated milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	16	0	Salmonella	0
	Dairy products (excluding cheeses) - butter - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	40	0	Salmonella	0
	Dairy products (excluding cheeses) - cheese analogue - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	55	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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Dairy products (excluding cheeses) - chocolate milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	6	0	Salmonella	0
				Millilitre	objective sampling by COKZ for export certification	Detection method of microorganisms	8	0	Salmonella	0
	Dairy products (excluding cheeses) - cream - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	6	0	Salmonella	0
	Dairy products (excluding cheeses) - cream - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	15	0	Salmonella	0
	Dairy products (excluding cheeses) - dairy products, not specified - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	18	0	Salmonella	0
				Millilitre	objective sampling by COKZ for export certification	Detection method of microorganisms	48	0	Salmonella	0
	Dairy products (excluding cheeses) - fermented dairy products - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	8	0	Salmonella	0
				Millilitre	N_A	Detection method of microorganisms	16	0	Salmonella	0
	Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	252	0	Salmonella	0
	Dairy products (excluding cheeses) - ice-cream - made from pasteurised milk - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	21	0	Salmonella	0
	Dairy products (excluding cheeses) - milk powder and whey powder - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	5	0	Salmonella	0
	Dairy products (excluding cheeses) - milk powder and whey powder - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	491	0	Salmonella	0
	Fish - raw - frozen - Border Control Posts - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	200	0	Salmonella	0
	Fish - smoked - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	4	0	Salmonella	0
	Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	25	0	Salmonella	0
	Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	52	0	Salmonella	0
	Fruits - products - dried - Wholesale - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	99	0	Salmonella	0
	Infant formula - dried - intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	10x 25g	Detection method of microorganisms	25	0	Salmonella	0
	Infant formula - dried - intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	83	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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Infant formula - dried - intended for infants below 6 months - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	objective sampling by COKZ for export certification	Detection method of microorganisms	31	0	Salmonella	0
	Infant formula - dried - Processing plant - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Gram	10x 25g	Detection method of microorganisms	23	0	Salmonella	0
	Infant formula - dried - Processing plant - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	47	0	Salmonella	0
					objective sampling by COKZ for export certification	Detection method of microorganisms	5	0	Salmonella	0
	Live bivalve molluscs - mussels - depurated - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	53	1	Salmonella Braenderup	1
	Live bivalve molluscs - mussels - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	63	0	Salmonella	0
	Live bivalve molluscs - oysters - depurated - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	52	1	Salmonella Typhimurium	1
	Live bivalve molluscs - oysters - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	33	0	Salmonella	0
	Live bivalve molluscs - oysters - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	13	0	Salmonella	0
	Live bivalve molluscs - unspecified - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	26	0	Salmonella	0
	Meat from bovine animals - carcase - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	slaughter animal batch	400	Square centimetre	N_A	ISO 6579:2002/Amd 1:2007	48	2	Salmonella Dublin	2
	Meat from bovine animals - carcase - Slaughterhouse - Not Available - food sample - carcase swabs - Surveillance - based on Regulation 2073 - Official, based on Regulation 854/2004 - Objective sampling	single (food/feed)	400	Square centimetre	N_A	Not Available	5	0	Salmonella spp., unspecified	0
	Meat from bovine animals - fresh - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	497	4	Salmonella Dublin	2
									Salmonella Infantis	1
									Salmonella Typhimurium	1
	Meat from bovine animals - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	171	3	Salmonella Dublin	1
									Salmonella Newport	1
									Salmonella Typhimurium, monophasic	1
	Meat from bovine animals - meat preparation - intended to be eaten raw - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	289	1	Salmonella Dublin	1
	Meat from bovine animals and pig - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	4	0	Salmonella	0
	Meat from broilers (Gallus gallus) - carcase - spent hens - Slaughterhouse - Not Available - food sample - carcase swabs - Surveillance - Industry sampling - Objective sampling	slaughter animal batch	100	Square centimetre	N_A	Not Available	5763	452	Salmonella Agona	8
									Salmonella Enteritidis	8
									Salmonella group B	47
									Salmonella group C	60
									Salmonella group D	5
									Salmonella Indiana	42
									Salmonella Infantis	181
									Salmonella Java	87
									Salmonella Mbandaka	2
									Salmonella Typhimurium	9
									Salmonella Virchow	3
	Meat from broilers (Gallus gallus) - carcase - spent hens - Slaughterhouse - Not Available - food sample - carcase swabs - Surveillance - Official sampling - Objective sampling	slaughter animal batch	100	Square centimetre	N_A	Not Available	266	39	Salmonella Braenderup	1
									Salmonella Indiana	8
									Salmonella Infantis	19

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Meat from broilers (Gallus gallus) - carcase - spent hens - Slaughterhouse - Not Available - food sample - carcase swabs - Surveillance - Official sampling - Objective sampling	slaughter animal batch	100	Square centimetre	N_A	Not Available	266	39	Salmonella Java	9
									Salmonella Saphra	1
									Salmonella spp., unspecified	1
	Meat from broilers (Gallus gallus) - fresh - chilled - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	n=5	ISO 6579:2002/Amd 1:2007	25	2	Salmonella Infantis	2
	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	237	7	Salmonella Infantis	5
									Salmonella Paratyphi	1
									Salmonella Typhimurium	1
	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	n=5	ISO 6579:2002/Amd 1:2007	15	2	Salmonella Infantis	2
	Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	299	6	Salmonella Indiana	1
									Salmonella Infantis	3
									Salmonella Paratyphi	1
									Salmonella Virchow	1
	Meat from goat - fresh - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	4	0	Salmonella	0
	Meat from other animal species or not specified - fresh - frozen - Wholesale - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	49	3	Salmonella Bovismorbificans	1
									Salmonella spp., unspecified	2
	Meat from pig - carcase - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	slaughter animal batch	400	Square centimetre	N_A	ISO 6579:2002/Amd 1:2007	84	3	Salmonella Derby	1
									Salmonella Livingstone	1
									Salmonella Typhimurium, monophasic	1
	Meat from pig - carcase - Slaughterhouse - Not Available - food sample - carcase swabs - Surveillance - based on Regulation 2073 - Industry sampling - Objective sampling	single (food/feed)	100	Square centimetre	N_A	Not Available	9613	272	Salmonella spp., unspecified	272
	Meat from pig - carcase - Slaughterhouse - Not Available - food sample - carcase swabs - Surveillance - based on Regulation 2073 - Official, based on Regulation 854/2004 - Objective sampling	single (food/feed)	400	Square centimetre	N_A	Not Available	383	22	Salmonella Agona	1
									Salmonella Brandenburg	1
									Salmonella Derby	5
									Salmonella Heidelberg	1
									Salmonella Livingstone	1
									Salmonella spp., unspecified	1
									Salmonella Typhimurium	9
									Salmonella Typhimurium, monophasic	3
	Meat from pig - fresh - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	296	3	Salmonella Typhimurium	3
	Meat from pig - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	127	0	Salmonella	0
	Meat from sheep - fresh - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	239	1	Salmonella spp., unspecified	1
	Meat from turkey - fresh - chilled - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	n=5	ISO 6579:2002/Amd 1:2007	2	0	Salmonella	0
	Meat from turkey - fresh - chilled - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	14	0	Salmonella	0
	Meat from turkey - meat preparation - intended to be eaten cooked - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	n=5	ISO 6579:2002/Amd 1:2007	1	0	Salmonella	0
	Meat from turkey - meat preparation - intended to be eaten cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	5	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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Milk from other animal species or unspecified - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	milk from camels	Detection method of microorganisms	3	0	Salmonella	0
					milk from donkeys	Detection method of microorganisms	3	0	Salmonella	0
					milk from horses	Detection method of microorganisms	33	0	Salmonella	0
	Milk, cows' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - based on Regulation 2073 - Official sampling - Objective sampling	batch (food/feed)	25	Millilitre	N_A	Detection method of microorganisms	1	0	Salmonella	0
	Milk, cows' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	99	0	Salmonella	0
	Milk, goats' - raw milk - intended for direct human consumption - Farm - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	N_A	Detection method of microorganisms	5	0	Salmonella	0
	Molluscan shellfish - cooked - Processing plant - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	12	0	Salmonella	0
	Molluscan shellfish - cooked - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	7	0	Salmonella	0
	Mushrooms - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	78	0	Salmonella	0
	Ready-to-eat salads - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	264	0	Salmonella	0
	Seeds, dried - Wholesale - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	164	0	Salmonella	0
	Spices and herbs - dried - Wholesale - India - Not Available - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO 6579:2002/Amd 1:2007	63	2	Salmonella Bareilly	1
									Salmonella Newport	1
	Spices and herbs - dried - Wholesale - Vietnam - Not Available - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO 6579:2002/Amd 1:2007	63	1	Salmonella Caracas	1
	Spices and herbs - fresh - Wholesale - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	batch (food/feed)	25	Gram	n=5	ISO 6579:2002/Amd 1:2007	52	1	Salmonella Typhimurium, monophasic	1
	Vegetables - pre-cut - non-ready-to-eat - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	280	0	Salmonella	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	819	1	Salmonella spp., unspecified	1
	Vegetables - products - dried - Retail - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	32	0	Salmonella	0
	Vegetables - products - dried - Wholesale - Not Available - Not Available - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	ISO 6579:2002/Amd 1:2007	19	0	Salmonella	0

Table Salmonella: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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Compound feedingstuffs for cattle - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	1812	6	Salmonella	4
									Salmonella Agona	1
									Salmonella Senftenberg	1
	Compound feedingstuffs for horses - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	55	0	Salmonella	0
	Compound feedingstuffs for pigs - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	1863	1	Salmonella	1
	Compound feedingstuffs for poultry (non specified) - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	971	2	Salmonella Havana	1
									Salmonella Livingstone	1
	Compound feedingstuffs for poultry, breeders - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	2002	2	Salmonella	2
	Compound feedingstuffs for poultry, broilers - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	2236	1	Salmonella Ohio	1
	Compound feedingstuffs for poultry, laying hens - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	2674	29	Salmonella	14
									Salmonella 1,4,[5],12:i:-	2
									Salmonella Agona	1
									Salmonella Cubana	1
									Salmonella enterica	1
									Salmonella Havana	1
									Salmonella Infantis	1
									Salmonella Livingstone	1
									Salmonella Mbandaka	2
									Salmonella Not typeable	1
									Salmonella Senftenberg	2
									Salmonella Stourbridge	1
									Salmonella Typhimurium	1
	Compound feedingstuffs for rabbits - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	16	0	Salmonella	0
	Compound feedingstuffs for sheep - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	46	1	Salmonella	1
	Compound feedingstuffs for turkeys - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	58	0	Salmonella	0
	Compound feedingstuffs, not specified - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	170	0	Salmonella	0
	Feed material of cereal grain origin - barley derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	42	0	Salmonella	0
	Feed material of cereal grain origin - maize derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	209	2	Salmonella	1
									Salmonella Cubana	1
	Feed material of cereal grain origin - oat derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	41	0	Salmonella	0
	Feed material of cereal grain origin - other cereal grain derived - by-products of brewing and distilling - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	45	0	Salmonella	0
	Feed material of cereal grain origin - other cereal grain derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	3	0	Salmonella	0
	Feed material of cereal grain origin - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Feed material of cereal grain origin - rice derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	15	1	Salmonella	1
	Feed material of cereal grain origin - wheat derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	192	0	Salmonella	0
	Feed material of land animal origin - blood products - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	42	0	Salmonella	0
	Feed material of land animal origin - bone meal - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	1	0	Salmonella	0
	Feed material of land animal origin - dairy products - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	5	0	Salmonella	0
	Feed material of land animal origin - dairy products - whey powder - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	17	0	Salmonella	0
	Feed material of land animal origin - egg powder - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	1	0	Salmonella	0
	Feed material of land animal origin - protein meal - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	10	0	Salmonella	0
	Feed material of marine animal origin - other fish products - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	9	0	Salmonella	0
	Feed material of oil seed or fruit origin - linseed derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	14	0	Salmonella	0
	Feed material of oil seed or fruit origin - other oil seeds derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	4	0	Salmonella	0
	Feed material of oil seed or fruit origin - palm kernel derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	17	4	Salmonella	3
									Salmonella Derby	1
	Feed material of oil seed or fruit origin - rape seed derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	380	0	Salmonella	0
	Feed material of oil seed or fruit origin - soya (bean) derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	1031	14	Salmonella	7
									Salmonella Anatum	1
									Salmonella Oranienburg	1
									Salmonella Orion	1
									Salmonella Rissen	1
									Salmonella Schwarzengrund	1
									Salmonella Typhimurium	1
									Salmonella Yoruba	1
	Feed material of oil seed or fruit origin - sunflower seed derived - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	316	2	Salmonella	2
	Other feed material - legume seeds and similar products - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	17	0	Salmonella	0
	Other feed material - plants - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	8	0	Salmonella	0
	Other feed material - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	91	0	Salmonella	0
	Other feed material - sugarcane and byproducts - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	4	0	Salmonella	0
	Pet food - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	25	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	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Premixtures - process control - Processing plant - Not Available - Not Available - Monitoring - HACCP and own check - Objective sampling	batch (food/feed)	25	Gram	N_A	Not Available	54	0	Salmonella	0

Table Staphylococcus:STAPHYLOCOCCUS AUREUS METICILLIN RESISTANT (MRSA) in animal

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	Total Units Tested Attribute	Total Units Positive Attribute	Zoonoses	CC	Spa type	ML	Units positive
Not Available	Cats - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		Not Available	N_A	Not Available	428	2	Methicillin resistant Staphylococcus aureus (MRSA)				2
	Dogs - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		Not Available	N_A	Not Available	874	5	Methicillin resistant Staphylococcus aureus (MRSA)				5
	Other animals - unspecified - Farm - Not Available - environmental sample - dust - Surveillance - Official sampling - Objective sampling	herd/flock		Not Available	dust swab n=3	Detection method of microorganisms	89	66	Methicillin resistant Staphylococcus aureus (MRSA)				66
	Solipeds, domestic - horses - Farm - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	animal		Not Available	N_A	Not Available	270	33	Methicillin resistant Staphylococcus aureus (MRSA)				33

Table Staphylococcus:STAPHYLOCOCCUS AUREUS METICILLIN RESISTANT (MRSA) in food

Area of sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	Total Units Tested Attribute	Total Units Positive Attribute	Zoonoses	CC	Spa type	ML	Units positive
Not Available	Meat from bovine animals - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method presence in x g	286	11	Methicillin resistant Staphylococcus aureus (MRSA)				11
	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method presence in x g	237	41	Methicillin resistant Staphylococcus aureus (MRSA)				41
	Meat from pig - fresh - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method presence in x g	296	25	Methicillin resistant Staphylococcus aureus (MRSA)				25
	Meat from turkey - fresh - chilled - Retail - Not Available - food sample - meat - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method presence in x g	14	9	Methicillin resistant Staphylococcus aureus (MRSA)				9

Table Toxoplasma:TOXOPLASMA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cats - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	91	24	Toxoplasma spp., unspecified	24
	Dogs - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	244	50	Toxoplasma spp., unspecified	50
	Goats - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	355	2	Toxoplasma spp., unspecified	2
	Sheep - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	353	3	Toxoplasma spp., unspecified	3

Table Trichinella:TRICHINELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Pigs - fattening pigs - raised under controlled housing conditions - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Objective sampling	N_A	Not Available	animal	15782576	0	Trichinella	0
	Solipeds, domestic - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Objective sampling	N_A	Not Available	animal	2020	0	Trichinella	0
	Wild boars - wild - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Objective sampling	N_A	Not Available	animal	5012	0	Trichinella	0

Table Vibrio:VIBRIO in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Sampling Details	Method	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Crustaceans - shrimps - raw - frozen - Border Control Posts - Bangladesh - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	16	6	Vibrio cholerae	1
									Vibrio parahaemolyticus	4
									Vibrio vulnificus	1
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Ecuador - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	14	9	Vibrio cholerae	4
									Vibrio parahaemolyticus	5
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Honduras - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	4	3	Vibrio cholerae	1
									Vibrio parahaemolyticus	1
									Vibrio vulnificus	1
	Crustaceans - shrimps - raw - frozen - Border Control Posts - India - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	21	6	Vibrio cholerae	3
									Vibrio parahaemolyticus	3
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Indonesia - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	3	1	Vibrio parahaemolyticus	1
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Philippines - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	1	0	Vibrio	0
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Thailand - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	2	0	Vibrio	0
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Venezuela - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	2	2	Vibrio cholerae	2
	Crustaceans - shrimps - raw - frozen - Border Control Posts - Vietnam - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	33	3	Vibrio parahaemolyticus	3
	Fish - raw - frozen - Border Control Posts - Vietnam - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	186	1	Vibrio cholerae	1
	Vegetables - leaves - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	25	Gram	N_A	Detection method of microorganisms	29	0	Vibrio	0

Table Yersinia:YERSINIA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling Details	Method	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Cats - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	1385	2	Yersinia pseudotuberculosis	2
	Cattle (bovine animals) - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	Milk	Not Available	animal	6702	0	Yersinia	0
		Pathology	Not Available	animal	2306	2	Yersinia pseudotuberculosis	2
	Goats - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	355	2	Yersinia, unspecified sp.	2
	Hares - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	27	11	Yersinia enterocolitica	1
							Yersinia pseudotuberculosis	10
	Monkeys - zoo animal - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	1	1	Yersinia pseudotuberculosis	1
	Other animals - exotic pet animals - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	4	3	Yersinia pseudotuberculosis	3
	Pigs - breeding animals - unspecified - piglets - Farm - Not Available - Not Available - Clinical investigations - HACCP and own check - Suspect sampling	N_A	Not Available	animal	2048	0	Yersinia	0
	Raccoons - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	30	1	Yersinia enterocolitica	1
	Sheep - Farm - Netherlands - Not Available - Clinical investigations - HACCP and own check - Not specified	Pathology	Not Available	animal	353	3	Yersinia, unspecified sp.	3
	Squirrels - Veterinary clinics - Not Available - Not Available - Clinical investigations - Not applicable - Suspect sampling	N_A	Not Available	animal	1	1	Yersinia enterocolitica	1

FOODBORNE OUTBREAKS TABLES

Foodborne Outbreaks: summarized data

when numbers referring to cases, hospitalized people and deaths are reported as unknown, they will be not included in the sum calculation

		Outbreak strenght	Strong				Weak			
Causative agent	Food vehicle		N outbreaks	N human cases	N hospitalized	N deaths	N outbreaks	N human cases	N hospitalized	N deaths
Campylobacter coli	Unknown						1	2	0	0
Campylobacter jejuni	Unknown						2	6	2	0
Campylobacter, unspecified sp.	Unknown						4	9	0	0
Giardia	Unknown						1	2	0	0
Histamine	Fish and fish products		1	2	2	0				
Listeria monocytogenes	Unknown						1	2	2	0
	Meat and meat products		1	35	34	6				
Norovirus	Crustaceans, shellfish, molluscs and products thereof		1	7	0	0				
	Sweets and chocolate		1	23	0	0				
	Bakery products		1	55	0	0				
	Unknown						14	290	0	0
Parasites	Unknown						1	2	0	0
Salmonella Enteritidis	Eggs and egg products		2	104	0	0				
	Unknown						3	11	2	0
Salmonella Muenchen	Unknown						1	11	0	0
Salmonella spp., unspecified	Unknown						5	14	0	0
Salmonella Typhimurium	Unknown						1	2	0	0
Salmonella Virchow	Broiler meat (Gallus gallus) and products thereof		1	6	0	0				
Unknown	Unknown						693	2,475	0	0

Strong Foodborne Outbreaks: detailed data

Causative agent	H	AG	VT	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
Histamine	unk	Not Available	Not Available	Not Available	1364898	General	Fish and fish products	tuna	Descriptive epidemiological evidence	Canteen or workplace catering	Canteen or workplace catering	Not Available	Storage time/temperature abuse	N_A	1	2	2	0
Listeria monocytogenes	unk	Not Available	Not Available	Not Available	1353846	General	Meat and meat products	cold cuts	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Multiple places of exposure in one country	Processing plant	Netherlands	Other contributory factor	N_A	1	35	34	6
Norovirus	unk	Not Available	Not Available	Not Available	1361320	General	Crustaceans, shellfish, molluscs and products thereof	oysters	Detection of causative agent in food vehicle or its component - Symptoms and onset of illness pathognomonic to causative agent	Restaurant or Cafe or Pub or Bar or Hotel or Catering service	Restaurant or Cafe or Pub or Bar or Hotel or Catering service	Not Available	Unprocessed contaminated ingredient	N_A	1	7	0	0
					1409028	General	Sweets and chocolate	bonbons	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Residential institution (nursing home or prison or boarding school)	Residential institution (nursing home or prison or boarding school)	Netherlands	Infected food handler	N_A	1	23	0	0
					23	General	Bakery products	cookies	Descriptive epidemiological evidence	School or kindergarten	School or kindergarten	Netherlands	Infected food handler	N_A	1	55	0	0
Salmonella Enteritidis	unk	Not Available	Not Available	Not Available	1413982	General	Eggs and egg products	eggs	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Multiple places of exposure in one country	Farm	Spain	Unknown	N_A	1	53	unk	unk

Causative agent	H	AG	VT	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
Salmonella Enteritidis	unk	Not Available	Not Available	Not Available	1444574	General	Eggs and egg products	eggs	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Multiple places of exposure in more than one country	Farm	Netherlands	Unknown	N_A	1	51	unk	unk
Salmonella Virchow	unk	Not Available	Not Available	Not Available	1444594	General	Broiler meat (Gallus gallus) and products thereof	chicken	Detection of causative agent in food chain or its environment - Detection of indistinguishable causative agent in humans	Multiple places of exposure in one country	Unknown	Brazil	Unknown	N_A	1	6	unk	unk

Weak Foodborne Outbreaks: detailed data

Causative agent	H	AG	VT	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
Campylobacter coli	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	1	2	0	0
Campylobacter jejuni	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	2	6	2	0
Campylobacter, unspecified sp.	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	4	9	0	0
Giardia	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	1	2	0	0
Listeria monocytogenes	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	1	2	2	unk
Norovirus	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	14	290	unk	0
Parasites	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	1	2	0	0
Salmonella Enteritidis	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	3	11	2	0
Salmonella Muenchen	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	1	11	unk	unk
Salmonella spp., unspecified	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	5	14	unk	unk
Salmonella Typhimurium	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	1	2	0	0
Unknown	unk	Not Available	Not Available	Not Available	N_A	Unknown	Unknown	N_A	Unknown	Not Available	Not Available	Not Available	Not Available	N_A	693	2,475	unk	unk

ANTIMICROBIAL RESISTANCE TABLES FOR CAMPYLOBACTER

Table Antimicrobial susceptibility testing of Campylobacter coli in Meat from turkey - 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: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**1**	**0**	**0**
0.25				1			
<=0.5							1
0.5						1	
4			1				
16		1					
>64					1		

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

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**59**	**59**	**59**	**59**	**59**	**59**
MIC	**N of resistant isolates**	**7**	**4**	**0**	**7**	**47**	**50**
<=0.12		51		27			
0.25				31			
<=0.5							9
0.5		1		1		1	
<=1			49		1		
1						10	
2		2	6		22	1	
4		2			26		
8		3			1	8	1
16					2	30	
>16						9	
32							4
64					3		17
>64					4		28
128			1				
>128			3				

Table Antimicrobial susceptibility testing of Campylobacter coli in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**4**	**4**	**4**	**4**	**4**	**4**
MIC	**N of resistant isolates**	**3**	**1**	**0**	**3**	**0**	**1**
<=0.12		1		3			
0.25				1			
<=0.5							3
0.5						3	
<=1			3				
1						1	
2					1		
4		1					
8		2					
64					1		
>64					2		1
>128			1				

Table Antimicrobial susceptibility testing of Campylobacter coli in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**5**	**5**	**5**	**5**	**5**	**5**
MIC	**N of resistant isolates**	**5**	**0**	**0**	**5**	**2**	**4**
<=0.12				3			
0.25				2			
<=0.5							1
0.5						2	
<=1			5				
1						1	
4		2					
8		1					
16		2				1	
>16						1	
64					4		
>64					1		4

Table Antimicrobial susceptibility testing of Campylobacter coli in Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**7**	**7**	**7**	**7**	**7**	**7**
MIC	**N of resistant isolates**	**6**	**0**	**0**	**6**	**0**	**4**
<=0.12		1		6			
0.25				1			
<=0.5							3
0.5						6	
<=1			7				
1						1	
2		2			1		
4		3					
8		1					
32							1
64					4		1
>64					2		2

Table Antimicrobial susceptibility testing of Campylobacter coli in Meat from broilers (Gallus gallus) - 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: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**20**	**20**	**20**	**20**	**20**	**20**
MIC	**N of resistant isolates**	**16**	**1**	**0**	**16**	**2**	**12**
<=0.12		4		14			
<=0.25						1	
0.25				6			
<=0.5							8
0.5						13	
<=1			17				
1						4	
2		1	2		3		
4		8			1		
8		6					
16		1				1	
>16						1	
64					9		4
>64					7		8
>128			1				

Table Antimicrobial susceptibility testing of Campylobacter coli in Gallus gallus (fowl) - broilers

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**94**	**94**	**94**	**94**	**94**	**94**
MIC	**N of resistant isolates**	**76**	**1**	**0**	**76**	**4**	**69**
<=0.12		11					
0.25		7		56			
<=0.5							22
0.5				37			
<=1			63				
1				1		57	2
2			24			33	1
4		9	5		8		
8		42	1		8		
16		21			2		
>16		4				4	
>64					76		69
>128			1				

Table Antimicrobial susceptibility testing of Campylobacter coli in Ready-to-eat salads

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**1**	**0**	**1**
<=0.12				1			
0.5						1	
<=1			1				
16		1					
>64					1		1

Table Antimicrobial susceptibility testing of Campylobacter coli in Gallus gallus (fowl) - broilers - during rearing period

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**1**	**0**	**3**
<=0.12		2		1			
0.25				2			
0.5						1	
<=1			2				
1						2	
2			1		1		
8		1			1		
>64					1		3

Table Antimicrobial susceptibility testing of Campylobacter coli in Meat from broilers (Gallus gallus) - carcase - chilled

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**6**	**6**	**6**	**6**	**6**	**6**
MIC	**N of resistant isolates**	**6**	**0**	**0**	**6**	**1**	**3**
<=0.12				5			
0.25				1			
<=0.5							3
0.5						4	
<=1			6				
1						1	
4		4					
8		2					
16						1	
64					6		2
>64							1

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from sheep - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**1**	**0**	**0**
<=0.12				1			
<=0.25						1	
<=0.5							1
<=1			1				
4		1					
>64					1		

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from turkey - fresh - chilled

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**1**	**0**	**0**
<=0.12				1			
<=0.5							1
0.5						1	
<=1			1				
4		1					
64					1		

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from turkey - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**2**	**0**	**0**	**2**	**0**	**1**
<=0.12		1		3			
<=0.25						3	
<=0.5							2
<=1			3				
2					1		
4		1					
8		1					
>64					2		1

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**14**	**14**	**14**	**14**	**14**	**14**
MIC	**N of resistant isolates**	**11**	**0**	**0**	**11**	**1**	**8**
<=0.12		3		14			
<=0.25						5	
<=0.5							6
0.5						8	
<=1			14		1		
2					2		
4		5					
8		4					
16		2					1
>16						1	
64					1		1
>64					10		6

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**40**	**40**	**40**	**40**	**40**	**40**
MIC	**N of resistant isolates**	**28**	**1**	**0**	**28**	**2**	**25**
<=0.12		12		40			
<=0.25						14	
<=0.5							15
0.5						24	
<=1			39		1		
2					11		
4		14					
8		12	1				2
16		2				1	
>16						1	
32							1
64					6		7
>64					22		15

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**4**	**4**	**4**	**4**	**4**	**4**
MIC	**N of resistant isolates**	**3**	**0**	**0**	**3**	**1**	**3**
<=0.12		1		4			
<=0.5							1
0.5						3	
<=1			4				
2					1		
4		2					
16		1					
>16						1	
64							2
>64					3		1

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from broilers (Gallus gallus) - 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: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**42**	**42**	**42**	**42**	**42**	**42**
MIC	**N of resistant isolates**	**25**	**0**	**0**	**25**	**4**	**21**
<=0.12		16		40			
<=0.25						18	
0.25		1		2			
<=0.5							21
0.5						17	
<=1			42		2		
1						3	
2					13		
4		13			2		
8		9					2
16		2					2
>16		1				4	
32					1		3
64					7		2
>64					17		12

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Gallus gallus (fowl) - broilers

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**188**	**188**	**188**	**188**	**188**	**188**
MIC	**N of resistant isolates**	**131**	**0**	**0**	**127**	**14**	**121**
<=0.12		53		32			
<=0.25						1	
0.25		4		142			
<=0.5							65
0.5				14		42	
<=1			122		1		
1						115	2
2			65		15	16	1
4			1		34		
8		34			9		
16		78			2		8
>16		19				14	
32							3
64					1		8
>64					126		101

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Vegetables - pre-cut - non-ready-to-eat

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**1**	**0**	**0**
<=0.12				1			
<=0.5							1
0.5						1	
<=1			1				
4		1					
>64					1		

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Gallus gallus (fowl) - broilers - during rearing period

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**10**	**10**	**10**	**10**	**10**	**10**
MIC	**N of resistant isolates**	**6**	**0**	**0**	**6**	**0**	**5**
<=0.12		4		10			
<=0.5							5
0.5						10	
<=1			10		2		
2					1		
4		3					
8		3			1		2
64					1		
>64					5		3

Table Antimicrobial susceptibility testing of Campylobacter jejuni in Meat from broilers (Gallus gallus) - carcase - chilled

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling details:

	AM substance	Ciprofloxacin	Erythromycin	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	**6**	**6**	**6**	**6**	**6**	**6**
MIC	**N of resistant isolates**	**5**	**0**	**0**	**5**	**2**	**5**
<=0.12		1		6			
<=0.25						2	
<=0.5							1
0.5						2	
<=1			6				
2					1		
4		3					
16		1					
>16		1				2	
64							1
>64					5		4

ANTIMICROBIAL RESISTANCE TABLES FOR SALMONELLA

Table Antimicrobial susceptibility testing of Salmonella Aberdeen in Crustaceans - shrimps - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Vietnam

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1										1	
<=0.5					1				1						
0.5															1
<=1		1						1							
<=2													1		
<=4											1				
4			1												
<=8						1									
32												1			

Table Antimicrobial susceptibility testing of Salmonella Agona in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1				1						
0.5														1	1
2		1						1							
4													1		
<=8						1									
8			1								1				
128												1			

Table Antimicrobial susceptibility testing of Salmonella Bareilly in Spices and herbs - dried

Sampling Stage: Wholesale

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1											
<=0.5					1				1						
0.5														1	1
<=2													1		
2		1						1							
<=4											1				
<=8						1									
8			1												
64												1			

Table Antimicrobial susceptibility testing of Salmonella Bovismorbificans in Meat from other animal species or not specified - fresh - frozen

Sampling Stage: Wholesale

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1										1	
<=0.5					1				1						
0.5															1
<=1		1													
<=2													1		
2								1							
<=4											1				
<=8						1									
8			1												
32												1			

Table Antimicrobial susceptibility testing of Salmonella Braenderup in Live bivalve molluscs - mussels

Sampling Stage: Processing plant

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.064							1								
<=0.25				1											
<=0.5					1				1						
0.5															1
1														1	
2								1							
4		1											1		
8											1				
16			1			1									
32												1			

Table Antimicrobial susceptibility testing of Salmonella Braenderup in Meat from broilers (Gallus gallus) - carcase - chilled

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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	64	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MIC	N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<=0.03										1					
0.03							1								
<=0.25				1										1	
<=0.5					1				1						
0.5															1
<=1		1													
<=2													1		
2								1							
<=4											1				
<=8						1									
8			1												
64												1			

Table Antimicrobial susceptibility testing of Salmonella Brandenburg in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1				1						
0.5														1	1
<=2													1		
2		1													
<=4											1				
4								1							
<=8						1									
16			1												
64												1			

Table Antimicrobial susceptibility testing of Salmonella Caracas in Spices and herbs - dried

Sampling Stage: Wholesale

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1										1	
<=0.5					1				1						
0.5															1
<=2													1		
2	1														
<=4											1				
4								1							
<=8						1									
8			1												
32												1			

Table Antimicrobial susceptibility testing of Salmonella Derby in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**1**	**1**
<=0.015							1								
<=0.03										2					
0.03							4								
0.064										3					
<=0.25				5										2	1
<=0.5					3				2						
0.5														2	3
<=1	1							1							
1					2				3						
<=2													2		
2	4							4						1	
<=4											5				
4													2		
8			3												
16			2			5									
32												1			
>32															1
64												2			
>64													1		
128												1			
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Derby in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1											
<=0.5					1				1						
0.5														1	1
<=2													1		
2		1						1							
<=4											1				
8			1												
16						1									
64												1			

Table Antimicrobial susceptibility testing of Salmonella Dublin in Meat from bovine animals - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.015							1								
0.03							1								
0.064										2					
<=0.25				2										2	
<=0.5					2				2						
0.5															2
<=1		2													
<=2													2		
2								1							
<=4											2				
4			1					1							
<=8						2									
8			1												
32												2			

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

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.015							1								
<=0.03										1					
<=0.25				1										1	
<=0.5					1				1						
0.5															1
<=1		1													
<=2													1		
<=4											1				
<=8						1									
8			1					1							
16												1			

Table Antimicrobial susceptibility testing of Salmonella Dublin 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: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1				1						
0.5														1	1
<=2													1		
2		1													
<=4											1				
<=8						1									
8			1					1							
64												1			

Table Antimicrobial susceptibility testing of Salmonella Dublin in Meat from bovine animals - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.015							1								
0.03							1								
0.064										2					
<=0.25				2										1	
<=0.5					2				2						
0.5														1	2
<=1		2													
<=2													2		
<=4											2				
4			2												
<=8						2									
8								2							
64												2			

Table Antimicrobial susceptibility testing of Salmonella Enteritidis in Eggs - table eggs - shell

Sampling Stage: Packing centre

Sampling Type: food sample

Sampling Context: Unspecified

Sampler: Official sampling

Sampling Strategy: Selective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							2								
0.064										1					
<=0.25				2										2	1
<=0.5					2				1						
0.5															1
<=2													2		
2		2							1						
<=4											2				
4								2							
<=8						2									
8			2												
32												1			
64												1			

Table Antimicrobial susceptibility testing of Salmonella Heidelberg in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**1**	**1**	**0**	**1**	**0**	**1**	**0**	**1**	**1**	**1**	**0**	**0**
<=0.03										1					
<=0.25															1
0.5														1	
1							1								
2								1							
4									1						
>4				1											
<=8						1									
>8					1										
16			1												
>64		1											1		
>128											1				
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Indiana in Meat from broilers (Gallus gallus) - 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: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1										1	
<=0.5					1				1						
0.5															1
<=2													1		
2								1							
<=4											1				
<=8						1									
8			1												
32												1			
>64		1													

Table Antimicrobial susceptibility testing of Salmonella Indiana in Meat from broilers (Gallus gallus) - carcase - chilled

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										4					
0.03							8								
0.064										4					
<=0.25				8										7	4
<=0.5					8				5						
0.5														1	4
<=1		5													
1									3						
<=2													8		
2		3						8							
<=4											7				
4			5												
<=8						8									
8			3								1				
16												1			
32												5			
64												2			

Table Antimicrobial susceptibility testing of Salmonella Infantis in Meat from bovine animals - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**1**
<=0.03										1					
<=0.25				1											
<=0.5									1						
0.5							1								
<=1								1							
1					1										
2														1	
16			1			1									
>32															1
>64		1											1		
>128											1				
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Infantis in Pigs - fattening pigs

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
0.064							1			1					
<=0.25				1											1
<=0.5					1				1						
0.5														1	
2								1							
4			1												
8											1				
64												1			
>64		1											1		
>128						1									

Table Antimicrobial susceptibility testing of Salmonella Infantis in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**2**	**2**	**1**	**0**	**0**
<=0.03										2					
<=0.25				2											1
<=0.5					2				2						
0.5							1							1	1
1							1							1	
2		1						2							
4		1											1		
8			1												
16			1			2									
>64													1		
>128											2				
>1024												2			

Table Antimicrobial susceptibility testing of Salmonella Infantis in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**4**	**4**	**4**	**1**	**3**
<=0.03										4					
0.064							1								
<=0.25				4										1	1
0.25							1								
<=0.5					4				4						
0.5							2							1	
<=1		1						1							
1														1	
<=2			1												
2		3						3						1	
<=8						2									
8			1												
16			2			2									
>32															3
64											1		1		
>64													3		
>128											3				
>1024												4			

Table Antimicrobial susceptibility testing of Salmonella Infantis in Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked

Sampling Stage: Processing plant

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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	64	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	2	2	2	2	2	2	2	2	2	2	2	2	2	2
MIC	N of resistant isolates	0	0	0	0	0	1	0	0	0	1	1	1	0	0
<=0.03										1					
0.03							1								
0.064										1					
<=0.25				2											1
<=0.5					2				2						
0.5							1							1	1
1														1	
<=2													1		
2		1						2							
<=4											1				
4		1													
<=8						1									
8			2												
16						1									
64												1			
>64													1		
>128											1				
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Infantis in Meat from broilers (Gallus gallus) - 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: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**	**1**	**1**	**0**
<=0.03										2					
0.03							1								
0.064							1			1					
<=0.25				3											2
0.25							1								
<=0.5					2				3						
0.5														1	1
<=1	1														
1					1									1	
<=2													1		
2	1							3							
<=4											2				
4	1												1	1	
<=8						1									
8		3													
16						2									
32												1			
64												1			
>64													1		
>128											1				
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Infantis in Meat from broilers (Gallus gallus) - carcase - chilled

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**	**19**
MIC	**N of resistant isolates**	**3**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**	**18**	**18**	**18**	**4**	**10**
<=0.015							1								
<=0.03										18					
0.064										1					
<=0.25				17										1	5
0.25							7								
<=0.5					16				17						
0.5				2			10							3	4
<=1								4							
1					3		1		2					11	
2		8						15						3	
<=4											1				
4		8											1	1	
<=8						5									
8			11												
16			8			14									
>32															10
64												1			
>64		3											18		
128											1				
>128											17				
>1024												18			

Table Antimicrobial susceptibility testing of Salmonella Livingstone in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1										
0.5														1	1
<=1		1													
1									1						
<=2													1		
2								1							
<=4											1				
<=8						1									
8			1												
32												1			

Table Antimicrobial susceptibility testing of Salmonella Livingstone in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1										
0.5															1
1									1						
2		1						1							
4													1	1	
<=8						1									
8			1								1				
64												1			

Table Antimicrobial susceptibility testing of Salmonella London in Pigs - fattening pigs

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1										1	
<=0.5					1				1						
0.5															1
<=2													1		
2		1						1							
<=8						1									
8			1								1				
64												1			

Table Antimicrobial susceptibility testing of Salmonella Newport 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: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.015							1								
<=0.03										1					
<=0.25				1										1	1
<=0.5					1				1						
<=2													1		
2		1						1							
<=4											1				
<=8						1									
8			1												
32												1			

Table Antimicrobial susceptibility testing of Salmonella Newport in Spices and herbs - dried

Sampling Stage: Wholesale

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1										
0.5															1
<=1		1													
1									1						
<=2													1		
<=4											1				
4								1						1	
<=8						1									
16			1												
64												1			

Table Antimicrobial susceptibility testing of Salmonella Panama in Pigs - fattening pigs

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1										1	
<=0.5					1										
0.5															1
1									1						
<=2													1		
2		1						1							
<=4											1				
8			1												
16						1									
32												1			

Table Antimicrobial susceptibility testing of Salmonella Paratyphi in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**1**	**1**	**0**	**0**	**1**
0.064										1					
<=0.25				1											
<=0.5					1										
0.5							1							1	
1									1						
2		1													
4			1					1					1		
<=8						1									
>32															1
>128											1				
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Paratyphi in Meat from broilers (Gallus gallus) - carcase - chilled

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
MIC	**N of resistant isolates**	**5**	**0**	**0**	**0**	**0**	**4**	**3**	**0**	**0**	**3**	**6**	**1**	**1**	**9**
<=0.03										3					
0.03							5								
0.064										6					
0.12							1								
<=0.25				8										2	
<=0.5					8				8						
0.5				1			2							4	
<=1	1														
1					1		1							2	
<=2			1										6		
2	3							6	1					1	
<=4											5				
4			3					2					2		
<=8						6									
8			4					1			1				
16			1			3									
32											1				
>32															9
64												2			
>64	5												1		
128												1			
>128											2				

	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**	**64**	**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	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**	**9**
MIC	**N of resistant isolates**	**5**	**0**	**0**	**0**	**0**	**4**	**3**	**0**	**0**	**3**	**6**	**1**	**1**	**9**
>1024												6			

Table Antimicrobial susceptibility testing of Salmonella Saphra in Meat from broilers (Gallus gallus) - carcase - chilled

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1										
0.5															1
<=1		1													
1									1						
<=2													1		
2								1						1	
<=4											1				
<=8						1									
8			1												
32												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
MIC	**N of resistant isolates**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**4**	**3**	**3**
<=0.03										3					
0.03							6								
0.064							2			5					
<=0.25				7										2	3
<=0.5					8				7						
0.5				1										3	2
<=1		1						1							
1									1						
<=2													4		
2		3						7						2	
<=4											5				
4			1												
<=8						6									
8			5								3			1	
16			2			2									
32												2			
>32															3
64												3	1		
>64		4											3		
>1024												3			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium in Meat from bovine animals - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**1**
<=0.03										1					
0.03							1								
<=0.25				1											
<=0.5					1				1						
0.5														1	
<=1								1							
<=4											1				
<=8						1									
8			1												
>32															1
>64		1											1		
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium in Pigs - fattening pigs

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**0**	**0**
<=0.03										2					
0.03							4								
0.064										2					
<=0.25				4										3	3
<=0.5					4				2						
0.5														1	1
<=1	2														
1									2						
<=2													2		
2	1							4							
<=4											2				
<=8						4									
8		4									1				
16											1				
64												3	1		
>64	1												1		
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**1**
<=0.03										1					
<=0.25				1											
<=0.5					1										
0.5							1							1	
1									1						
2								1							
<=8						1									
8			1												
16											1				
>32															1
>64		1											1		
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium in Live bivalve molluscs - oysters

Sampling Stage: Processing plant

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1										1	1
<=0.5					1										
<=1		1													
1									1						
<=2													1		
2								1							
<=4											1				
4			1												
<=8						1									
32												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium in Meat from pig - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**
0.03							1								
0.064										1					
<=0.25				1											
<=0.5					1										
0.5															1
1									1						
2		1						1						1	
<=4											1				
<=8						1									
8			1												
32												1			
>64													1		

Sampling Details:

MIC	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**	**64**	**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	**1**	**1**	**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**	**1**	**0**
0.03							1								
0.064										1					
<=0.25				1											
<=0.5					1				1						
0.5															1
2								1							
<=4											1				
4													1	1	
<=8						1									
8			1												
32												1			
>64		1													

Sampling Details:

MIC	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
	N of resistant isolates	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1											1
<=0.5					1				1						
0.5														1	
<=2													1		
2		1													
4								1							
<=8						1									
8			1								1				
32												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Monitoring - EFSA specifications

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**
<=0.03										1					
0.03							3								
0.064										2					
<=0.25				3										3	3
<=0.5					3				2						
<=1		1													
1									1						
<=2													2		
2		1						3							
<=4											2				
<=8						3									
8			3								1				
32												1			
64												1			
>64		1											1		
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Meat from pig - carcase

Sampling Stage: Slaughterhouse

Sampling Type: food sample - carcase swabs

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1											1
<=0.5					1										
0.5														1	
2		1						1	1						
<=4											1				
<=8						1									
8			1												
>64													1		
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic 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: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1										1	1
<=0.5					1										
1									1						
2								1							
<=4											1				
<=8						1									
16			1												
>64		1											1		
>1024												1			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Pigs - fattening pigs

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	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**	**64**	**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	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**1**	**0**	**0**
<=0.03										1					
0.03							3								
0.064										2					
<=0.25				3										1	2
<=0.5					3				2						
0.5														2	1
<=1								1							
1									1						
<=2													2		
2								2							
<=4											2				
<=8						3									
8			3								1				
32												1			
>64		3											1		
>1024												2			

Table Antimicrobial susceptibility testing of Salmonella Typhimurium, monophasic in Spices and herbs - fresh

Sampling Stage: Wholesale

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**0**
0.03							1								
0.064										1					
<=0.25				1											1
<=0.5					1				1						
0.5														1	
4								1							
<=8						1									
8			1								1				
64												1			
>64		1											1		

Table Antimicrobial susceptibility testing of Salmonella Virchow in Meat from broilers (Gallus gallus) - 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: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.015							1								
<=0.03										1					
<=0.25				1										1	1
<=0.5					1				1						
<=1								1							
<=2													1		
2		1													
<=4											1				
<=8						1									
16			1												
128												1			

Table Antimicrobial susceptibility testing of Salmonella Weltevreden in Crustaceans - shrimps - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Bangladesh

Sampling Details:

	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**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.03							1								
<=0.25				1										1	1
<=0.5					1				1						
<=1		1													
<=2													1		
2								1							
<=4											1				
4			1												
<=8						1									
64												1			

ANTIMICROBIAL RESISTANCE TABLES FOR INDICATOR ESCHERICHIA COLI

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - fresh

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:

Country of Origin: European Union

Sampling Details:

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**	**0.125**	**32**
Lowest limit	**0.064**	**0.25**	**0.064**	**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	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
MIC **N of resistant isolates**	**3**	**5**	**2**	**2**	**5**	**2**	**0**	**0**	**0**	**0**
<=0.015							4			
<=0.03									5	
0.03							1			
<=0.064	1		3							
<=0.12						1				
0.12	1									
0.25	1					2		3		
0.5								2		
1		1	1		1					
2		1	1		3	1				
4		1		3						1

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
MIC	**N of resistant isolates**	**3**	**5**	**2**	**2**	**5**	**2**	**0**	**0**	**0**	**0**
8						1	1				4
16		1			1						
32		1									
64					1						
>64			2								

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
MIC	**N of resistant isolates**	**5**	**0**	**5**	**5**	**2**	**1**	**0**	**1**	**0**	**1**	**2**	**3**	**0**	**1**
<=0.015							4								
<=0.03										5					
<=0.25														5	3
<=0.5									1						
0.5							1								1
<=1								5							
1				1	1				2						
<=2													2		
2				1	1				1						
<=4											4				
4			2	1	2										
>4				2											
<=8						3						1			
8			3		1										
16												1			
32									1			1	1		
>32															1
64						1									
>64		5											2		
128						1									
>128											1				

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**	**5**
MIC	**N of resistant isolates**	**5**	**0**	**5**	**5**	**2**	**1**	**0**	**1**	**0**	**1**	**2**	**3**	**0**	**1**
>1024												2			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from bovine animals - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**
MIC	**N of resistant isolates**	**2**	**0**	**0**	**0**	**3**	**4**	**0**	**2**	**0**	**3**	**4**	**4**	**0**	**1**
<=0.015							43								
<=0.03										65					
0.03							18								
0.064							1								
0.12										1					
<=0.25				66										61	26
0.25							3								
<=0.5					66				18						
0.5														5	30
<=1		2						64							
1									38						8
<=2			2										47		
2		14						2	8						1
<=4											61				
4		40	22						1				13		
<=8						55						5			
8		8	39								2		2		
>8							1								
16			3			8						21			
32						2						29			
>32									1						1

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**	**66**
MIC	**N of resistant isolates**	**2**	**0**	**0**	**0**	**3**	**4**	**0**	**2**	**0**	**3**	**4**	**4**	**0**	**1**
64												7	2		
>64		2											2		
128											1	1			
>128						1					2				
>1024												3			

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: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**2**	**3**	**1**	**1**	**3**	**1**	**0**	**0**	**0**	**0**
<=0.015								2			
<=0.03										3	
0.03								1			
<=0.064		1		1							
0.12				1							
0.25							2		2		
0.5									1		
1			1	1							
2						1	1				
4						1					1
8					2	1					2
16		2			1						
>64			2								

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: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**3**	**0**	**3**	**3**	**0**	**2**	**0**	**0**	**0**	**1**	**3**	**3**	**0**	**1**
<=0.015							1								
<=0.03										2					
0.064										1					
<=0.25														3	1
0.25							1								
<=0.5									1						
0.5															1
<=1								2							
1				1			1		1						
2					2			1	1						
<=4											1				
>4				2											
<=8						3									
8			3		1										
16											1				
>32															1
>64		3											3		
>128											1				
>1024												3			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from sheep - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**1**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**
<=0.015								1			
<=0.03										1	
0.12				1							
0.25							1		1		
1		1									
4						1					
16			1		1						1

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from sheep - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

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

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Crustaceans - shrimps - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON pnl2

Analytical Method:

Country of Origin: Vietnam

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**0**	**0**
0.064								1		1	
0.25		1									
0.5									1		
4				1							
8			1				1				1
16						1					
>64					1						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Crustaceans - shrimps - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Vietnam

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
MIC	**N of resistant isolates**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.03										1					
0.064							1								
<=0.25														1	
<=1								1							
1									1						1
<=2													1		
<=4											1				
4			1												
>4				1											
<=8						1									
>8					1										
64												1			
>64		1													

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Cattle (bovine animals) - calves (under 1 year)

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**
MIC	**N of resistant isolates**	**59**	**0**	**0**	**0**	**37**	**10**	**0**	**5**	**0**	**4**	**61**	**127**	**0**	**49**
<=0.015							247								
<=0.03										292					
0.03							37								
0.064										2					
<=0.25				294										262	106
0.25							6								
<=0.5					294				145						
0.5							3							32	129
<=1		5						272							
1									129						8
<=2			10										147		
2		62						22	15						2
<=4											278				
4		155	152										20		
<=8						241						233			
8		13	125								11				
>8							1								
16			7			16			1		1		2		
32		1				3			1				1		
>32									3						49
64						3							46		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**	**294**
MIC	**N of resistant isolates**	**59**	**0**	**0**	**0**	**37**	**10**	**0**	**5**	**0**	**4**	**61**	**127**	**0**	**49**
>64		58											78		
128						13					1				
>128						18					3				
>1024												61			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Cattle (bovine animals) - meat production animals - calves (under 1 year)

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:

Country of Origin: Netherlands

Sampling Details:

	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	0.125	32
	Lowest limit	0.064	0.25	0.064	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	103	103	103	103	103	103	103	103	103	103
MIC	N of resistant isolates	99	103	8	13	99	8	0	0	0	1
<=0.015								55			
<=0.03										94	
0.03								39			
<=0.064		1		71							
0.064								9		8	
<=0.12							17		11		
0.12		3		21						1	
0.25		2		3			64		66		
<=0.5											1
0.5						4	14		26		
1				3		6					
2		4	2	4	7	12	1				
4		7	4	1	40	20	4				9
8		12	2		43	29	1				55

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**
MIC	**N of resistant isolates**	**99**	**103**	**8**	**13**	**99**	**8**	**0**	**0**	**0**	**1**
16		22	1		7	22	1				35
32		21	2		3	8					2
>32		31									
64			12		3	1	1				1
>64			80								
128						1					

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Cattle (bovine animals) - meat production animals - calves (under 1 year)

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**
MIC	**N of resistant isolates**	**103**	**6**	**103**	**98**	**46**	**48**	**0**	**25**	**0**	**16**	**61**	**76**	**0**	**53**
<=0.015							41								
<=0.03										97					
0.03							14								
0.064										6					
0.12							2								
<=0.25														83	22
0.25							20								
<=0.5					5				30						
0.5							16							20	26
<=1								99							
1					5		1		37						2
<=2			4										24		
2				4	18			4	11						
<=4											59				
4			34	3	16		1		2				2		
>4				96											
<=8						50						42			
8			56		30		1				20		1		
>8					29		7								
16			3			7			2		8				
32			1						5				1		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**	**103**
MIC	**N of resistant isolates**	**103**	**6**	**103**	**98**	**46**	**48**	**0**	**25**	**0**	**16**	**61**	**76**	**0**	**53**
>32									16						53
64			1			1							18		
>64		103	4										57		
128						19					3				
>128						26					13				
>1024												61			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Cattle (bovine animals) - dairy cows

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**
MIC	**N of resistant isolates**	**31**	**2**	**31**	**29**	**9**	**16**	**0**	**1**	**1**	**7**	**17**	**18**	**0**	**17**
<=0.015							13								
<=0.03										27					
0.03							2								
0.064										3					
0.12							1								
<=0.25														27	6
0.25							6			1					
<=0.5					2				14						
0.5							6							4	8
<=1								31							
1					2				14						
<=2													9		
2				1	2				2						
<=4											19				
4			19	5	2								4		
>4				25											
<=8						20						14			
8			10		11		1				3				
>8					12		2								
16						2					2				
32						1							2		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**
MIC	**N of resistant isolates**	**31**	**2**	**31**	**29**	**9**	**16**	**0**	**1**	**1**	**7**	**17**	**18**	**0**	**17**
>32									1						17
64			2										5		
>64		31											11		
128						4									
>128						4					7				
>1024												17			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Cattle (bovine animals) - dairy cows

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER SEL AMR MON pn

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
	ECOFF	**0.125**	**0.25**	**0.25**	**8**	**0.5**	**0.5**	**0.06**	**0.5**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**
MIC	**N of resistant isolates**	**30**	**31**	**9**	**13**	**29**	**9**	**8**	**0**	**1**	**0**
<=0.015								14			
<=0.03										27	
0.03								9			
<=0.064				14							
0.064								5		3	
<=0.12							3		1		
0.12		1		7				1			
<=0.25						1					
0.25		3		1			17		23		
0.5						1	2	1	7	1	
1		4				1					
2		1	1	5		2		1			
4		3	6	2	10	4	2				1
8		3	1	1	8	9	3				23
16		5	2		6	8	3				6
32		6	1	1	1	4					1
>32		5									

	AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
	ECOFF	**0.125**	**0.25**	**0.25**	**8**	**0.5**	**0.5**	**0.06**	**0.5**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**	**31**
MIC	**N of resistant isolates**	**30**	**31**	**9**	**13**	**29**	**9**	**8**	**0**	**1**	**0**
64			2		5	1	1				
>64			18		1						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Cattle (bovine animals) - dairy cows

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Unknown

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**
MIC	**N of resistant isolates**	**5**	**1**	**0**	**0**	**5**	**1**	**0**	**1**	**0**	**0**	**9**	**13**	**0**	**6**
<=0.015							254								
<=0.03										296					
0.03							40								
0.064							1								
<=0.25				296										280	140
0.25							1								
<=0.5					296				131						
0.5														16	144
<=1		7						264							
1									149						6
<=2			9										233		
2		50						32	15						
<=4											291				
4		207	175										50		
<=8						267						287			
8		27	109								5				
16			2			24							2		
32			1			1									1
>32									1						5
64													5		
>64		5											6		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**	**296**
MIC	**N of resistant isolates**	**5**	**1**	**0**	**0**	**5**	**1**	**0**	**1**	**0**	**0**	**9**	**13**	**0**	**6**
128						2									
>128						2									
>1024												9			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from turkey - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.015								1			
<=0.03										1	
<=0.064		1									
0.12				1							
<=0.25			1								
0.25							1		1		
0.5						1					
8					1						1

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from turkey - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**
MIC	**N of resistant isolates**	**9**	**0**	**0**	**1**	**2**	**4**	**2**	**0**	**0**	**3**	**6**	**8**	**0**	**3**
<=0.015							7								
<=0.03										15					
0.03							4								
<=0.25				15										12	5
<=0.5					14				6						
0.5							1							3	5
<=1								13							
1									8						2
<=2			1										7		
2		2			1				1						
<=4											11				
4		4	7												
<=8						10						1			
8			7					2							
>8							3								
16						3					1	3			
32												1	1		
>32															3
64						1						4	3		
>64		9											4		
>128						1					3				

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**	**15**
MIC	**N of resistant isolates**	**9**	**0**	**0**	**1**	**2**	**4**	**2**	**0**	**0**	**3**	**6**	**8**	**0**	**3**
>1024												6			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from turkey - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**3**	**3**	**0**	**1**	**3**	**0**	**0**	**0**	**0**	**0**
<=0.015								3			
<=0.03										3	
<=0.064				2							
<=0.12							2		1		
0.12				1							
0.25							1		2		
4		2			2	1					2
8						2					
16		1			1						1
64			2								
>64			1								

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from turkey - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**3**	**0**	**3**	**3**	**3**	**3**	**1**	**0**	**0**	**3**	**3**	**3**	**0**	**1**
<=0.03										3					
<=0.25														2	1
<=0.5									1						
0.5														1	1
<=1								2							
1									1						
2									1						
4			1		1										
>4				3											
8			2		1		1	1							
>8					1		2								
>32															1
64						1									
>64		3											3		
128						2									
>128											3				
>1024												3			

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

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**
MIC	**N of resistant isolates**	**9**	**11**	**5**	**4**	**11**	**5**	**0**	**0**	**0**	**0**
<=0.015								7			
<=0.03										11	
0.03								4			
<=0.064				5							
<=0.12							2				
0.12		2		1							
0.25		2					4		7		
0.5									4		
1						1					
2		1		2		3					
4		2	4	3	4	1	1				3
8		3	1		3	2	2				4
16		1	1			2	2				4
32			1		1	2					

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**
MIC	**N of resistant isolates**	**9**	**11**	**5**	**4**	**11**	**5**	**0**	**0**	**0**	**0**
64			3		1						
>64			1		2						

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

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**
MIC	**N of resistant isolates**	**11**	**1**	**11**	**11**	**3**	**1**	**0**	**0**	**0**	**1**	**4**	**4**	**0**	**3**
<=0.015							6								
<=0.03										11					
0.03							3								
0.064							1								
<=0.25														10	4
0.25							1								
<=0.5									8						
0.5														1	4
<=1								11							
1					2				3						
<=2													6		
2				2	3										
<=4											9				
4				3									1		
>4				6											
<=8						7						1			
8			8		4						1				
>8					2										
16			2			1						6			
32						1									
>32															3

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**	**11**
MIC	**N of resistant isolates**	**11**	**1**	**11**	**11**	**3**	**1**	**0**	**0**	**0**	**1**	**4**	**4**	**0**	**3**
>64		11	1										4		
>128						2					1				
>1024												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: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**
MIC	**N of resistant isolates**	**65**	**2**	**0**	**0**	**36**	**3**	**0**	**6**	**0**	**2**	**97**	**127**	**0**	**79**
<=0.015							276								
<=0.03										304					
0.03							25								
0.12							1								
<=0.25				304										276	126
0.25							2								
<=0.5					304				136						
0.5														28	94
<=1		4						287							
1									134						4
<=2			27										164		
2		68						17	28						1
<=4											296				
4		149	196						4				8		
<=8						260						207			
8		18	79								6		5		
16						8							2		
32						8			1				3		
>32									1						79
64			1			8							49		
>64		65	1										73		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**	**304**
MIC	**N of resistant isolates**	**65**	**2**	**0**	**0**	**36**	**3**	**0**	**6**	**0**	**2**	**97**	**127**	**0**	**79**
128						8									
>128						12					2				
1024												2			
>1024												95			

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:

Country of Origin: Netherlands

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**
MIC	**N of resistant isolates**	**35**	**51**	**24**	**24**	**48**	**24**	**0**	**0**	**0**	**0**
<=0.015								32			
<=0.03										50	
0.03								18			
<=0.064				23							
0.064								1		1	
<=0.12							6		6		
0.12		16		4							
0.25		8					19		37		
0.5						3	2		8		
1		1	1	9		3					
2		2	10	12	2	12	3				
4		4	9	2	17	8	14				11
8		4	4	1	8	15	5				35
16		6	3		3	7	2				5

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**
MIC	**N of resistant isolates**	**35**	**51**	**24**	**24**	**48**	**24**	**0**	**0**	**0**	**0**
32		6	4		9	3					
>32		4									
64			5		11						
>64			15		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

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**
MIC	**N of resistant isolates**	**51**	**3**	**51**	**50**	**10**	**9**	**0**	**2**	**0**	**11**	**34**	**22**	**0**	**30**
<=0.015							35								
<=0.03										50					
0.03							5								
0.064							2			1					
0.12							3								
<=0.25														49	16
0.25							4								
<=0.5					1				26						
0.5														2	5
<=1								50							
1				2	6				21						
<=2			2										29		
2				9	10			1	2						
<=4											40				
4			24	12	10										1
>4				28											
<=8						41						16			
8			21		16										
>8					8		2								
16			1									1			
32						1			1						

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**	**51**
MIC	**N of resistant isolates**	**51**	**3**	**51**	**50**	**10**	**9**	**0**	**2**	**0**	**11**	**34**	**22**	**0**	**30**
>32									1						29
64		1	1								4		10		
>64		50	2										12		
128						4					1				
>128						5					6				
>1024												34			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Wholesale

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
MIC	**N of resistant isolates**	**9**	**10**	**2**	**2**	**10**	**2**	**0**	**0**	**0**	**0**
<=0.015								5			
<=0.03										9	
0.03								4			
<=0.064				6							
0.064								1		1	
<=0.12							1		1		
0.12		1		2							
0.25							5		8		
0.5		2					2		1		
1		2									
2			1	1		2					
4					4	3	1				2
8		1	1	1	4	1	1				6
16			3			1					2

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
MIC	**N of resistant isolates**	**9**	**10**	**2**	**2**	**10**	**2**	**0**	**0**	**0**	**0**
32		1			1	2					
>32		3									
64			1		1	1					
>64			4								

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Wholesale

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
MIC	**N of resistant isolates**	**10**	**0**	**10**	**10**	**2**	**5**	**0**	**1**	**0**	**3**	**9**	**6**	**0**	**4**
<=0.015							3								
<=0.03										10					
0.03							2								
0.12							1								
<=0.25														8	2
<=0.5									2						
0.5							1							2	3
<=1								10							
1					1		1		6						1
<=2													2		
2				1	2		2		1						
<=4											5				
4			2		3								1		
>4				9											
<=8						7									
8			6										1		
>8					4										
16			2			1					2	1			
32									1						
>32															4
64						2							3		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**10**
MIC	**N of resistant isolates**	**10**	**0**	**10**	**10**	**2**	**5**	**0**	**1**	**0**	**3**	**9**	**6**	**0**	**4**
>64		10											3		
128											1				
>128											2				
>1024												9			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**2**	**2**	**1**	**1**	**2**	**1**	**1**	**0**	**0**	**0**
<=0.015								1			
<=0.03										1	
<=0.064				1							
0.064										1	
<=0.12							1				
0.12								1			
0.25									1		
0.5		1							1		
1						1					
4					1						1
8		1		1							
16			1								1
32						1	1				
>64			1		1						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

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

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**1**	**2**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
<=0.015								3			
<=0.03										3	
<=0.064		2		2							
<=0.12							2				
0.12				1							
<=0.25			1			1					
0.25		1					1		3		
0.5			1			1					
2			1			1					
4					2						2
8					1						
16											1

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**
MIC	**N of resistant isolates**	**58**	**0**	**1**	**3**	**5**	**46**	**0**	**8**	**0**	**42**	**54**	**45**	**0**	**37**
<=0.015							89								
<=0.03										178					
0.03							43								
0.064							1			1					
0.12							3								
<=0.25				178										149	58
0.25							17								
<=0.5					176				53						
0.5							10							30	69
<=1								174							
1					2		3		100						15
<=2			5										109		
2		37			1			5	18						
<=4											132				
4		74	79	1					5				25		
<=8						163						22			
8		10	89				5				4				
>8							8								
16			6			11					1	48			
32						2			1			41	2		
>32									2						37

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**	**179**
MIC	**N of resistant isolates**	**58**	**0**	**1**	**3**	**5**	**46**	**0**	**8**	**0**	**42**	**54**	**45**	**0**	**37**
64						2					4	14	13		
>64		58											30		
128											9	1			
>128						1					29				
>1024												53			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
MIC	**N of resistant isolates**	**25**	**25**	**7**	**10**	**25**	**7**	**2**	**0**	**0**	**0**
<=0.015								11			
<=0.03										21	
0.03								8			
<=0.064				12							
0.064								4		4	
<=0.12							5		3		
0.12				6				2			
0.25		4					12		15		
0.5		7					1		7		
1		2	1			1					
2		2				6					
4		1	1		9	3					7
8		6	6	5	6	1	2				11
16		2	8	2	3	6	3				6

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
MIC	**N of resistant isolates**	**25**	**25**	**7**	**10**	**25**	**7**	**2**	**0**	**0**	**0**
32			3			3	1				1
>32		1									
64			2		3	5	1				
>64			4		4						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - fresh - chilled

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
MIC	**N of resistant isolates**	**25**	**0**	**25**	**25**	**2**	**11**	**1**	**4**	**0**	**7**	**18**	**12**	**0**	**9**
<=0.015							10								
<=0.03										21					
0.03							4								
0.064										4					
0.12							2								
<=0.25														24	3
0.25							1								
<=0.5									7						
0.5							6							1	9
<=1								22							
1				1	1				13						4
<=2			1										11		
2					8			2	1						
<=4											13				
4			5	1	2		1						1		
>4				23											
<=8						22									
8			18					1			3		1		
>8					14		1								
16			1			1					2	3			
32						1			4			4	1		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**	**25**
MIC	**N of resistant isolates**	**25**	**0**	**25**	**25**	**2**	**11**	**1**	**4**	**0**	**7**	**18**	**12**	**0**	**9**
>32															9
64						1					1		4		
>64		25											7		
128											1	1			
>128											5				
>1024												17			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Gallus gallus (fowl) - broilers

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**
MIC	**N of resistant isolates**	**121**	**2**	**0**	**0**	**16**	**108**	**0**	**16**	**0**	**96**	**114**	**86**	**0**	**83**
<=0.015							171								
<=0.03										314					
0.03							33								
0.064							3			1					
0.12							4								
<=0.25				315										281	135
0.25							71								
<=0.5					315				148						
0.5							15							34	87
<=1		1						296							
1							8		138						10
<=2			17										208		
2		66					2	19	13						
<=4											200				
4		113	147				1		1				20		
<=8						271						197			
8		14	132				5				7		1		
>8							2								
16		1	17			28			7		12	1			1
32			1			2			6		2	1	3		
>32									2						82

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**	**315**
MIC	**N of resistant isolates**	**121**	**2**	**0**	**0**	**16**	**108**	**0**	**16**	**0**	**96**	**114**	**86**	**0**	**83**
64		1				7					10	2	29		
>64		119	1										54		
128						3					35				
>128						4					49				
256												2			
1024												1			
>1024												111			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Gallus gallus (fowl) - broilers

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:

Country of Origin: Netherlands

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
MIC	**N of resistant isolates**	**53**	**58**	**12**	**14**	**57**	**12**	**0**	**0**	**0**	**0**
<=0.015								41			
<=0.03										58	
0.03								11			
<=0.064		1		42							
0.064								6			
<=0.12							17		8		
0.12		4		3							
0.25		6		1			28		44		
0.5		14				1	1		6		
1		11	1	2		6					
2		5	2	1	3	10	1				1
4		4	5	2	24	1	3				8
8		3	10	7	17	7	5				40
16		1	19		2	15	3				8

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
MIC	**N of resistant isolates**	**53**	**58**	**12**	**14**	**57**	**12**	**0**	**0**	**0**	**0**
32		4	6		2	13					1
>32		5									
64			6		9	4					
>64			9		1						
128						1					

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Gallus gallus (fowl) - broilers

Sampling Stage: Slaughterhouse

Sampling Type: animal sample - caecum

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON

Analytical Method:

Country of Origin: Netherlands

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
MIC	**N of resistant isolates**	**58**	**5**	**58**	**58**	**19**	**32**	**0**	**8**	**0**	**25**	**44**	**33**	**0**	**28**
<=0.015							22								
<=0.03										58					
0.03							4								
0.12							2								
<=0.25														52	18
0.25							8								
<=0.5									25						
0.5							7							6	8
<=1								58							
1					6		9		18						4
<=2			1										23		
2				5	10				7						
<=4											26				
4			26	3	4								2		1
>4				50											
<=8						37						14			
8			25		6		4				4				
>8					32		2								
16			1			2			1		3				
32			2			4			5				3		
>32									2						27

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**	**58**
MIC	**N of resistant isolates**	**58**	**5**	**58**	**58**	**19**	**32**	**0**	**8**	**0**	**25**	**44**	**33**	**0**	**28**
64			2			5					2		14		
>64		58	1										16		
128						4					4				
>128						6					19				
>1024												44			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Ready-to-eat salads

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**1**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
<=0.015								1			
<=0.03										1	
<=0.064				1							
<=0.12							1		1		
2		1									
4					1						
8											1
16			1								
32						1					

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Ready-to-eat salads

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

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

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Fish - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON pnl2

Analytical Method:

Country of Origin: Vietnam

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**2**	**3**	**1**	**1**	**3**	**1**	**0**	**0**	**0**	**0**
<=0.015								1			
<=0.03										3	
0.03								2			
<=0.064				1							
<=0.12									1		
0.12		1		1							
0.25							2		2		
4			1	1							
8					2		1				1
16						2					2
32					1	1					
>32		2									
>64			2								

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Fish - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: Vietnam

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**	**3**
MIC	**N of resistant isolates**	**3**	**0**	**3**	**3**	**1**	**2**	**0**	**0**	**0**	**1**	**3**	**3**	**0**	**1**
<=0.015							1								
<=0.03										3					
<=0.25														3	1
0.5							1								1
<=1								3							
1									2						
2									1						
<=4											1				
4				1											
>4				2											
<=8						2									
8			3												
>8					3		1								
16											1				
>32															1
64													2		
>64		3											1		
128						1									
>128											1				
>1024												3			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Gallus gallus (fowl) - broilers - during rearing period

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**
MIC	**N of resistant isolates**	**18**	**18**	**5**	**7**	**17**	**5**	**1**	**1**	**0**	**0**
<=0.015								6			
<=0.03										12	
0.03								8			
<=0.064				8							
0.064								3		6	
<=0.12							2				
0.12				5				1			
0.25		1					10		12		
0.5		4				1	1		5		
1		4							1		
2		2			1	5					
4					5						1
8		2	6	4	5		3				13
16			5	1	2	7	2				4

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**
MIC	**N of resistant isolates**	**18**	**18**	**5**	**7**	**17**	**5**	**1**	**1**	**0**	**0**
32		2	1			3					
>32		3									
64			1		4	1					
>64			5		1						
128						1					

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Gallus gallus (fowl) - broilers - during rearing period

Sampling Stage: Farm

Sampling Type: animal sample - faeces

Sampling Context: Surveillance

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER ESBL MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**
MIC	**N of resistant isolates**	**18**	**0**	**18**	**17**	**4**	**11**	**0**	**3**	**0**	**9**	**13**	**11**	**0**	**8**
<=0.015							4								
<=0.03										16					
0.03							3								
0.064										2					
0.12							1								
<=0.25														16	2
0.25							1								
<=0.5					1				6						
0.5							6							2	6
<=1								17							
1							1		6						2
<=2													6		
2					4			1	3						
<=4											7				
4			9		1								1		
>4				18											
<=8						12									
8			9												
>8					12		2								
16						2					2	1			
32									1		1	3			

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**
MIC	**N of resistant isolates**	**18**	**0**	**18**	**17**	**4**	**11**	**0**	**3**	**0**	**9**	**13**	**11**	**0**	**8**
>32									2						8
64						1						1	6		
>64		18											5		
128						2					1				
>128						1					7				
>1024												13			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Vegetables - pre-cut - ready-to-eat

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON pnl2

Analytical Method:

Country of Origin: European Union

Sampling Details:

	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**	**0.125**	**32**
	Lowest limit	**0.064**	**0.25**	**0.064**	**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**
MIC	**N of resistant isolates**	**1**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**
<=0.015								3			
<=0.03										3	
<=0.064		2		1							
<=0.12							1		1		
0.12				1							
<=0.25			3			2					
0.25		1					1		1		
0.5				1		1	1		1		
2					1						
4					1						1
8											1
16											1
>64					1						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Vegetables - pre-cut - ready-to-eat

Sampling Stage: Retail

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**
MIC	**N of resistant isolates**	**7**	**0**	**2**	**2**	**2**	**1**	**0**	**0**	**0**	**1**	**3**	**5**	**0**	**2**
<=0.015							39								
<=0.03										79					
0.03							43								
0.064										2					
0.12										2					
<=0.25				81										80	13
<=0.5					81				24						
0.5				2										3	48
<=1								74							
1					2				51						19
<=2			4										60		
2		12						9	8						1
<=4											82				
4		49	34										17		
<=8						68									
8		15	44										1		
>8							1								
16		1	1			13						31			
32												42			
>32															2
64		1										7	1		

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**	**83**
MIC	**N of resistant isolates**	**7**	**0**	**2**	**2**	**2**	**1**	**0**	**0**	**0**	**1**	**3**	**5**	**0**	**2**
>64		5											4		
128						1									
>128						1					1				
>1024												3			

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from pig - fresh

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country of Origin: European Union

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**
MIC	**N of resistant isolates**	**9**	**0**	**0**	**0**	**2**	**1**	**0**	**2**	**0**	**1**	**8**	**5**	**0**	**9**
<=0.015							29								
<=0.03										40					
0.03							10								
<=0.25				40										37	6
<=0.5					40				13						
0.5														3	19
<=1								38							
1									21						6
<=2			4										32		
2		11						2	4						
<=4											39				
4		20	21						2				3		
<=8						35						3			
8			14												
>8							1								
16			1			3						14			
32												11			
>32															9
64						1						4	2		
>64		9											3		
128						1									

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**	**40**
MIC	**N of resistant isolates**	**9**	**0**	**0**	**0**	**2**	**1**	**0**	**2**	**0**	**1**	**8**	**5**	**0**	**9**
>128											1				
>1024												8			

OTHER ANTIMICROBIAL RESISTANCE TABLES

Table Antimicrobial susceptibility testing of Klebsiella pneumoniae in Crustaceans - shrimps - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON pnl2

Analytical Method:

Country Of Origin:Bangladesh

Sampling Details:

	AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Meropenem	Temocillin
	ESBL genotype	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
	AMPC genotype	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available
	CARBAPENEM genotype	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE	NOT AVAILABLE
	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	0.125	32
	Lowest limit	0.064	0.25	0.064	0.5	0.25	0.12	0.015	0.12	0.03	0.5
MIC	Highest limit	32	64	64	64	128	128	2	16	16	64
0.03								1			
<=0.064				1							
0.064										1	
0.25							1				
1									1		
8		1			1						1
16						1					
64			1								

Table Antimicrobial susceptibility testing of Klebsiella pneumoniae in Crustaceans - shrimps - raw - frozen

Sampling Stage: Border Control Posts

Sampling Type: food sample

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: OTHER AMR MON

Analytical Method:

Country Of Origin:Bangladesh

Sampling Details:

	AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
	ECOFF	**8**	**16**	**0.25**	**0.5**	**16**	**0.064**	**2**	**2**	**0.125**	**16**	**64**	**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**
MIC	**Highest limit**	**64**	**64**	**4**	**8**	**128**	**8**	**16**	**32**	**16**	**128**	**1024**	**64**	**8**	**32**
<=0.03										1					
<=0.5									1						
0.5														1	1
<=1								1							
1							1								
4													1		
>4				1											
<=8						1									
8					1						1				
16			1												
>64		1													
128												1			

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

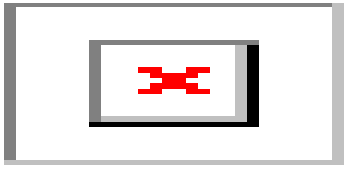
Programme Code	Matrix Detailed	Zoonotic Agent Detailed	Sampling Strategy	Sampling Stage	Sampling Details	Sampling Context	Sampler	Sample Type	Sampling Unit Type	Sample Origin	Comment	Total Units Tested	Total Units Positive
ESBL MON	Meat from pig - fresh	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Retail	N_A	Monitoring	Official sampling	food sample - meat	single (food/feed)	European Union	MRHH19103 Vers vlees varken	296	0
OTHER CARBA MON	Cattle (bovine animals) - dairy cows	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Farm	N_A	Monitoring - active	Official sampling	animal sample - faeces	animal	Netherlands	CPE culture and RT-PCR performed	300	0
	Cattle (bovine animals) - meat production animals - calves (under 1 year)	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Slaughterhouse	N_A	Monitoring - active	Official sampling	animal sample - caecum	animal	Netherlands	CPE culture and RT-PCR performed	297	0
	Gallus gallus (fowl) - broilers	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Slaughterhouse	N_A	Monitoring - EFSA specifications	Official sampling	animal sample - caecum	animal	Netherlands	CPE culture and RT-PCR performed	308	0
	Meat from deer (venison) - fresh - frozen	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Wholesale	N_A	Monitoring	Official sampling	food sample	single (food/feed)	Unknown	MRHH19P52 Exotisch vlees	1	0

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

Programme Code	Matrix Detailed	Zoonotic Agent Detailed	Sampling Strategy	Sampling Stage	Sampling Details	Sampling Context	Sampler	Sample Type	Sampling Unit Type	Sample Origin	Comment	Total Units Tested	Total Units Positive
OTHER CARBA MON	Meat from farmed game - ratites - fresh - frozen	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Wholesale	N_A	Monitoring	Official sampling	food sample	single (food/feed)	Unknown	MRHH19P52 Exotisch vlees	13	0
	Meat from farmed game-land mammals - meat products - raw but intended to be eaten cooked - chilled	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Wholesale	N_A	Monitoring	Official sampling	food sample	single (food/feed)	Unknown	MRHH19P52 Exotisch vlees	29	0
	Meat from other animal species or not specified - fresh - frozen	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Wholesale	N_A	Monitoring	Official sampling	food sample	single (food/feed)	Unknown	MRHH19P52 Exotisch vlees	6	0
	Pigs - fattening pigs	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Slaughterhouse	N_A	Monitoring - active	Official sampling	animal sample - caecum	animal	Netherlands	CPE culture and RT-PCR performed	304	0
	Spices and herbs - fresh	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Wholesale	N_A	Monitoring	Official sampling	food sample	single (food/feed)	Unknown	MRHH19P06 +MRHH19T21	52	0
	Vegetables - leaves	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Retail	N_A	Monitoring	Official sampling	food sample	single (food/feed)	Unknown	MRHH19136+MRHH19P10	51	0

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

Programme Code	Matrix Detailed	Zoonotic Agent Detailed	Sampling Strategy	Sampling Stage	Sampling Details	Sampling Context	Sampler	Sample Type	Sampling Unit Type	Sample Origin	Comment	Total Units Tested	Total Units Positive
OTHER ESBL MON	Mushrooms	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Retail	N_A	Monitoring	Official sampling	food sample	single (food/feed)	Unknown	MRHH19136_Paddestoelen	78	0



Latest Transmission set

Table Name	Last submitted dataset transmission date
Antimicrobial Resistance	23-Feb-2021
Esbl	03-Sep-2020
Animal Population	03-Sep-2020
Disease Status	03-Sep-2020
Food Borne Outbreaks	03-Sep-2020
Prevalence	03-Sep-2020

Institutions and Laboratories involved in zoonoses monitoring and reporting

These are the most important organisations involved in the *EU One Health Zoonoses Report* in the Netherlands :

- Netherlands Food and Consumer Product Safety Authority (NVWA)
  www.nvwa.nl
  The NVWA provides information on health of animals and plants, animal welfare and the safety of food and consumer products and maintains the legislation in the field of nature.
  The NVWA is the competent authority for the EUOHZ report*.*

- Wageningen Bioveterinary Research (WBVR)
  https://www.wur.nl/en/Research-Results/Research-Institutes/Bioveterinary-Research.htm
  WBVR collaborates with public and private partners to safeguard animal and public health through prevention, eradication and control of animal diseases

- Animal Health Services (GD)
  https://www.gdanimalhealth.com/
  GD is a leading organisation in animal health and animal production. With our state-of-the-art veterinary laboratories and research facilities and with our veterinary knowledge and expertise we support our customers worldwide. Customers come to us for high quality and independant consultancy, contract research and animal health programmes.

- GMP+ International
  https://gmpplus.org/en/
  We deploy a certification scheme that facilitates companies to contribute to safe feed. To keep our scheme and community up to date we gather and share worldwide valuable information regarding feed safety assurance

- National Institute for Public Health and the Environment (RIVM)
  https://www.rivm.nl/en
  The RIVM conducts independent (scientific) research in the field of Public Health, Health Services, Environmental Safety and Security. In our role as trusted advisor, we support citizens, professionals and governments in the challenge of keeping the environment and ourselves healthy.

- Veterinair Microbiologisch Diagnostisch Centrum (VDMC)
  https://www.uu.nl/onderzoek/veterinair-microbiologisch-diagnostisch-centrum
  The VDMC of the Faculty of Veterinary Medicine (Utrecht University) examines materials from animals for the presence of infectious agents or specific antibodies against them.

- Netherlands Control Authority for Milk and Milk products (COKZ)
  https://cokz.nl/
  COKZ , including the NCAE (Netherlands Control Authority Egg sector) monitors the safety and quality of dairy products, eggs and egg products produced in the Netherlands and offer the sectors better access to national and international markets.

- The Wageningen Food Safety Research (WFSR)
  https://www.wur.nl/en/Research-Results/Research-Institutes/food-safety-research.htm

WFSR is your innovative partner for safe and authentic food. We are specialized in (forensic) measurements, perform top level research and develop methods to detect substances in food and feed.

Short description of the institutions and laboratories involved in data collection and reporting

Animal population

1. **Sources of information and the date(s) (months, years) the information relates to[(a)]**

The data from the tables comes from the Central Bureau of Statistics[1]. From 2015, data from the NVWA has been used for the number of poultry and in the other years figures from CBS. The NVWA reports the total number of available Unique Holdings Numbers (UBNs[2]), while the CBS lists the UBNs with animals actually present at the time of the agricultural census. As a result, the CBS figures may deviate from the figures that the NVWA reports to, among others, the EFSA and the OIE. Because especially the farms with animals are important when it comes to zoonoses, where possible, the figures from the CBS data are used. The CBS figures can be of a provisional nature and therefore the figures reported in the report of previous years may differ from the current figures.

2. Definitions used for different types of animals, herds, flocks and holdings as well as the production types covered

Definitions, productions, general demographic information and zoonoses that are important for the Netherlands are listed every year in the State of Zoonoses (SvZ)[3]. This report provides an annual overview of the trends of zoonoses that, among other things, have to be reported to the Municipal Health Service (-GGD -if it concerns humans) or the NVWA (animals) due to their infectivity. A number of special zoonotic developments, investigations or outbreaks are also highlighted in the SvZ and an annually changing zoonosis-related theme is discussed.

3. National changes of the numbers of susceptible population and trends

The numbers of animals slaughtered stabilized in 2019. With the exception of farms with chickens and goats, the number of farms with farm animals continues to decrease.

4. Geographical distribution and size distribution of the herds, flocks and holdings[(b)]

https://agrimatie.nl/

https://opendata.cbs.nl/statline/#/CBS/nl/?fromstatweb

https://www.wur.nl/nl/Onderzoek-Resultaten/Onderzoeksinstituten/livestock-research/show-wlr/Handboek-Kwantitatieve-Informatie-Veehouderij-KWIN.htm

[1] https://www.cbs.nl
[2] https://www.rvo.nl/onderwerpen/agrarisch-ondernemen/dieren-houden/dieren-registreren
[3] https://onehealth.nl/documenten-0 and https://www.rivm.nl/publicaties/staat-van-zoonosen-2018

https://ecdc.europa.eu/en/surveillance-atlas-infectious-diseases

5. Additional information

For different animal species, different requirements are in place with respect to the time period within which animals and animal movements have to be registered in the central identification and registration system[4].

Live animals such as companion animals, wild and exotic animals destined for zoos and horses for sport are regularly transported around the world. . In 2019, at the Border Control Post (GCP) Schiphol, 15,187 shipments from dozens of countries outside the EU (third countries) were offered for import control. Of the consignments, 6,788 consisted of consignments of live animals and 8,399 of products of animal origin. Not all of these animals remain in the Netherlands; part of it is transported to another country within or outside Europe. A third country means a country that is not a member of the EU..

Companion animals are part of our living environment. More than half of Dutch households have one or more pets. A study was done in 2015 into the number of pets. It is estimated that the total number of companion animals is 33.4 million. These are approximately 2.6 million cats, 1.5 million dogs, 3.9 million songbirds and ornamental birds, 5 million carrier pigeons, 1.2 million rabbits, 0.5 million rodents,0.65 million reptiles, 9 million aquarium fish and 9 million pond fish[5].

(a): National identification and registration system(s), source of reported statistics (Eurostat, others)

(b): Link to website with density maps if available, tables with number of herds and flocks according to geographical area

General evaluation*: brucellosis

1. History of the disease and/or infection in the country[(a)]

Human contamination mainly occurs through contact with infected animals, drinking raw milk or other unpasteurized dairy products. In the Netherlands, sporadic cases of human infections with Brucella are reported, usually after a visit abroad or through the consumption of raw milk dairy products from abroad.

2. Evaluation of status, trends and relevance as a source for humans

A total of seven patients (two women aged 24 and 58 years and five men aged 34-56 years) with brucellosis were reported in Osiris with a first day of illness in 2019. All but one patient were hospitalized. Four patients were infected with *B. melitensis* and three patients had unknown Brucella species. All seven patients had contracted the infection abroad. Three patients had contracted the infection through consumption of raw dairy products or contact with sheep and goats in Syria, Ethiopia or Iraq. Two other patients may have contracted the infection from the consumption of raw camel milk in Somalia. The source of the infection was unclear in the other two patients, who had contracted the infection in Syria and Iraq.

[4] https://www.rvo.nl/onderwerpen/agrarisch-ondernemen/dieren-houden/identificatie-en-registratie-dieren

[5] Feiten en cijfers van de gezelschapsdierensector 2015, Faculteit Diergeneeskunde (Universiteit Utrecht) en HAS Den Bosch

3. Any recent specific action in the Member State or suggested for the European Union[(b)]
None
4. Additional information
https://www.rivm.nl/brucellose

* **For each zoonotic agent**

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: brucellosis in swine (*Brucella suis*)

1. Monitoring/Surveillance/Control programmes system[(a)]
To monitor the free status, a number of checks are also carried out on pigs. This also includes reports made by the GD for *B. suis* by artificial insemination (AI) pig associations and pig breeders. The use of reproduction material must be free of brucellosis before the animals are used for reproduction. Boars are screened for semen collection, sows when there are abnormalities at birth (abortions). In the event of a suspicion, a confirmation of the blood samples is first carried out by WBVR. If this is also 'not negative', the NVWA will again take blood from that animal and (possibly) mates and a new confirmatory test will follow.
2. Measures in place[(b)]
Test and cull
3. Notification system in place to the national competent authority[(c)]
Yes
4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]
The Netherlands is officially free from *Brucella suis* since 1973. In 2019 5,838 samples have been tested. No positives found.
5. Additional information
Sometimes blood samples give a (false) positive test result in the RBT. After confirmation by a SAT, CFT or ELISA most of these animals test negative. If an AI boar consistently tests serologically positive for *Brucella suis*, the animal will be euthanised for post mortem examination and bacteriological testing. In the past years this happened a few times but never *Brucella suis* was

detected. Most likely the positive serological test originates from cross reaction with *Yersinia spp*. Serological tests for *Brucella suis* antibodies are not very specific which is an economic concern for swine AI stations. The EU regulations on *Brucella suis* monitoring originate in a period that AI boars travelled between sow farms and were good sentinels for the spread of *Brucella suis.*

https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Animalsituation

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

Description of Monitoring/Surveillance/Control programmes system*: brucellosis in cattle (*B. abortus*)

1. Monitoring/Surveillance/Control programmes system[(a)]

A number of checks are carried out to monitor the OIE free status.

Livestock farmers are also obliged to have blood tests carried out by the GD on each cattle that has an abortion between days 100 and 260 of the gestation. Veterinarians, farmers and laboratories must report a (clinical) suspicion to the NVWA, which then examines the animals. Cattle offered for export or used for reproduction are often also clinically and serologically examined for brucellosis.

2. Measures in place[(b)]

Test and cull

3. Notification system in place to the national competent authority[(c)]

Yes

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

No infections have been found in the Netherlands since 1997 and from 1 August 1999 the Netherlands is officially free from bovine brucellosis.

All investigations in 2019 were negative

5. Additional information

https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Animalsituation

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

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(c): Mandatory: Yes/No.

(d): Minimum five years.

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

Description of Monitoring/Surveillance/Control programmes system*: brucellosis in sheep/goats (*B. melitensis, B. ovis)*

1. Monitoring/Surveillance/Control programmes system[(a)]

To monitor the free status, a number of controls are performed that are comparable to those of bovine brucellosis. However, controls in sheep and goats are less extensive than in cattle**.**

2. Measures in place[(b)]

Test and cull

3. Notification system in place to the national competent authority[(c)]

Yes

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

Brucellosis in sheep or goats has never been established in the Netherlands.

In 2019, 24 suspicions of *B. melitensis* and three suspicions of B. ovis in sheep and goats were negative.

5. Additional information

https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Animalsituation

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel

testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

Description of Monitoring/Surveillance/Control programmes system*: brucellosis in dogs

1. Monitoring/Surveillance/Control programmes system[(a)]

Passive surveillance in place following risk communication to veterinarians in a.o. the Dutch Vet-journal.

2. Measures in place[(b)]

Test and neuter

3. Notification system in place to the national competent authority[(c)]

Yes

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

In 2016, for the first time, *Brucella canis* infections were detected in dogs in the Netherlands. Those dogs were all imported from East Europe, mostly Romania and Bulgaria.
In the same year a *B. suis* biovar 1 infection in a dog in the Netherlands was linked to its commercial raw meat–based diet and was linked to imported South American Hare meat / animal byproducts.

In 2018 for the first time, *B. Canis* was detected in Dutch dogs as result of a transmission by an imported dog from Russia.

In 2019, 6 suspicions of *Brucella canis* were reported, 3 of these reports were tested positive. A dog was an adoptive dog from Bulgaria. This dog is euthanized due to the nature of the complaints. At the end of the year, a Jordanian dog was also reported, who immigrated to the Netherlands with the owner. In Jordan, the dog already had periods of lameness. This dog is also euthanized due to the severity of the complaints.

But the most impressive case of 2019 has been with a breeding farm. This breeding consisted of 72 dogs with less than half of the animals used for breeding. The owner imported dogs from Russia to start a new breed in the Netherlands. Unfortunately 3 out of 4 dogs turned out to be positive for *Brucella canis,* these 4 came from the same address in Russia. Due to the way of keeping these dogs, it has turned out to be possible to spread the infection on site, so that in the end it was

decided to euthanize all dogs present and to lay the company empty for six months. No spread outside this breeding site has been demonstrated**.**

No humans are found positive.

5. Additional information

https://resource.wur.nl/en/show/Rescuing-a-puppy-abroad-can-be-dangerous-.htm

https://www.researchgate.net/publication/325478790_Brucella_suis_Infection_in_Dog_Fed_Raw_Meat_the_Netherlands

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

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(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: campylobacteriosis

1. History of the disease and/or infection in the country[(a)]

Comparable at EU level.

2. Evaluation of status, trends and relevance as a source for humans

Incidental cases of human campylobacteriosis are, in contrast to various other European countries, not subject to a notification obligation in the Netherlands. Campylobacteriosis is only required to report if it concerns a human cluster of two or more related cases with a probable origin in consumption of contaminated food or drinking water. Insight into the trend of campylobacteriosis is obtained through the laboratory surveillance carried out by the RIVM since the late 1990s, with an estimated coverage of 52% of the Dutch population (for laboratory-confirmed campylobacteriosis).

After 2011, the number of human infections with Campylobacter fell steadily in this laboratory surveillance[6].

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

[6] https://www.rivm.nl/publicaties/staat-van-zoonosen-2017

None
4. Additional information
None
* For each zoonotic agent (a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country (b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: campylobacteriosis

1. Monitoring/Surveillance/Control programmes system[(a)]

Poultry at slaughterhouse

Campylobacter farm monitoring has been taking place since 2009 and has been replaced by a monitoring program of carcasses and chicken fillets in the slaughterhouse. An European Process Hygiene Criterion (PHC) has been implemented on 1 January 2018. Results of the sampling are published on the NEPLUVI website.[7]

Animal products in the retail

Meat and other animal products such as raw milk are investigated by the NVWA in the retail.

Poultry meat that contains Campylobacter varies considerably between years (20-40%).

Farm animal

In a joint project RIVM-NVWA called *"surveillance zoonosis in farm animals"* (poultry but also other animals) are investigated for various pathogenic microorganisms including thermophilic Campylobacter and *C. fetus*.

For instance in 2017, the project focused on farms with beef cattle other than calves. In the stable or meadows manure was collected and examined, on average 6 samples per farm. Campylobacter was found in 84% of farms (n = 196). At the sample level (n = 1147) this was 57%.

Antimicrobial resistance

The MARAN reports[8] describe the resistance in Campylobacter isolates to different types of antibiotics.

Export/clinical controls

7 https://www.nepluvi.nl/dynamic/media/1/documents/Campylobacter/Rapportage_Campylobacter_monitoring_2018.pdf

8 NethMap/MARAN rapport 2020

For control of *Campylobacter fetus* spp *venerealis*, (preputial or vaginal) lavage from animals for export or on AI stations will be investigated.

2. Measures in place[(b)]

If the PHC is exceeded, the NVWA requests the slaughterhouse to draw up an improvement plan to improve hygiene.

3. Notification system in place to the national competent authority[(c)]

Campylobacteriosis by bovines is subject to compulsory notification in the Netherlands (*Campylobacter fetus spp venerealis*). For other animal species is campylobacteriosis reportable[9].

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

Other animals (small ruminants, pets) submitted for clinical or post-mortem examination: a few cases of *Campylobacter* spp. are diagnosed per year**.**

5. Additional information

https://www.wur.nl/nl/Onderzoek-Resultaten/Onderzoeksinstituten/Bioveterinary-Research/Dierziekten/Bacteriele-ziekten/Campylobacter-2.htm

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(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

[9] No imposing measures but only an obligation to report the cases at regular time intervals for trend estimations. By positive findings by animals hold in locations with a public function such as pet farms the report interval is mostly very short and measures are advised to minimalize the risk.

General evaluation*: echinococcosis

1. History of the disease and/or infection in the country[(a)]

Present (endemic) depending on which Echinococcus species.

2. Evaluation of status, trends and relevance as a source for humans

Echinococcosis (this applies to both *E. granulosus* and *E. multilocularis*) in humans is not subject to notification in the Netherlands. This means that the incidence/status cannot be precisely measured.

In 2019, a total of 48 new patients were diagnosed with *Echinococcus granulosus*. All these cases were not native.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

In the Netherlands, the fox tapeworm (E. multilocularis) was first detected in foxes in parts of South Limburg and East Groningen in 1996-1997. Since then, the parasite in Limburg has spread from the southern region to the north. In the Maastricht area in 2012-2013 a strong increase in the prevalence was found in foxes. The rate of spread of *E. multilocularis* in the Netherlands can be influenced by the arrival of new hosts, such as the raccoon dog (Nyctereutes procyonoides).

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: echinococcosis

1. Monitoring/Surveillance/Control programmes system[(a)]

Passive surveillance at slaughterhouse

2. Measures in place[(b)]

Infested carcasses are destroyed and do not enter the food chain.

3. Notification system in place to the national competent authority[(c)]

Echinococcosis in animals is reportable but not notifiable. Dogs and canids are the final host of this parasite, but as an intermediate host the cystic stage occurs in various types of farm animals, such as cattle, sheep and pig. Due to the lack of clinical signs in farm animals as well as diagnostic options in the live animal, the focus of monitoring and control is in the slaughter phase

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

In 2018 positive bovines were found, imported for slaughtering from Hungary, Bulgaria and Romania.

In some international reports and maps (f.i. http://atlas.ecdc.europa.eu/public/index.aspx) these imported cases are given by error as native (Dutch) cases.

The last reported native cystic echinococcosis in bovines is reported in 2004.

5. Additional information

Native cases of *E. granulosus* in humans have not been present in the Netherlands for decades due to good slaughterhouse inspection and hygiene (destruction of positive organs) and the introduction of commercial feeds for dogs, which do not pose a risk through adequate treatment. A potential risk is the increasing popularity of raw fresh organ meat foods of unknown, mixed origin for dogs, such as BARF (Bones and Raw Food).

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

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(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: listeriosis

1. History of the disease and/or infection in the country[(a)]

Intensified surveillance of Listeria monocytogenes has existed in the Netherlands since 2005. From 2006, the results of food monitoring will also be taken into account by the NVWA. In December 2008, listeriosis was included in the list of notifiable human diseases.

2. Evaluation of status, trends and relevance as a source for humans

In 2019, 117 patients were reported, of which 110 were reported. This corresponds to an incidence of 6.8 cases of illness per million inhabitants per year in the Netherlands. This incidence was also seen in 2017 and is the highest incidence since the introduction of the notification requirement at the end of 2008.

The isolate of 103 patients was serotyped by the Nederlands Referentielaboratorium voor Bacteriële Meningitis (NRBM[10]) and then forwarded to the RIVM for sequencing. Most patients were found to be infected with *L. monocytogenes* serotype 4b (50%), 1 / 2a (42%), or 1 / 2b (5%). Serotype 1 / 2c was detected 3 times. In 2019, based on the WGS data, 48 of the 103 human isolates clustered with other isolates, across a total of 20 identified clusters. A total of 35 patients, of which 21 patients from 2019, belonged to the national outbreak linked to processed meat products in a meat processing company. In addition, 10 other human food clusters were identified with 1 to 3 human isolates from 2019, with 6 isolates (clusters) also containing human isolates from previous years. In the 5 clusters with 2 or 3 patients, there was contact between RIVM and NVWA and this led to contact between NVWA and the company from which the food isolates originated. Finally, there was 1 human cluster of 2 patients from 2019 and 1 patient from 2017 and there were 8 human isolates, each of which clustered with 1 to 9 human isolates from previous years (2010-2018).

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

Reducing the number of listeriosis cases is a spearhead in Europe. Since humans are mainly exposed to Listeria through food, legal standards for *L. monocytogenes* have been established at European level for ready-to-eat foods (including infant formulas and foods for special medical purposes). These standards are set out in Regulation (EC) No 2073/2005. In general, a standard of ≤ 100 cfu / gram applies throughout the shelf life of the product and in special cases absence in 25 grams applies immediately after production. The absence requirement in 25 grams applies to infant formula and food for medical use. The NVWA conducts annual research into the occurrence of *L. monocytogenes* in food. The emphasis here is on shelf-life (> 5 days), chilled fresh foodstuffs, which have undergone an additional preparation step after heating, such as cutting. For further details see tables.

Listeria monocytogenes meningitis in the Netherlands, 1985–2014: A nationwide surveillance study: https://www.sciencedirect.com/science/article/pii/S0163445317301111

* For each zoonotic agent

[10] https://bronnen.zorggegevens.nl/Bron?naam=Nederlands-Referentielaboratorium-voor-Bacteriële-Meningitis

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: listeriosis

1. Monitoring/Surveillance/Control programmes system[(a)]

No monitoring/surveillance/control programme for listeria in (humans and) animals in place. Listeria spp. is demonstrated on occasional basis in adult (meningitis) and aborted animals (bovine, sheep/goat) submitted for post mortem examination and very sporadic in milk.

The dairy goat industry occasionally performs testing on bulk milk.

2. Measures in place[(b)]

By positive findings in single cases in farms with a public function such as pet farms restrictions took in place.

3. Notification system in place to the national competent authority[(c)]

Listeriosis in animals (all species) is reportable but not notifiable[11].

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

There seems a tendency of an increase in the number of cases of listeria meningo-encephalitis in adult dairy goats. In some cases, large numbers of goats per farm are affected.

5. Additional information

https://www.gddiergezondheid.nl/listeriose-kleine-herkauwers

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(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

[11] No imposing measures but only an obligation to report the cases at regular time intervals for trend estimations. By positive findings by animals hold in locations with a public function such as pet farms the report interval is mostly very short and measures are advised to minimalize the risk.

(d): Minimum five years.

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

General evaluation*: Q-fever (*Coxiella burnetti*)

1. History of the disease and/or infection in the country[(a)]

The Q-fever outbreak in the period 2005-2010 counted about 45,000 infected people, of which 4304 have experienced Q fever[12]. 95 people are known to have died as a result of the infection. Many (unknown how many but it concerns thousands) still suffer from the chronic Q fever form.

The details of the origin of the outbreak are still not known but the source of the human infection is strong related to goats hold for milk production.

2. Evaluation of status, trends and relevance as a source for humans

After the large Q fever outbreak several measures have been taken which have resulted in the last years in a situation in which the number of human cases is the same or even lower compared to the years before 2007.

In 2019, 18 patients with acute Q fever were reported. As in previous years, the majority of patients were male (83%). The median age was 62 years). Four patients had probably contracted the disease abroad.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

Epidemic Q Fever in Humans in the Netherlands: https://www.ncbi.nlm.nih.gov/pubmed/22711640

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: Q-fever (*Coxiella burnetti*)

1. Monitoring/Surveillance/Control programmes system[(a)]

On dairy sheep and dairy goat farms (>50 animals),, a monitoring programme is in place in which on a monthly basis bulk milk samples are tested using a *Coxiella burnetii* PCR. Screening is

[12] https://www.rivm.nl/q-koorts

performed at Animal Health services and confirmation in repeated, official samples by NVWA is performed by WBVR the National Reference Lab.

Placentas from small and large ruminants submitted for post-mortem examination are tested for *Coxiella burnetii* using a PCR or immunohistochemistry in cases macroscopic examination does not exclude an infection further investigation take place at farm level.

2. Measures in place[(b)]

Abortion in sheep and goats is notifiable as soon as the number of abortions per farm is higher than normal for that specific farm. On dairy sheep and dairy goat farms, a monitoring programme is in place in which on a monthly basis bulk milk samples are tested using a *Coxiella burnetii* PCR.

Vaccination (Coxevac®) of small ruminants started on a voluntary basis in 2008, became mandatory for the southern provinces in 2009, and for all the provinces of the Netherlands in 2010. It has been the most important measure taken during the Q fever outbreak.

3. Notification system in place to the national competent authority[(c)]

Yes but only dairy sheep and goats.

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

No confirmed cases of *Coxiella burnetii* in bulkmilk monitoring programme have been found in 2019

For the last years, there are hardly new positive cases of Coxiella abortions in small ruminants and none in 2019.

When a potential animal source can be identified in a human Q fever patient, the health municipal authority (GGD) requests the NVWA to carry out a source study. In 2019, the GGD made seven reports of human patients to the NVWA. In 1 case it concerned the owner of a meat sheep farm. No increased number of abortions was observed on this farm. There was no further evidence that animals on this farm or other farms in the area were infected with *C. burnetti*.

In 2 cases it was a visit to a public location where the animals were not fully vaccinated. Both locations were visited by the NVWA and measures were imposed on the companies. Samples were taken from various animals at one of these locations. No *C. burnetti* could be detected in the study material.

Four other patients had no direct contact with animals. At the request of the GGD, the NVWA investigated whether there were *C. burnetii* indications in the environment where the patients lived in. This was not the case because, for example, the animals in the nearby located farms had been appropriate vaccinated.

5. Additional info

Specific GD monitoring in 2017-2018: on 74,5 per cent of the Dutch dairy cattle farms, antibodies against *Coxiella burnetii* were demonstrated in bulk milk[13].

Since 2013 the GD investigated cattle abortion material with IHC and PCR tests. A few (1-3) cases are found positives per year.

[13] GD communication (begeleidende commissie monitoring dierziekte -runderen-) June 2020.

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: rabies

1. History of the disease and/or infection in the country[(a)]

Classic rabies virus is absent.

Bat-related rabies viruses, (European Bat Lyssa Virus -EBLV-) is present (endemic).

2. Evaluation of status, trends and relevance as a source for humans

The incidence of human rabies infection in The Netherlands is very low. Since 1962, only eight patients with rabies infection have been described. All eight persons were infected with the virus abroad.

There are never been native cases related to EBLV.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

Dimmendaal M. et al. (2019) Een patiënt met rabiës in public health perspectief. Infectieziekten Bulletin: https://magazines.rivm.nl/2019/03/infectieziekten-bulletin/een-pati%C3%ABnt-met-rabi%C3%ABs-public-health-perspectief

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: rabies

1. Monitoring/Surveillance/Control programmes system[(a)]

Passive surveillance (clinical, postmortem).

Since 1987 until 2012 all bats found dead were investigated. Since 2013 only the bats who probably have had contact with people. The direct IFT is currently the "gold standard" test and is recommended by both the WHO and the OIE. In May 2018, the OIE identified the PCR test as a good alternative to the direct IFT. From 2019 on the NVWA reports also animals that have only been tested by PCR.

2. Measures in place[(b)]

Test and cull.

3. Notification system in place to the national competent authority[(c)]

Yes, all animal species.

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

In the Netherlands, the classic rabies virus has been eliminated in wild and domestic animals.

The last case was an imported dog from Morocco in 2012.

Specific to bat-related rabies viruses, European Bat Lyssa Virus (EBLV) 1 and 2 are endemic.

About 8 infection with EBLV are yearly confirmed and these concern only two of the sixteen occurring Dutch bat species, namely the late-kite (Eptesicus serotinus) and the lake bat (Myotis dasycneme). The prevalence of EBLV-1 among the Dutch studied late-kite population is 23.6%.

The 2019 findings are comparable to the previous years.

5. Additional information

WHO European rabies database with query possibilities: https://www.who-rabies-bulletin.org/site-page/queries

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: salmonellosis

1. History of the disease and/or infection in the country[(a)]

Insight into the trend of salmonellosis is obtained through the laboratory surveillance carried out by the Center for Infectious Disease Control (CIb) within the RIVM since the 1980s, with an estimated coverage of 64% of the Dutch population (for laboratory-confirmed salmonellosis)[14]. Incidental cases of human salmonellosis are not required to report in the Netherlands, in contrast to various other European countries. Salmonellosis is only subject to report if it concerns a human cluster of 2 or more related cases with an origin in consumption of contaminated food or drinking water. Trends of Salmonella in humans are best described in relation to their sources. As National Reference Center for Salmonella, RIVM routinely receives isolates for typing from cattle, pigs, poultry and pets, including reptiles. In addition, isolates from other farm animals such as horses, goats, sheep and ducks, and from environmental samples and foodstuffs imports will be typed. The isolates come from a variety of monitoring programs on farms, slaughterhouses and at supermarkets. These programs are often part of the work of the GD, NVWA and RIVM, but isolates are also submitted by the veterinary faculty, zoos and animal feed industry. Periodically, human data such as serotyping, molecular typing and resistance (determined by WBVR) are sent to the ECDC. These data are now available to the public and can be studied, aggregated by serotype, age, gender, period and country.[15]

2. Evaluation of status, trends and relevance as a source for humans

Since the beginning of this century the number of people with salmonellosis has halved in the Netherlands and was lowest ever in 2017[16]. This corresponds well with findings in the surveillance of farm animals, and meat at retail. So intervention measures in farm animals and improvements in the foodproduction process seem to have had an effect. In the period 2013-2017 the incidence of patients with laboratory confirmed salmonellosis was 8,9-9,3 per 100.000 inhabitants with an estimated 27.440 cases of acute gastro-enteritis caused by salmonella in the general population in 2017. Therewith the Netherlands has one of the lowest incidences of Europe. The most important source is pig-meat (28%) followed by table-eggs (15%). This favorable development is interrupted by food related outbreaks with high direct and indirect costs for the society. Apart from this the development of antibiotic resistance is reason for concern in particular the development of multiresistance, ESBL-production in several serotypes and resistance against fluoroquinolones. There are also new sources of contamination. Pet reptiles, for example, are estimated to be responsible for 5% of cases of salmonellosis.

[14] https://www.rivm.nl/publicaties/staat-van-zoonosen-2017
[15] https://ecdc.europa.eu/en/surveillance-atlas-infectious-diseases
[16] Pelt, Wilfrid & Wit, Ben. (2018). Salmonella Netherlands 2018 (2017). 29.

In 2019, the number of Salmonella isolates (n = 1002) from human patients in the Netherlands sent in by the participating regional laboratories was slightly higher than in 2017 (977) and 2018 (952). The total number of laboratory confirmed cases in the Netherlands, based on the coverage of the germ surveillance with the regional laboratories, the estimate is 1566. The trend in human salmonellosis, after a long period of gradual decline, has been fairly stable since 2013, with the same number of entrants with the same seasonal fluctuation as in previous years. As in previous years, the serotype Enteritidis (35%), Typhimurium (12%) and monophasic Typhimurium (13%) are the most common causative agents of human salmonellosis in 2019. Other serotypes individually account for less than 3% of the total.

In 2019, the share (absolute and relative) of S. Typhimurium and monophasic S. Typhimurium was lower (-22%) than in previous years, which is in line with the long-term trend of gradual decline. Notable was the high proportion of Enteritidis, with more human cases than in 2016/2017 when an outbreak related to Polish eggs caused more than 200 human cases of *S. Enteritids* in the Netherlands. There is currently no clear explanation for this. As usual, infections with *S. Enteritidis* contracted abroad are significantly more than S. Typhimurium in 2019 (19% for Enteritidis, <10% for Typhimurium and the monophasic variant, and around 10% for the total of other serotypes). These fractions do not deviate significantly from last year.

The proportion of *S. Infantis* infections contracted abroad fell markedly from 22% in 2018 to 8% in 2019, while the absolute number of cases remained the same. In proportion, therefore, more *S. Infantis i*nfections are contracted within the Netherlands.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

Every year an update of the data in humans and animals and in food is given in the Infectious Diseases Bulletin.[17]

Other general information is periodically given in the 'State of food safety[18]' and the publication 'Registration of food-related outbreaks in the Netherlands'[19]

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

[17] https://www.rivm.nl/infectieziekten-bulletin

[18] https://www.nvwa.nl/over-de-nvwa/hoe-de-nvwa-werkt/staten-van/staat-van-voedselveiligheid

[19] https://rivm.openrepository.com/handle/10029/622161

Description of Monitoring/Surveillance/Control programmes system*: salmonellosis

1. Monitoring/Surveillance/Control programmes system[(a)]

Poultry

The control of zoonotic Salmonella in poultry is regulated at European level by Regulation (EC) No 2160/2003 and its implementing regulations (EC) No 200/2010 and (EC) No 517/2011. By abolishing the Product Boards as of January 1, 2015, the NVWA has been carrying out the control since that date. A monitoring obligation applies to poultry. When a laboratory demonstrates one of the specifically mentioned Salmonella serotypes in a monitoring sample or in another sample submitted, they must report this to the NVWA. This reporting obligation goes at stable level and is handled as such. The holder can choose whether to request a verification investigation for the suspected stable or whether to accept the infection. If any other stables are present at a company in addition to the suspected stable, these will also be sampled by the NVWA. If the NVWA investigates a stable, in addition to microbiological research, research is also conducted into the presence of antibiotic residues. If residues of relevant antibiotics are demonstrated, the shed can also be declared contaminated, despite a negative result from the microbiological investigation. From January 1, 2018, this study has been replaced by a check of the logbook for the administration of antibiotics to the flock.

Cattle[20]

Passive surveillance i.e. in cases salmonella is found in carcasses that have been sent in for post-mortem examination by clinical problems.

Active private surveillance for example for dairy herds (bulk milk).

Swine[21]

Passive surveillance i.e. in cases salmonella is found in carcasses that have been sent in for post-mortem examination by clinical problems.

Active private surveillance for example a (serological) monitoring program is implemented and organized by two IQC-organizations[22]. Sampling is obligatory in finishers.

Sheep/goat[23]

Passive surveillance i.e. in case salmonella is found in carcasses that have been sent in for post-mortem examination by clinical problems.

Active private surveillance for example for dairy goats (bulk milk).

Project Surveillance Farm Animals

[20] Animal Health Services (GD) https://www.gdanimalhealth.com/

[21] Animal Health Services (GD) https://www.gdanimalhealth.com/

[22] Institute of Quality & Control (IQC): https://www.rva.nl/en/accredited-organisations/details/264

[23] Animal Health Services (GD) https://www.gdanimalhealth.com/

In the context of a joint RIVM-NVWA project 'Surveillance Farm Animals', research is periodically conducted in a selected farm animal species.

Food

The NVWA monitors the entire food chain, from primary production companies to the retail sector, on legal limits and criteria, according to trends and identifying new risks. At slaughterhouses in the different meat chains, compliance with mandatory own research of these companies (Microbiological criteria for food Regulation (EC) No 2073/2005) is checked and samples are also taken by NVWA for verification.

2. Measures in place[(b)]

See above and hereunder

.

3. Notification system in place to the national competent authority[(c)]

Yes (poultry and food/feed conform the EU regulation.

Salmonellosis in all other species than poultry is reportable but not notifiable[24].

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

Poultry

An important part of the reduction of Salmonella infections in humans seems to be explained by the Salmonella control program in poultry. In all links of the production chain, both the monitoring of the former Product Boards for Livestock, Meat & Eggs (PVE -stopped after 2012-) and the monitoring of NVWA in stores showed a significant decrease of Salmonella infection. However, this stagnated after 2004, but turned out to continue to be seen in the monitoring of poultry meat in stores. From 2011, meat preparations (seasoned or marinated meat) and minced chicken are also considered; the contamination percentage in this is comparable to that in unprepared chicken meat.

Cattle

The number of units tested has increased steadily from between 10,000 and 11,000 in 2013 to approximately 15,000 in 2017 and subsequently decreased to about 9,300 in 2019. In these years, the annual proportion of positive units fluctuated between 6.3% and 9.4%. The estimated prevalence for the period 2017-2018 in veal calves is 17,9%[25].

The relevance as a source for humans has not changed in recent years. In 2017, 2% of human cases were attributed to cattle[26].

Additional information on dairy herds: Between 2013 and 2019, the proportion of bulk milk samples in which antibodies against *Salmonella* spp. were detected using an ELISA, fluctuated between 3%

[24] By animals no imposing measures are in place but only an obligation to report the cases at regular time intervals for trend estimations. By positive findings by animals hold in locations with a public function such as pet farms the report interval is mostly very short and measures are advised to minimalize the risk. For direct consumption or commercialization of food product at the farm compulsory measures can be taken conform the EU Food Law.

[25] GD communication (begeleidende commissie monitoring dierziekte -runderen-) June 2020

[26] https://www.rivm.nl/publicaties/staat-van-zoonosen-2017 page 50

and 12%, with higher proportions of positive samples in the autumn. Between 2013 and 2018, the running annual average of these proportions varied between 5% and 10%. In 2019, this running annual average had decreased to 3% to 4%.

Swine

The results of the compulsory monitoring of slaughter pigs, depend strongly on the chosen cut-off (OD%) of the ELISA test. With a cut-off value of 40% the number of positive animals is 7916 or 16.7% of the total number of 47,418. With a chosen cut-off value of 10% OD the number of positive animals is 23,516 or 49.7%. These figures do not differ substantially from previous years.

Sheep/goat

A few cases per year. Since 2014, some cases of salmonellosis in goat kids. At some farms, people have also been infected by the same bacterium as demonstrated in the kids.

Project Surveillance Farm Animals

In the context of the project research was conducted in broilers in 2018 and 2019.

The prevalence of S. Typhimurium en S. Enteritidis in broilers is low (around 0.1%). However, the other Salmonella serotypes have also been determined. The most commonly found serotypes were S. Paratyphi B var Java and S. Infantis. In addition, S. Agona, S. Goldcoast and S. Saint Paul were each found on one farm. S. Infantis was also detected in a stool sample in one human participant in this study. (animal caretaker or spouse of owner)

Food

Salmonella was found in ~ 3% of the samples of fresh meat and meat preparations from chicken in 2019, which has been stable for several years.

In fresh pork, the prevalence in 2019 (1.0%) (2017 -0.7%, 2018 - 1.3%). For lamb, the prevalence was 0.4% (2016 - 1.8%, 2017 - 1.0, in 2018 - 0.4% In fresh beef / veal, the percentage of positives has been below 1.0% for years (0.8% in 2019) .

The prevalence is also low in other batches of fresh meat, herbs, vegetables, mussels etc**.**

5. Additional information

Most Salmonella infections are caused by eating contaminated food such as undercooked eggs, raw meat products, unpasteurized dairy products and, incidentally, by (pre-cut) raw fruits and vegetables. The source attribution model estimates the frequency distribution of serotypes in humans based on the frequency among the sources. This also includes the volume consumed, the degree of contamination and the fraction of the food that is consumed raw or well cooked. It also includes the part caused by reptiles that are kept as pets and where contamination occurs through direct contact with the animals or contact with an environment contaminated by the reptiles (terrarium).

Although it has not been the dominant source for the past six years, eggs, as in other European countries over the past 20 years, have been the main source of salmonellosis. As from 2009, if eggs come from S. Enteritidis / S. Typhimurium-positive flocks, which may no longer be marketed as table eggs for direct human consumption (EC Decree 1237/2007). These eggs are only suitable for the egg processing industry. In contrast to the historically lowest estimate of egg-related infections in 2018 (18%) compared to the past 35 years, in 2019 we see an increase in the number

of egg-related infections to 26%. This is mainly due to the relatively higher number of reported S. Enteritidis infections in 2019.

The share of pigs is still the highest, reaching 28% in 2019. This is lower than in 2018 (34%) and is mainly caused by the lower number of reported S. Typhimurium infections. Only 2% came from beef and 6% from chicken.

7% of Salmonella infections were caused by contact with reptiles. Salmonella is a commensal gut bacterium in reptiles.

Of ~ 19%, the source could not be estimated or the Salmonella infection had contracted abroad.

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: toxoplasmosis

1. History of the disease and/or infection in the country[(a)]

Based on the estimated incidence of two children with congenital toxoplasmosis per thousand live births per year toxoplasmosis is the main food-borne zoonoses in the Netherlands with a estimated disease burden of 3,620 DALYs per year. Since 2016, the DALY calculation has been adjusted on the new European disability weights (in which the chronic sequelae due to congenital toxoplasmosis is estimated lower than previously) is the estimated burden of disease 1,900 DALYs per year.

2. Evaluation of status, trends and relevance as a source for humans

Toxoplasmosis is not a reportable human disease and is not included in the screening program for pregnant women in the Netherlands. The diagnostics are provided by different types laboratories and requested of different kinds applicants (obstetricians, gynecologists, ophthalmologists, internists, occupational physicians). Therefore there is no good insight into (the trend in) the number of cases per year.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information
Kortbeek L.M., et al. (2009) Congenital toxoplasmosis and DALYs in the Netherlands. Mem Inst Oswaldo europa.eu/legal-content/NL/ Cruz 104:370-373 Haagsma, J. A., et al. (2015) Assessing disability weights based on the responses of 30,660 people from four European countries. Popul Health Popul Health Metr 13(1): 10. Pijnacker, R., et al. (2018) Disease burden of foodr-elated pathogens in the Netherlands, 2018, Rijksinstituut voor Volksgezondheid en Milieu RIVM.
* For each zoonotic agent (a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country (b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: toxoplasmosis

1. Monitoring/Surveillance/Control programmes system[(a)]
Passive surveillance in animals (i.e. small ruminants after abortion) submitted for clinical and post mortem examination to different institutions.
2. Measures in place[(b)]
Risk communication
3. Notification system in place to the national competent authority[(c)]
Toxoplasmosis is in all animal species reportable but not notifiable[27].
4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)] *T. gondii* infection often progresses in animals asymptomatic, although (congenital) toxoplasmosis with neurological and ocular symptoms or abortion can occur. It is by small ruminants a major cause of abortion. Per year a few cases are confirmed.
5. Additional information
In a source attribution study is calculated that within the meat-related infections in the Netherlands beef has a much larger share of human toxoplasmic infections then pork, mutton and mixed meat

[27] By animals no imposing measures are in place but only an obligation to report the cases at regular time intervals for trend estimations. By positive findings by animals hold in locations with a public function such as pet farms the report interval is mostly very short and measures are advised to minimalize the risk. For direct consumption or commercialization of food product at the farm compulsory measures can be taken conform the EU Food Law.

products together[28]. Beef is in unlike mutton, relatively uncontaminated, but because of its frequent raw consumption (especially filet américain), is the estimated share in human infections high.

* **For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent**

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: trichinellosis

1. History of the disease and/or infection in the country[(a)]

The disease in domestic animals is absent since 2007.

Feral pigs, wild boars and foxes may be infected with T*. britovi* and *T. spiralis / T. pseudospiralis*, but the prevalence is very low.

In humans **is** Trichinellosis a notifiable disease. Only an occasional Trichinella patient is reported and then the suspected origin of the infection is almost always located in a country where Trichinella is still endemic.

2. Evaluation of status, trends and relevance as a source for humans

The diagnosis of Trichinella is mainly based on serology. In the Netherlands, serology is only carried out by RIVM. The sera are screened with an ELISA and confirmed by an immunoblot in case of a positive result. In case of special results, consultations are held with the reference center in Rome (EU Reference Laboratory for Parasites, ISS, Dr. E. Pozio). Two patients had a low positive response in ELISA in 2019, which however could not be confirmed in the immunoblot. This reaction can be caused by an infection in the past or by a nonspecific reaction. In addition, a positive response was found in a 28-year-old woman who could be confirmed. This concerned a patient who developed symptoms of gastroenteritis followed by muscle pain and tingling and mild eosinophilia after a trip to Kenya. She was treated with albendazole and prednisone and the symptoms have slowly started to decrease since then. The conclusion is that one trichinellosis was diagnosed serologically in a patient in the Netherlands in 2019 and the infestation was contracted abroad.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

[28] Opsteegh M., et al. (2011) A quantitative microbial risk assessment for meatborne *Toxoplasma gondii* infection in the Netherlands. Int J Food Microbiol 150: 103-114

None

4. Additional information

https://lci.rivm.nl/richtlijnen/trichinellose

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system: trichinellosis

1. Monitoring/Surveillance/Control programmes system[(a)]

Consumption animals, which are sensitive to *Trichinella* spp., must be investigated according to Directive EU 2075/2005 using the artificial digestion method. However, the risk is marginal when pigs are kept indoors and therefore EU legislation in 2015 adapted in such a way that in principle slaughter pigs, which are kept under controlled biosecurity conditions (controlled housing), no longer need to be tested in Europe. In the Netherlands, control of all pigs, horses and wild boars for Trichinella still takes place during the slaughter phase. and is done by examining one (meat pig) to five grams (horse and wild boar) muscle meat from a predilection site of each carcass for the appearance of Trichinella. Although the risk of infection in pigs kept under controlled housing systems is therefore minimal, there is a risk for kept pigs and game, because Trichinella is endemic to sensitive wild omnivorous and carnivorous animals (game cycle).

2. Measures in place[(b)]

Test and cull/freeze treatment.

3. Notification system in place to the national competent authority[(c)]

Yes

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

In the Netherlands, all consumption animals are still tested with the artificial digestion method.

In 2019 15,791,062 pigs for slaughter, 2,020 horses for slaughter and 5,012 wild boars were routinely examined for Trichinella. None of the animals were found to be positive.

Serological monitoring of Trichinella in wild boars has been discontinued in 2016 so that there is no longer any insight into low-grade infestation in the wild cycle.

5. Additional information

None

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: tuberculosis due to *M. bovis*

1. History of the disease and/or infection in the country[(a)]

Every year we have seen a steady decline in the number of tuberculosis patients in the Netherlands. Last years about 850 new cases of tuberculosis and 1500 tuberculosis infections. The most of the cases (75%) are imported and caused by *Mycobacterium tuberculosis (*97%), in 1% of cases by *M. africanum*, and in 1-1.5% by *M. bovis*.

OIE status: free in domestic and wild animals since 1999

2. Evaluation of status, trends and relevance as a source for humans

Every year there are an average of twelve *M. bovis*, patients of which approximately 30% are born in the Netherlands.

The epidemiological situation in 2019 is unchanged compared to previous years.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

https://www.ecdc.europa.eu/en/publications-data/tuberculosis-surveillance-and-monitoring-europe-2019

https://www.rivm.nl/tuberculose/surveillance

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: tuberculosis due to *M. bovis*

1. Monitoring/Surveillance/Control programmes system[(a)]

Tuberculosis (TB) monitoring in farm animals in the Netherlands is mainly based on slaughterhouse surveillance (post-slaughter inspection). In addition tuberculin test takes place at export of animals to third countries (countries outside the EU), in breeding animals for artificial insemination and in clinical suspicions, especially in zoos. Tuberculin testing takes place also for imported animals after report of an infection of the (abroad) farm of the origin.

2. Measures in place[(b)]

Test and cull.

3. Notification system in place to the national competent authority[(c)]

Yes, for all animal species

4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]

There is a risk of introduction of bovine tuberculosis if animals are brought in the Netherlands from free farms abroad in a non-free areas because the TB status of an exporting farm can change after animals have been traded (at a low control frequency). The NVWA receives several such reports from foreign veterinary services every year.

In 2019 one introduction was identified. It concerned a veal calf from a flock imported from Ireland. These calves had been brought in from a company that lost TB release status. After examination, one animal was found to be positive for TB, both PCR and bacteriological isolation were positive. Subsequently, all 1,800 animals on the farm were negative tested.

5. Additional information

The Netherlands is OIE *Mycobacterium tuberculosis* complex free since 1999: https://www.oie.int/wahis_2/public/wahid.php/Countryinformation/Animalsituation

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: VTEC

1. History of the disease and/or infection in the country[(a)]

Since January 1999 there is humane surveillance of STEC O157 infections in the Netherlands. That same year is STEC O157 also (human) reportable by law. In 2007 STEC non-O157 was included in surveillance. The reporting criteria for STEC are in 2016 changed, with the specification of the reporting obligation to acute infections with minimal symptoms of diarrhea, blood in the stool and / or vomiting. These changes cause that long-term or mild symptoms infections are no longer subject to notification.

2. Evaluation of status, trends and relevance as a source for humans

The disadvantage of the change in the notification specification is that there is a trend break in the number of STEC reports.

The number of STEC O157 infections is in the last year comparable with the previous years. (approx. 60 cases).

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

Recently[29], a Dutch attribution study was conducted with data and isolates of patients and cattle, sheep and goats, pigs and poultry from the surveillance data 2010 to 2014. This shows that approximately half of the patients can be attributed to bovine animals as reservoir and O-types O157, O26, O91 and O103 were the most found (61-75%). About a quarter of the infections can be attributed to sheep and goats, where STEC O146 was the most found infection (71-77%). Pigs and poultry are smaller STEC reservoirs. Children under five and men had an increased risk of STEC infection. In the summer and fall, and in the countryside, there is the risk of infection the highest. Further risk factors were consumption of beef, raw or undercooked meat and salami.

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official "disease status" to be specified for the whole country and/or specific regions within the country

(b): If applicable

[29] Mughini-Gras L., et al. (2018) Attribution of human. infections with Shiga toxin-producing *Escherichia coli* to livestock sources and identification of the source-specific risk factors, The Netherlands (2010-2014). Zoonoses Public Health 65: e8-e22.

Description of Monitoring/Surveillance/Control programmes system*: VTEC
1. Monitoring/Surveillance/Control programmes system[(a)]
There is a monitoring system in place for mussels, oysters and imported food (i.e. farmed fish and poultry meat) as well as incidental monitoring projects (i.e. on broilers in 2018).
2. Measures in place[(b)]
Conform EU Food Law
3. Notification system in place to the national competent authority[(c)]
No (animals), yes (food)
4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)]
The monitoring system and projects results in the last year are comparable with the previous years.
5. Additional information
https://www.nvwa.nl/onderwerpen/e-coli-bacterien-stec-ehec/documenten

* For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent

(a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website.

(c): Mandatory: Yes/No.

(d): Minimum five years.

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

General evaluation*: yersiniosis

1. History of the disease and/or infection in the country[(a)]

Comparable at EU level.

2. Evaluation of status, trends and relevance as a source for humans

Incidental cases of human yersiniosis are not anymore subject to a notification obligation in the Netherlands. Yersiniosis is only required to report if it concerns a human cluster of two or more related cases with a probable origin in consumption of contaminated food or drinking water.

Y. pestis is well notifiable.

3. Any recent specific action in the Member State or suggested for the European Union[(b)]

None

4. Additional information

None

* For each zoonotic agent

(a): Epidemiological evaluation (trends and sources) over time until recent/current situation for the different relevant matrixes (food, feed, animal). If relevant: the official “disease status” to be specified for the whole country and/or specific regions within the country

(b): If applicable

Description of Monitoring/Surveillance/Control programmes system*: yersiniosis
1. Monitoring/Surveillance/Control programmes system[(a)]
Passive surveillance in animals (i.e. small ruminants and hares) submitted for post mortem examination to the GD and DWHC
2. Measures in place[(b)]
See hereunder
3. Notification system in place to the national competent authority[(c)]
Yersiniosis is in all animal species reportable but not notifiable[30].
4. Results of investigations and national evaluation of the situation, the trends [(d)] and sources of infection[(e)] Per year a few cases are demonstrated.
5. Additional information
None
*** For all combinations of zoonotic agents and matrix (Food, Feed and Animals) for 'Prevalence' and 'Disease Status': one text form reported per each combination of matrix/zoonoses or zoonotic agent** (a): Sampling scheme (sampling strategy, frequency of the sampling, type of specimen taken, methods of sampling (description of sampling techniques) + testing scheme (case definition, diagnostic/analytical methods used, diagnostic flow (parallel testing, serial testing) to assign and define cases. If programme approved by the EC, please provide link to the specific programme in the Commission`s website. (b): The control program/strategies in place, including vaccination if relevant. If applicable a description of how eradication measures are/were implemented, measures in case of the positive findings or single cases; any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation, if applicable. If programme approved by the EC, please provide link to the specific programme in the Commission`s website. (c): Mandatory: Yes/No. (d): Minimum five years. (e): Relevance of the findings in animals to findings in foodstuffs and for human cases (as a source of infection).

[30] By animals no imposing measures are in place but only an obligation to report the cases at regular time intervals for trend estimations. By positive findings by animals hold in locations with a public function such as pet farms the report interval is mostly very short and measures are advised to minimalize the risk. For direct consumption or commercialization of food product at the farm compulsory measures can be taken conform the EU Food Law.

Food-borne Outbreaks

1. System in place for identification, epidemiological investigations and reporting of food-borne outbreaks

Identification of food-borne outbreaks happens on various levels and ways. People can report a (possible) outbreak to the Netherlands Food and Consumer Product Safety Authority (NVWA); laboratories and physicians report (possible) outbreaks to the regional Public Health Services (PHS); PHS can observe (possible) outbreaks in the reports of diseases they receive; the National Institute for Public Health and the Environment (RIVM) can observe (possible) outbreaks in the reports of notifiable diseases or in the laboratory surveillance of Salmonella, Shigella, STEC, Listeria or Hepatitis A.

Epidemiological investigations are mainly done by the PHS, with involvement of the RIVM for coordination and analysing the data when cases live in more than 1 PHS-region. Food investigations are done by the NVWA. Where needed and/or possible PHS, RIVM, and NVWA work together in solving the outbreak.

The PHS report their outbreaks to the RIVM as soon as they are aware of it, as they have to do by law. The NVWA record the reports they receive, which is analysed once a year by the RIVM together with the mandatory reports sent by the PHS.

2. Description of the types of outbreaks covered by the reporting

In the outbreaks reported by citizens at the NVWA, it often remains unclear what the agent and/or the vehicle was.

3. National evaluation of the reported outbreaks in the country[(a)]

The number of reported outbreaks increased since 2015 (n=406), although 2018 (n=756) and 2019 (n=735) were comparable. The increase is only seen in the small outbreaks (<10 cases per outbreak) reported by citizens at the NVWA. In 5.7% of the outbreaks a pathogen was found in (human) cases and/or food or environmental swaps. Food tested positive in only 6 outbreaks (*Salmonella*-eggs (2x), *Salmonella*-chicken, *Listeria*-cold cuts, norovirus-oysters, norovirus-chocolates). Norovirus remained the most important pathogen (n=17), followed by *Salmonella* (n=13) and *Campylobacter* (n=7). In 2018, the order differed, with norovirus still first (n=16), followed by *Campylobacter* (n=13) and *Salmonella* (n=7). Remarkable is that the (mean) number of cases per outbreak is lower for Campylobacter, compared to both norovirus and Salmonella.

4. Descriptions of single outbreaks of special interest

The Listeria outbreak caused by contaminated cold cuts was eye-catching. It showed that Listeria outbreaks can be persistent over years in low numbers, and several strains can be part of one outbreak/source. The combined database with sequence data of human and food isolates, which is a collaboration between NVWA and RIVM, turned out to be leading in finding the source.

5. Control measures or other actions taken to improve the situation
-
6. Any specific action decided in the Member State or suggested for the European Union as a whole on the basis of the recent/current situation
-
7. Additional information
- In 2019 a reorganization took place which lead to the creation of a centralized institute, the Wageningen Food Safety Research (-WFSR- https://www.wur.nl/en/Research-Results/Research-Institutes/food-safety-research.htm). WFSR will perform various tasks on behalf by the NVWA in the food domain such as method development, measuring, risk assessment and risk consultancy and probably will contribute to enhance the surveillance and response to FBO's in the next years.
(a): Trends in numbers of outbreaks and numbers of human cases involved, relevance of the different causative agents, food categories and the agent/food category combinations, relevance of the different type of places of food production and preparation in outbreaks, evaluation of the severity of the human cases.

Institutions and laboratories involved in antimicrobial resistance monitoring and reporting

- **Wageningen BioVeterinairy Research (WBVR**)
  https://www.wur.nl/nl/Onderzoek-Resultaten/Onderzoeksinstituten/Bioveterinary-Research/Uitgelicht-1/Antibioticaresistentie-2.htm
  WBVR is the National Reference Laboratory for AMR

- **The Netherlands Food and Consumer Product Safety Authority (NVWA)**
  https://www.nvwa.nl/onderwerpen/antibiotica-in-de-veehouderij
  The NVWA is the Competent Authority (CA) on i.a. food safety and AMR. NVWA performs the sampling of caeca at slaughter and meat samples from retail for the mandatory AMR monitoring (2013/652/EU) More, voluntary, AMR work is done by analysing faecal or caecal samples from different animal species, meat from different animal species and other food products.
  WBVR analyses the animal samples, caeca and faeces and performs sensitivity test on isolates.
  The former NVWA laboratory is, from 1st of June 2019 part of Wageningen University & Research. The new laboratory is a merger of RIKILT and the former NVWA laboratory, and is called Wageningen Food Safety Research (WFSR).

- **Wageningen Food Safety Research (WFSR)**
  https://www.wur.nl/en/Research-Results/Research-Institutes/food-safety-research.htm
  WFSR analyses meat and other food samples and tests isolates on sensitivity to antibiotic substances. Molecular screening, e.g. colistin and CP, and typing of isolates , ESBL/AmpC/CP suspected isolates is performed by WBVR.

The NVWA provides the National Reporting Officer.

Together both institutes coordinate the monitoring (AMR), both mandatory and voluntary, and publish a national report on use of antibiotics and resistance data in livestock. This is combined in the same report with data on antibiotic use and resistance in humans (Nethmap - MARAN)

Short description of the institutions and laboratories involved in data collection and reporting

General Antimicrobial Resistance Evaluation

1. Situation and epidemiological evolution (trends and sources) regarding AMR to critically important antimicrobials[(a)] (CIAs) over time until recent situation

For an overview of the trends see Nethmap - MARAN

2. Public health relevance of the findings on food-borne AMR in animals and foodstuffs

Antibiotic Usage

Sales of antimicrobial veterinary medicinal products in 2019 (150 tonnes) decreased by 16.1 % compared to 2018 (179 tonnes). This means that the total reduction compared to the index year 2009 was almost 70%, which is the result of combined efforts of the authorities, the livestock sectors and the veterinarians. Antibiotic usage in veal calves and pigs decreased compared to 2018, while antibiotic use in dairy cattle and broilers was relatively stable at a low level over the last four years. Use in turkeys and rabbits shows substantial fluctuations and the goat sector is currently implementing a system for monitoring antibiotic use. The different livestock sectors each have a typical pattern in use of first, second and third choice antibiotics. In accordance with the recent WHO- classification of polymyxins as Highest Priority Critically Important Antibiotic, the Netherlands Veterinary Medicines Institute considers polymyxins as third choice drugs, and this antibiotic class is reported as such. The consequence is that similar as for fluoroquinolones and 3rd/4th generation cephalosporins, the target for its use from 2021 onwards will be no usage. (Netherlands Veterinary Medicines Institute (SDa))

Antimicrobial resistance

In 2019, S. Enteritidis (34%) followed by S. Typhimurium (12%) together with the monophasic variant of Typhimurium (S. enterica subspecies enterica 1,4,[5],12:i:-) (8%), were most frequently isolated from human clinical salmonellosis cases. In pigs, S. Typhimurium (36%) and the monophasic variant of S. Typhimurium (20%) dominated. In cattle, S. Typhimurium (35%) and S. Dublin (29%) were most commonly isolated. In poultry (including poultry products), the most frequently isolated serovars were S. Infantis (38%), S. Paratyphi B var. Java (S. Java, 11%) and S. Enteritidis (10%). Among laying hens, the most frequent isolated serotype was S. Enteritidis (31%), followed by S. Typhimurium (15%). This shows the complexity of the Salmonella epidemiology, with a variety of potential sources for human infection, including the Dutch food chain, but also travel and imported food products. Overall, the highest resistance proportions in Salmonella were observed for tetracycline, sulfamethoxazole, ampicillin, ciprofloxacin, nalidixic acid, and trimethoprim. Highest levels of resistance were found in the monophasic S. Typhimurium, S. Infantis, S. Paratyphi B var. Java from broilers, S. Kentucky (travel related), S. Chester, and to a lesser extent in S. Typhimurium. The highest levels of resistance among S. Enteritidis, the main serovar in human infections, were primarily those for fluoroquinolones (ciprofloxacin and nalidixic acid) in isolates from human and poultry sources. Only 24 (1,3%) ESBL suspected isolates were detected of which 19 isolates (1,0%) were confirmed ESBL-producers mainly from humans. No carbapenemase producing Salmonella were found in 2019.

Proportions of resistance in C. jejuni isolates from caecal samples of broilers and meat thereof were traditionally high for quinolones and tetracycline and did not substantially change in 2019, compared to 2018. Resistance to macrolides was rarely detected in C. jejuni isolates from broilers and poultry meat, and was at low levels in C. coli isolates from broilers and poultry meat. Overall, resistance proportions were higher in C. coli than in C. jejuni isolates. Ciprofloxacin resistance in

Campylobacter isolates from human patients was again high in 2019 (with a substantial increase compared to 2018), which is a concern for public health.

The increasing tendency for resistance against ampicillin, sulfamethoxazole, tetracycline and trimethoprim in human STEC O157 isolates since 2009 did not continue in 2018 and 2019. Resistance to the quinolones (ciprofloxacin and nalidixic acid) and 3rd generation cephalosporins was not detected in human STEC O157 isolates in 2019.

Indicator E. coli isolated from randomly collected caecal samples of food animals at slaughter and meat thereof are most suited to study the effects of any interventions on antibiotic use.

Among these indicator E. coli from animals and meat, resistance levels to ampicillin, tetracycline, sulfamethoxazole and trimethoprim were still relatively high in broilers, pigs, (white) veal calves and chicken and turkey meat. Resistance in indicator E. coli from caecal samples showed a tendency to stabilise in broilers, pigs and showed a slight decrease in veal calves. In dairy cattle resistance fluctuates at a low level. This is mostly in agreement with the use data reported. For the first time in twenty years no randomly selected indicator E. coli isolates resistant to extended spectrum cephalosporins were detected in faecal samples from broilers, pigs, dairy cattle and veal calves. Resistance to fluoroquinolones was at the same level as in 2018, and was still commonly present in indicator E. coli from caecal samples of broilers and meat thereof.

In 2019, a reduction in proportion of animals (prevalence determined with selective method) positive for ESBL/AmpC producing E. coli was observed in all livestock species compared to 2018. The largest reduction in the prevalence of ESBL/AmpC-producing E. coli has been achieved in broilers decreasing from 66.0% in 2014 to 17.9% in 2019, which can be considered a great success of the measures on reducing antimicrobial use initiated since 2011.

The overall prevalence of ESBL/AmpC-producing E. coli stabilised at a low level (2.8%) in retail meat. After substantial reductions before 2018, the prevalence in broiler meat remained stable in 2019, with 13.7% of the meat being positive for ESBL/AmpC-producing E. coli. As in previous years, no carbapenemase-producing Enterobacteriaceae were detected in livestock and companion animals.

In 2019, the mcr-1 gene, encoding for colistin resistance, was identified at very low level (< 1%) in caecal samples from slaughter pigs and white veal calves. For the second year in row mcr-4 was detected in white veal calves at low level (2%). No mcr genes were identified in E. coli isolated from broilers and in chicken meat indicative for a further decrease of mcr-1 in the broiler sector, although the use of colistin in broilers did increase again in 2019. This is important given the high priority of colistin for human medicine.

A comparative study using Whole Genome Sequencing of MRSA isolates revealed that most pig and poultry LA-MRSA isolates differed by more than 15 genes from human isolates from the national surveillance indicating an overall low genetic relatedness between isolates from livestock and humans. These first results suggest the emergence of a PVL-positive LA-MRSA subclade that is transmitted independent of livestock exposure. Further research into the genotypic and epidemiological characteristics of LA-MRSA isolates from livestock and humans is ongoing.

3. Recent actions taken to control AMR in food producing animals and food

There has been a very significant reduction in the use of antibiotics in animals in the Netherlands in recent years. Since prudent use policies have been enacted there has been a clear and associated decrease seen in levels of antimicrobial resistance in broilers, veal calves and pigs in the Netherlands. Good practices applied include transparency as regards recording and benchmarking of antibiotic use on farms, strengthening the role of veterinarians, taking measures to improve

animal health and promoting prudent use in line with official reduction targets. Promotion of the prudent use of antibiotics in animals has also been achieved by implementing policies based on expert scientific advice, monitoring antimicrobial resistance and promoting research and specific initiatives by producer organisations, with the support of government. These initiatives have been backed up with official supervision and controls in an overall One Health context. The findings, reported in MARAN and by SDa, highlight the progress that can be achieved in a relatively short time period to reduce the use of antibiotics in animals, and associated antimicrobial resistance, while safeguarding animal health and welfare, the economic viability of producers and avoiding an excessively legislative approach.

4. Any specific action decided in the Member State or suggestions to the European Union for actions to be taken against food-borne AMR threat

Discussions on the future of antimicrobial use in animals between government and stakeholders of the livestock industry resulted in 2008 in the setup of the Taskforce Antibiotic Resistance in Animal Husbandry. This taskforce comprised representatives from all parties within the animal production chain (advocacy organizations of farmers, meat processing industries, feed sup-pliers), the Royal Dutch Veterinary Association (KNMvD),the Ministry of Agriculture and the Ministry of Health).This Taskforce developed action plans per animal production sector (cattle, veal calves, poultry and pigs) as part of a Memorandum of Understanding (MoU), with the aim to control antimicrobial resistance in livestock. This MoU was assigned in 2008 by mentioned stakeholders involved in animal production and supported by the government(Anonymous, 2008). The action plans aimed at detailed monitoring of antimicrobial use at herd level, the monitor-ing of antimicrobial resistance, a clear separation of responsibilities for veterinarians and farmers in antibiotic prescriptions and the introduction of Farm Treatment Plans and Farm Health Plans. However, no strict targets or regulations for antimicrobial use were formulated yet. A debate in parliament followed where the public health concerns of extensive use of antimicrobials in farm animals were discussed. Subsequently, the government introduced a compulsory 50% reduction target in anti-microbial use in farm animals in 2013 compared to 2009. The target was set at -70% in 2015 by government decree in 2012

5. Additional information

(a): The CIAs depends on the bacterial species considered and the harmonised set of substances tested within the framework of the harmonised monitoring:

- For *Campylobacter* spp., macrolides (erythromycin) and fluoroquinolones (ciprofloxacin);
- For *Salmonella* and *E. coli*, 3rd and 4th generation cephalosporins (cefotaxime) and fluoroquinolones (ciprofloxacin) and colistin (polymyxin);

General Description of Antimicrobial Resistance Monitoring

1. General description of sampling design and strategy[(a)]

***Salmonella* spp.**

Bovine at slaughter:

No isolates

Pigs at slaughter:

20 isolates out of 385 samples carcass swab from NVWA verification 2073 at slaughter

Poultry at slaughter (voluntary):

38 boiler isolates out of 266 neck skin samples from NVWA verification 2073 at slaughter

Due to problems with the gathering of all the specific data required for reporting to EFSA, a small proportion of the Salmonella isolates in MARAN-2020 is reported to EFSA.

A selection of all human Salmonella isolates received by the RIVM from regional public health and other clinical laboratories (N = 1160) was sent to WBVR for susceptibility testing. Moreover, 720 isolates from non-human sources were tested. These were mainly isolates from pigs (N = 133), cattle (N = 105), broilers (N = 152), and layers (N = 12), as well as isolates from a diversity of other sources, including animal feed (N = 185), food products (e.g. seafood, spices), and other animals (e.g. goats, horses). Non-human isolates were mainly sent to the RIVM by the Animal Health Service in Deventer from a diversity of surveillance programs and diagnostic activities for clinical infections in animals, or they were obtained from the NVWA (mainly non-clinical isolates) through its routine Salmonella-control activities on farms, slaughterhouses (e.g. EC/2073.2005 verification projects broiler neck skin) and at retail.

***Campylobacter* spp.**

Broiler
Caecal samples (n=692) were collected at slaughter are analysed for *Campylobacter* spp. All isolates, 188 *C. jejuni* and 94 *C. coli* were sensitivity tested (MBD) by WBVR

Voluntary:

Meat

Meat from poultry meat, meat from other species, vegetables were sampled at retail and faeces from pig farms were analysed for *Campylobacter* spp. Isolates *C. jejuni* (n=122) and *C. coli* (n=106) were sensitivity tested (MBD) by WFSR.

Commensal *E. coli*

E. coli was analysed in caecal samples from broilers (315 isolates), pigs (304), veal calves (294) and faecal samples from dairy cattle (296) by WBVR. WFSR isolated strains from various poultry meat samples from retail (194 isolates 15/179 turkey and chicken resp.), meat from bovines (69), pork (40) and vegetables (83). Isolates were tested for sensitivity by MBD using panel compliant with EU/652/2013.

Specific monitoring of ESBL- or AmpC- or carbapenemase-producing *Salmonella* spp. and *E. coli*

All caecal samples taken at slaughter, broiler, pig, veal (white and rosé) and faecal samples from dairy cows, were selectively analysed by WBVR according to EURL-AR protocols for ESBL- or AmpC- or carbapenemase-producing *E. coli*.

Meat (fresh and 'preparations to be consumed raw' (beef)) samples from different species, lam, beef, pork and poultry, were randomly collected by NVWA at retail shops during the year.

Also imported chicken meat preparation and meat from 'exotic' animals was collected at BIP and wholesale respectively.

Other food samples, vegetables, imported frozen fish and shrimp from aquaculture, fresh herbs (wholesale and import) retail were randomly collected and analysed by NVWA, according to EURL-AR protocols for ESBL- or AmpC- or carbapenemase-producing *E. coli*.

All isolated were tested for sensitivity (MBD) on two panels antimicrobials compliant with EU/652/2013. Most animal and meat isolates were typed with molecular methods for the 'resistance mechanism' genes by WBVR.

In samples from project were faecal samples from broiler and pig farms were collected, specific monitoring of ESBL- or AmpC- or carbapenemase-producing *E. coli* was performed also.

2. Stratification procedure per animal population and food category

Pigs at slaughter

Sampling of caeca from 300 animals from unique holdings at the 6 slaughterhouses with the largest slaughter volume in 2018.

The amount of samples taken at each slaughterhouse is proportional to slaughter volume of Dutch animals at the specific slaughterhouse (2018) The sampling is specified per quarter for every slaughterhouse to get representation for all seasons

Calves at slaughter

300 caecal samples taken at 4 slaughterhouse were proportional to the sampling strategy defined in 2018 and based on slaughter volume of 2017. The sampling is specified per quarter for every slaughterhouse to get representation for all seasons

Poultry (broiler) at slaughter

Sampling of caeca of birds from 600 flocks at 15 slaughterhouses, together responsible for processing more than 60% of the volume of broiler meat from 'Dutch originated' flocks. The amount of samples taken at each slaughterhouse is proportional to the sampling strategy defined in 2018 and based on slaughter volume of 2017. The sampling is specified per quarter for every slaughterhouse to get representation for all seasons

For all animal species, only animals/flocks from 'Dutch origin' were sampled.

Dairy cows

300 Faecal samples were taken from 300 randomly selected dairy farms. The selection was done by inspectors.

Food samples

All sampling was performed randomly from retail shops across the country and spread over 2019.

Product sampled

No specific stratification was done, inspectors went 'shopping' at all retail outlets where the specific type of food, mostly meat but other products from different projects as well, are sold. Samples were used for analysis of prevalence for different pathogens and /or "AMR" isolates (indicator E. coli, Enterococci and specific analysis of ESBL, AmpC and CP producing E. coli.

In imported fish and shrimp produced in aquaculture analysis for ESBL, AmpC and CP producing Enterobacteriaceae. This sampling was performed at the Rotterdam harbour NVWA inspection post (BIP).

Some sampling was performed at wholesale or BIP. This is reported accordingly.

3. Randomisation procedure per animal population and food category

Pigs at slaughter

Caecal samples of Dutch reared animals were taken randomly from the selected herd by inspectors at the 5 selected slaughterhouses and send to WBVR for isolation of Campylobacter, indicator E. coli and for specific monitoring of ESBL, AmpC and carbapenemase producing E. coli. All caecal samples were screened for CP and *mcr*(complex) with RT PCR.

Calves at slaughter

Caecal samples of Dutch reared animals were taken randomly from the selected herd by inspectors at the 4 selected slaughterhouses and send to WBVR for isolation of Campylobacter, indicator E. coli and for specific monitoring of ESBL, AmpC and carbapenemase producing E. coli.

All caecal samples were screened for CP and *mcr*(complex) with RT PCR.

Poultry (broiler) at slaughter

Caecal samples of Dutch reared animals were taken randomly from the selected herd by inspectors at the 15 selected slaughterhouses and send to WBVR for isolation of Campylobacter, indicator E. coli and for specific monitoring of ESBL, AmpC and carbapenemase producing E. coli.

All caecal samples were screened for CP and *mcr*(complex) with RT PCR.

Dairy cows at farm

Farm where sampling was performed were selected by a team of inspectors spread around the country. No further stratification or randomisation was done. All dairy farm in NL have an equal chance to be visited and sampled. All farm were only visited once.

Food samples from retail

No special randomisation procedures were applied. Teams of inspectors are spread over the country and the inspectors themselves are responsible for selecting the outlets to do sampling of different types of meat or other food products. Retail shops are visited once a year at maximum for this “random” sampling in the different food projects.

4. Analytical method used for detection and confirmation[(b)]

WBVR

Isolation of *Campylobacter* – CCDA agar

Identification of *Campylobacter species* - MALDI

Isolation of E.coli - MacConkey agar

Isolation of ESBL, AmpC and carbapenemase producing *E. coli* from caecal samples - according to EURL-AR protocols for ESBL- or AmpC- or carbapenemase-producing *E. coli*

NVWA

Isolation of *Salmonella* – equivalent to ISO 6579-1

Serotyping of *Salmonella* – Check&Trace- (commercial system), if necessary serotyping by RIVM

Isolation of Campylobacter - equivalent to ISO 10272-2

Identification of Campylobacter species - MALDI

Isolation of *E.coli* - MacConkey broth and isolation on TBX agar

Isolation of *Enterococcus* – BPW followed by Azide Dextrose broth and isolation on Slanetz-Bartley agar

Identification of *Enterococcus* species - PCR

Isolation of ESBL, AmpC and carbapenemase producing *E. coli* from fresh meat - according to EURL-AR protocols for ESBL- or AmpC- or carbapenemase-producing *E. coli*

5. Laboratory methodology used for detection of antimicrobial resistance(C)

At WBVR and NVWA MBD panels with antimicrobials (TREK) are used compliant with EU/652/2013 for all species tested (TREK)

WBVR

Carbapenemase producing organisms - commercial RT-PCR (Check-Points, CarbaCheck MDR RT followed by selective plates (ChromID CARBA and ChromID OXA, Biomerieux, for Enterobacteriaceae) and on HIS plates with 0.125 mg/L ertapenem (for Shewanella spp) in case of positive screening.

Genes were identified with Sanger sequencing

Colistin resistance - samples were tested with conventional PCR for the presence of mcr-1 and mcr-2 according to EURL-AR protocols . followed by direct culturing of the original BPW broth on MacConkey agar with 2 mg/L colistin in case of positive screening.

NVWA

Frozen fish and shrimps originating from fish farms in South-East Asia was analysed for ESBL- or AmpC- or carbapenemase-producing organisms. Method used: BPW enrichment followed by isolation on 1) MacConkey with cefotaxime, 2) ChromID CARBA and 3) ChromID OXA-48.

6. Results of investigation

see https://www.wur.nl/upload_mm/6/5/b/8d0f6f3f-860a-44d3-ac05-115b2b1e64e8_Nethmap-Maran%202020.pdf

7. Additional information

All caecal en faecal samples examined at WBVR are screened for CP and *mcr*(complex) with RT PCR.

*** to be filled in per combination of bacterial species/matrix**

(a): Method of sampling (description of sampling technique: stage of sampling, type of sample, sampler), Frequency of sampling, Procedure of selection of isolates for susceptibility testing, Method used for collecting data.

(b): Analytical method used for detection and confirmation: according to the legislation, the protocols developed by the EURL-AR should be used and reported here. In the case of the voluntary specific monitoring on Carbapenemase-producers, the selective media used (commercial plates, 'in house' media) should be also reported here. In general, any variation with regard to the EURL-AR protocols should be stated here, number of isolates isolated per sample, in particular for *Campylobacter* spp..

(c): Antimicrobials included, Cut-off values