

Slovenia

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

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

IN 2016

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 Slovenia during the year 2016.

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

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

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

The information covered by this report is used in the annual European Union Summary Reports on zoonoses and antimicrobial resistance that are published each year by EFSA.

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

TEXTFORMS	3
1 ANIMAL POPULATIONS	3
1.1 Populations	3
1.1.1 Information on susceptible animal population	3
2 DISEASE STATUS	4
2.1 TUBERCULOSIS, MYCOBACTERIAL DISEASES	4
2.1.1 Mycobacterium in animals	4
2.1.1.1 Mycobacterium tuberculosis complex (MTC) in animal - Cattle (bovine animals) - animal sample	4
2.2 BRUCELLOSIS	6
2.2.1 Brucella in animals	6
2.2.1.1 B. abortus in animal - Cattle (bovine animals) - animal sample	6
2.2.1.2 B. melitensis in animal - Goats - animal sample	8
2.2.1.3 B. melitensis in animal - Sheep - animal sample	10
3 INFORMATION ON SPECIFIC ZOOSES AND ZOO NOTIC AGENTS	13
3.1 SALMONELLOSIS	13
3.1.1 Salmonella in foodstuffs	13
3.1.1.1 Salmonella in food - All foodstuffs - food sample - Surveillance - Official sampling - Objective sampling - n=1	13
3.1.1.2 Salmonella in food - Dairy products, unspecified - food sample - Official sampling - Objective sampling	14
3.1.1.3 Salmonella in food - Fishery products, unspecified - food sample - Official sampling - Objective sampling	16
3.1.1.4 Salmonella in food - Fruits and vegetables - food sample - Official sampling - Objective sampling	17
3.1.1.5 Salmonella in food - Meat from broilers (Gallus gallus) - fresh - chilled - food sample - Official sampling - Objective sampling	18
3.1.1.6 Salmonella in food - Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - chilled - food sample - Official sampling - Objective sampling	20
3.1.1.7 Salmonella in food - Meat, mixed meat - meat preparation - food sample - Official sampling - Objective sampling	21
3.1.1.8 Salmonella in food - Meat, mixed meat - meat products - food sample - Official sampling - Objective sampling	22
3.1.1.9 Salmonella in food - Meat, mixed meat - minced meat - food sample - Official sampling - Objective sampling	23
3.1.1.10 Salmonella in food - Other processed food products and prepared dishes - unspecified - food sample - Official sampling - Objective sampling	25
3.1.1.11 Salmonella in food - Seeds, dried - food sample - Official sampling - Objective sampling	26
3.1.1.12 Salmonella in food - Spices and herbs - food sample - Official sampling - Objective sampling	27
3.1.2 Salmonella in animals	29
3.1.2.1 Salmonella in animal - Gallus gallus (fowl) - broilers - environmental sample - boot swabs - Control and eradication programmes - Census	29
3.1.2.2 Salmonella in animal - Meat from pig - carcass - Slaughterhouse - food sample - carcass swabs - Control and eradication programmes - HACCP and own check	30
3.1.2.3 Salmonella in animal - Gallus gallus (fowl) - laying hens - environmental sample - boot swabs - Control and eradication programmes - Census	31
3.1.2.4 Salmonella in animal - Gallus gallus (fowl) - breeding flocks, unspecified - environmental sample - boot swabs - Control and eradication programmes - Census	35
3.1.2.5 Salmonella in Turkeys - fattening flocks - breeding flocks and meat production flocks	38
3.2 CAMPYLOBACTERIOSIS	40
3.2.1 Campylobacter in animals	40
3.2.1.1 Campylobacter in animal - Meat from broilers (Gallus gallus) - carcass - food sample	40
3.2.1.2 Campylobacter in animal - Vegetables - pre-cut - ready-to-eat - food sample	41
3.3 LISTERIOSIS	43
3.3.1 Listeria in foodstuffs	43
3.3.1.1 L. monocytogenes in food - Foodstuffs intended for special nutritional uses - food sample - Surveillance - Official sampling - Objective sampling - n=1	43
3.3.1.2 L. monocytogenes in food - Dairy products, unspecified - food sample - Official sampling - Objective sampling	44
3.3.1.3 L. monocytogenes in food - Fishery products, unspecified - food sample - Official sampling - Objective sampling	45
3.3.1.4 L. monocytogenes in food - Fruits and vegetables - food sample - Official sampling - Objective sampling	47
3.3.1.5 L. monocytogenes in food - Meat, mixed meat - meat products - food sample - Official sampling - Objective sampling	48
3.3.1.6 L. monocytogenes in food - Milk from other animal species or unspecified - raw milk - food sample - Official sampling - Objective sampling	49
3.3.1.7 L. monocytogenes in food - Other processed food products and prepared dishes - unspecified - food sample - Official sampling - Objective sampling	51
3.3.2 Listeria in animals	52
3.3.2.1 L. monocytogenes in animal - Cattle (bovine animals) - animal sample	52
3.3.2.2 L. monocytogenes in animal - Sheep and goats - animal sample	54
3.4 TRICHINELLOSIS	55
3.4.1 Trichinella in animals	55
3.4.1.1 Trichinella in animal - Solipeds, domestic - Slaughterhouse - animal sample - organ/tissue - Surveillance - Official sampling - Census	55
3.4.1.2 Trichinella in animal - Wild animals - Game handling establishment - animal sample - organ/tissue - Surveillance - Official sampling - Census	57
3.4.1.3 Trichinella in animal - Pigs - fattening pigs - Slaughterhouse - animal sample - organ/tissue - Surveillance - Official sampling - Census	58
3.5 ECHINOCOCCOSIS	60
3.5.1 Echinococcus in animals	60
3.5.1.1 Echinococcus in animal - Cattle (bovine animals) - Slaughterhouse - animal sample - Surveillance - Official sampling - Suspect sampling	60
3.5.1.2 Echinococcus in animal - Pigs - fattening pigs - Slaughterhouse - animal sample - Surveillance - Official sampling - Suspect sampling	61
3.5.1.3 Echinococcus in animal - Sheep and goats - Slaughterhouse - animal sample - Surveillance - Official sampling - Suspect sampling	62
3.6 RABIES	64
3.6.1 Lyssavirus (rabies) in animals	64
3.6.1.1 Lyssavirus (rabies) in animal - Foxes - animal sample	64
3.7 Q-FEVER	66
3.7.1 Coxiella (Q-fever) in animals	66
3.7.1.1 C. burnetii in animal - Cattle (bovine animals) - animal sample	66
3.8 CYSTICERCOSES, TAENIOSIS	67
3.8.1 Cysticerci in animals	67
3.8.1.1 Cysticerci in animal - Cattle (bovine animals) - Slaughterhouse - animal sample - Surveillance - Suspect sampling	67
3.8.1.2 Cysticerci in animal - Pigs - fattening pigs - Slaughterhouse - animal sample - Surveillance - Suspect sampling	69
3.9 VTEC	70
3.9.1 Escherichia coli in foodstuffs	70
3.9.1.1 Verotoxigenic E. coli (VTEC) in food - Meat, mixed meat - meat preparation - food sample - Official sampling - Objective sampling	70
3.9.1.2 Verotoxigenic E. coli (VTEC) in food - Meat, mixed meat - meat products - food sample - Official sampling - Objective sampling	71
3.9.1.3 Verotoxigenic E. coli (VTEC) in food - Meat, mixed meat - minced meat - intended to be eaten cooked - chilled - food sample - Official sampling - Objective sampling	72
3.9.1.4 Verotoxigenic E. coli (VTEC) in food - Milk from other animal species or unspecified - raw milk - food sample - Official sampling - Objective sampling	74
3.9.1.5 Verotoxigenic E. coli (VTEC) in food - Seeds, dried - food sample - Official sampling - Objective sampling	75
3.9.1.6 Verotoxigenic E. coli (VTEC) in food - Vegetables - food sample - Official sampling - Objective sampling	76
4 ANTIMICROBIAL RESISTANCE INFORMATION ON SPECIFIC ZOOSES AND ZOO NOTIC AGENTS	78
4.1 SALMONELLOSIS	78
4.1.1 Salmonella in foodstuffs	78
4.1.1.1 Antimicrobial resistance in Salmonella Meat from broilers (Gallus gallus)	78
4.1.2 Salmonella in animals	79
4.1.2.1 Antimicrobial resistance in Salmonella Poultry, unspecified	79
4.2 CAMPYLOBACTERIOSIS	81
4.2.1 Campylobacter in animals	81
4.2.1.1 Antimicrobial resistance in Campylobacter Gallus gallus (fowl)	81
4.3 ESCHERICHIA COLI, NON-PATHOGENIC	82
4.3.1 Escherichia coli, non-pathogenic in foodstuffs	83
4.3.1.1 Antimicrobial resistance in E.coli, non-pathogenic, unspecified Meat from broilers (Gallus gallus)	83
4.3.2 Escherichia coli, non-pathogenic in animals	84
4.3.2.1 Antimicrobial resistance in E.coli, non-pathogenic, unspecified Gallus gallus (fowl)	84
5 INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS	87
5.1 CRONOBACTER	87
5.1.1 Cronobacter in foodstuffs	87
5.1.1.1 Cronobacter in food - Foodstuffs intended for special nutritional uses - food sample - Surveillance - Official sampling - Objective sampling - n=1	87
5.2 HISTAMINE	88
5.2.1 Histamine in foodstuffs	88
5.2.1.1 Histamine in food - Fishery products, unspecified - food sample - Official sampling - Objective sampling	88
5.3 STAPHYLOCOCCAL ENTEROTOXINS	90
5.3.1 Staphylococcal enterotoxins in foodstuffs	90
5.3.1.1 Staphylococcal enterotoxins in food - Cheeses, made from unspecified milk or other animal milk - food sample - Official sampling - Objective sampling	90
6 FOODBORNE OUTBREAKS	92
6.1 Outbreaks	92
6.1.1 Foodborne outbreaks	92

ANIMAL POPULATION TABLES	95
DISEASE STATUS TABLES FOR BRUCELLA	96
Bovine brucellosis in countries and regions that do not receive Community co-financing for eradication programme	96
Ovine or Caprine brucellosis in countries and regions that do not receive Community co-financing for eradication programme	97
DISEASE STATUS TABLES FOR MYCOBACTERIUM	98
Bovine tuberculosis in countries and regions that do not receive Community co-financing for eradication programme	98
PREVALENCE TABLES	99
CALICIVIRUS	99
food	99
CAMPYLOBACTER	100
food	100
CLOSTRIDIUM	101
food	101
COXIELLA	102
animal	102
CRONOBACTER	103
food	103
CYSTICERCUS	104
animal	104
ECHINOCOCCUS	105
animal	105
ESCHERICHIA COLI	106
food	106
FLAVIVIRUS	107
food	107
HEPATITIS VIRUS	108
food	108
HISTAMINE	109
food	109
LISTERIA	110
animal	110
food	111
LYSSAVIRUS	113
animal	113
SALMONELLA	114
animal	114
food	115
feed	118
STAPHYLOCOCCAL ENTEROTOXINS	119
food	119
TRICHINELLA	120
animal	120
FOODBORNE OUTBREAKS TABLES	121
AMR TABLES FOR CAMPYLOBACTER	124
Campylobacter coli	124
Gallus gallus (fowl) - broilers - Slaughterhouse - Monitoring - Official sampling - AMR MON	124
N_A	124
Campylobacter jejuni	125
Gallus gallus (fowl) - broilers - Slaughterhouse - Monitoring - Official sampling - AMR MON	125
N_A	125
AMR TABLES FOR SALMONELLA	126
Salmonella 6,7:r:-	126
Gallus gallus (fowl) - broilers - Farm - Control and eradication programmes - Industry sampling - AMR MON	126
N_A	126
Salmonella Enteritidis	127
Gallus gallus (fowl) - laying hens - Farm - Control and eradication programmes - Industry sampling - AMR MON	127
N_A	127
Gallus gallus (fowl) - laying hens - Farm - Control and eradication programmes - Official sampling - AMR MON	128
N_A	128
Salmonella I, group O:30	129
Gallus gallus (fowl) - laying hens - Farm - Control and eradication programmes - Industry sampling - AMR MON	129
N_A	129
Salmonella Infantis	130
Meat from broilers (Gallus gallus) - carcass - Slaughterhouse - Monitoring - Official sampling - AMR MON	130
N_A	130
Meat from broilers (Gallus gallus) - carcass - Slaughterhouse - Monitoring - HACCP and own check - AMR MON	131
N_A	131
Gallus gallus (fowl) - broilers - Farm - Control and eradication programmes - Industry sampling - AMR MON	132
N_A	132
Gallus gallus (fowl) - broilers - Farm - Control and eradication programmes - Official sampling - AMR MON	133
N_A	133
Gallus gallus (fowl) - laying hens - Farm - Control and eradication programmes - Industry sampling - AMR MON	134
N_A	134
Salmonella Montevideo	135
Gallus gallus (fowl) - broilers - Farm - Control and eradication programmes - Industry sampling - AMR MON	135
N_A	135
Salmonella Ohio	136
Gallus gallus (fowl) - broilers - Farm - Control and eradication programmes - Industry sampling - AMR MON	136
N_A	136
Gallus gallus (fowl) - laying hens - Farm - Control and eradication programmes - Industry sampling - AMR MON	137
N_A	137
Turkeys - fattening flocks - Farm - Control and eradication programmes - Industry sampling - AMR MON	138
N_A	138
Gallus gallus (fowl) - laying hens - Farm - Control and eradication programmes - Industry sampling - AMR MON	139
N_A	139
Salmonella Saintpaul	140
Gallus gallus (fowl) - broilers - Farm - Control and eradication programmes - Industry sampling - AMR MON	140
N_A	140
Gallus gallus (fowl) - laying hens - Farm - Control and eradication programmes - Industry sampling - AMR MON	141
N_A	141
AMR TABLES FOR ESCHERICHIA COLI	142
Escherichia coli, non-pathogenic, unspecified	142
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON pni2	142
N_A	142
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON	143
N_A	143
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON pni2	144
N_A	144
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON	146
N_A	146
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON pni2	148
N_A	148
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON	149
N_A	149
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON pni2	150
N_A	150
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON	151
N_A	151
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON pni2	152

N_A	152
Meat from broilers (Gallus gallus) - fresh - Retail - Monitoring - Official sampling - ESBL MON	153
N_A	153
Gallus gallus (fowl) - broilers - Slaughterhouse - Monitoring - Official sampling - AMR MON pml2	154
Out of 149 E.coli isolates obtained, 85 isolates were selected for AMR Pnl 1 testing, and 6 isolates were further tested for AMR Pnl 2. For one isolate (Ec76T516) difference in the resistance for cephalosporines was obser	154
Gallus gallus (fowl) - broilers - Slaughterhouse - Monitoring - Official sampling - AMR MON	156
N_A	156
Gallus gallus (fowl) - broilers - Slaughterhouse - Monitoring - Official sampling - ESBL MON pml2	158
N_A	158
Gallus gallus (fowl) - broilers - Slaughterhouse - Monitoring - Official sampling - ESBL MON	160
N_A	160
OTHER AMR TABLES	162
ESBL	163
LATEST TRANSMISSIONS	165

1 ANIMAL POPULATIONS

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

1.1 Populations

1.1.1 Information on susceptible animal population

Sources of information

UVHVR/AFSVSP (Uprava za varno hrano, veterinarsvo in vartsvo rastlin/ The Administration of the Republic of Slovenia for food safety, veterinary and plant protection), within Ministry of agriculture, forestry and food.

Dates the figures relate to and the content of the figures

Bovine animals (No. of holdings, No. of live animals) figures on 31.12.2016, pigs, sheeps, goats (No. of holdings, No. of live animals) figures on 01.02.2016, solipeds (horses) (No. of holdings, No. of live animals) figures on 20.03.2017 . Regarding number of animals (poultry) data from 01.01.2016 till 31.12.2016 were reported, but only holdings and animals, which were included into the Salmonella spp. control programme in 2016. Bovine animals, spigs, sheeps, goats, poultry, solipeds (No. of slaughtered animals) figures on 31.12.2016 (whole year). Wild animals - No. from 01.01.2016 til 31.12.2016.

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

Holdings with food producing animals are distributed throughout Slovenia.

2 DISEASE STATUS

2.1 TUBERCULOSIS, MYCOBACTERIAL DISEASES

2.1.1 Mycobacterium in animals

2.1.1.1 Mycobacterium tuberculosis complex (MTC) in animal - Cattle (bovine animals) - animal sample

Status as officially free of bovine tuberculosis during the reporting year

The entire country free

Republic of Slovenia is a country officially free of bovine tuberculosis. The status was granted in 2009 (Commission Decision 2009/342/EC).

Monitoring system

Sampling strategy

Maintenance of the OTF status in 2016: National control program, prepared by the UVHVVR, was harmonised with Community legislation on TBC. TB testing was performed in all bovine animals older than 6 weeks in 25% of all herds (intradermal TB testing in accordance with Council Directive 64/432/EEC and national Rules on animal diseases) and in case of pneumonia (bovine animals older than 30 months), samples of lymph nodes and lungs with pathological changes were sent to bacteriological analyse to exclude or confirm M.bovis. Detailed data about the implementation of national control program are set in the reporting Table.

Frequency of the sampling

Intradermal tuberculin test: interval between routine tuberculin test: three years. Bacteriological examination: lungs of cattle older than 30 month in all cases in which the official veterinarian found the signs of pneumonia at a post-mortem examination.

Type of specimen taken

Intradermal tuberculin test; pathological changes of lungs (in case of pneumonia) and its lymph nodes, or other organs (viscera) with typical pathological changes together with their lymph nodes.

Methods of sampling (description of sampling techniques)

Intradermal tuberculin test and bacteriological testing of the samples in order to determine or exclude agent of tuberculosis are carried out in accordance with Annex B of Directive 64/432.

Case definition

Bovine TB is confirmed, if M.bovis is isolated.

Diagnostic/analytical methods used

Methods according to the OIE diagnostic manual, the latest online edition.

Vaccination policy

Vaccination is not allowed.

Other preventive measures than vaccination in place

Persons who in the course of activities coming into direct contact with animals should have basic knowledge of animal diseases, their prevention and transmission to humans and knowledge regarding regulations on the protection of animals against diseases. The operator must ensure hygiene in primary production, GAP, GHP and record keeping. Moving bovine animals and food derived from these animals is possible only if the cattle originate from a herd which is officially free of TBC. Suspicious and infected holdings are under official veterinary supervision. If the status of the herd is temporarily suspended, the marketing of products or products from these animals is possible in accordance with Regulation 854/2004 and Rules on measures for the detection, prevention and eradication of tuberculosis.

Control program/mechanisms

The control program/strategies in place

National control program is carried out in accordance with national Rules and is harmonised with Community legislation on TBC. Other control mechanisms: Registration or approval of holdings, food business operators, transporters, collection centres and dealers, which are subject to veterinary controls; Identification and registration of animals; Regular official veterinary inspections at the holdings; Movements of animals accompanied by the prescribed documents; Veterinary organisation should immediately inform UVHVVR about the suspicion; TBC is a compulsory notifiable disease; Measures at suspected and confirmed presence of TBC; Identifying, granting, revocation and withdrawal of the health status of herds in accordance with the Rules on animal diseases.

Measures in case of the positive findings or single cases

Measures at suspected presence of TB: At the suspect holding, official control shall be introduced, epizootiological investigation shall be carried out as well as the necessary laboratory tests and the status of the herd shall be temporarily withdrawn. Furthermore, the following measures shall be ordered: prohibition of movement from and to the holding with the exception of the movement to the slaughterhouse where animals are to be slaughtered under official supervision; all the animals which have reacted positively to the intradermal tuberculin test must be removed for slaughter under official supervision; isolation of animals suspected to have TBC; subject to preliminary heat treatment, the milk of such animals may be used as food for other animals at the holding; the milk of other animals may be used as food for humans, provided that it is at least pasteurised in the dairy under official supervision; setting up of disinfection barriers at the exit from and entry to the holding and into individual facilities where cattle is kept. Measures at confirmed presence of TBC: the status of officially TBC-free herd is temporarily suspended; culling of all suspicious or positive animals; slaughter within 30 days of positive results; derogation for animals which did not react negatively to tests and which could be infected, as estimated on the basis of the epizootiological data, for the period not more than 3 months; prohibited marketing of the products of cattle origin from the infected holding; prohibited removal of feed and manure; the manure removed from all the facilities in which cattle is kept must be stored at a location to which the susceptible animals may not access; disinfection of the solid and liquid manure, storage of manure for a period of at least three months. Disinfection shall not be necessary if manure is covered with a layer of uninfected manure or soil; cleaning and disinfecting; intradermal tuberculin test in all cattle at the holding in accordance with the rules regulating contagious animal diseases; other recovery measures. In animals that have shown positive reaction to intradermal tuberculin test, or when the disease is suspected on the basis of clinical signs or during the pathoanatomical examination, the decision if meat of animal is fit for human consumption shall be assessed in accordance with the provisions of hygiene regulations. The officially tuberculosis-free status of a herd shall not be restored until the cleaning and disinfection of the premises and equipment has taken place, and until all the remaining animals over six weeks of age have reacted negatively to at least two consecutive intradermal tuberculin tests the first test shall be carried out at least 60 days, and the second test at least 4 months up to a maximum of 12 months, upon culling the last positive reactor. At slaughterhouse: When animals have reacted positively or inconclusively to tuberculin, or there are other grounds for suspecting infection, they are to be slaughtered separately from other animals, taking precautions to avoid the risk of contamination of other carcasses, the slaughter line and staff present in the slaughterhouse. All meat from animals in which post-mortem inspection has revealed localised tuberculous lesions in a number of organs or a number of areas of the carcass is to be declared unfit for human consumption. However, when a tuberculous lesion has been found in the lymph nodes of only one organ or part of the carcass, only the affected organ or part of the carcass and the associated lymph nodes need be declared unfit for human consumption.

Notification system in place

Notification system is in place. According to Rules on animal disease the notification of disease is mandatory. In case of a suspected presence of disease, all the necessary steps shall immediately be taken in order to confirm the presence of disease, or to rule out the suspicion thereof. Natural and legal persons shall immediately notify UVHVVR/AFSVSPP or a veterinary organisation in case they establish a threat to animal health or as a consequence thereof to human health. When the presence of a disease is suspected the veterinary organisation shall immediately inform the UVHVVR/AFSVSPP of the suspected disease. Designated laboratory shall immediately inform UVHVVR/AFSVSPP on the results of diagnostic test. In case of a primary outbreak of disease in the country, the designated laboratory shall immediately communicate the results of diagnostic test to the UVHVVR/AFSVSPP. UVHVVR/AFSVSPP officially confirms the presence of the disease. In the case of a zoonosis, the UVHVVR/AFSVSPP shall notify of the suspected presence of disease also the competent public health services. UVHVVR/AFSVSPP shall also notify the disease to the Commission and other member states through ADNS system.

Results of the investigation

Results of the investigation are part of the reporting table.

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

In 2016, Republic of Slovenia maintained a status of a country officially free of bovine tuberculosis.

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

In Slovenia, taking into account the results of testing, the possibility of transmission of the disease from animals to humans is negligible.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

2.2 BRUCELLOSIS

2.2.1 Brucella in animals

2.2.1.1 B. abortus in animal - Cattle (bovine animals) - animal sample

Status as officially free of bovine brucellosis during the reporting year

The entire country free

Status of a country officially free of bovine brucellosis during the reporting year 2016. Health status was granted in 2007 (Commission Decision 2007/399/EC).

Monitoring system

Sampling strategy

Maintenance of the OBF status: All bovine animals older than 24 months in 20% of all herds were tested in 2016, with the exception of male animals intended solely for slaughter (in accordance with the provisions of Council Directive No. 64/432). Report cases of bovine abortions, which are suspected to be due to brucellosis, send the aborted material for investigation on brucellosis at NVI (National Veterinary Institute) and inform UVHVVR/AFSVSPP about the results.

Frequency of the sampling

Sampling was performed during the year. Programme for sampling was prepared by UVHVVR/AFSVSPP, main office. Samples were taken by veterinarians from veterinary organizations carrying out public veterinary service on the basis of a concession. Analyses were performed by NVI (National Veterinary Institute).

Type of specimen taken

Samples are taken by veterinarians of the veterinary organisations performing public veterinary service on the basis of concession, according to the National control programme, prepared by the UVHVVR/AFSVSPP, which was harmonised with Community legislation on Brucellosis. Type of samples: blood samples from individual animals, aborted material (regular monitoring and additional diagnostic tests in case of suspicion of the disease) and milk samples (additional diagnostic testing in case of suspicion of the disease).

Methods of sampling (description of sampling techniques)

Blood samples were taken aseptically by venipuncture in sterile tubes. To obtain serum, tubes were allowed to stand at room temperature. After clotting, tubes were placed in a refrigerator at 4°C. Transport in a cool environment (cooler) to the laboratory within 48 hours after collection.

Case definition

The disease is confirmed if the agent (*B.abortus*) is isolated or the brucellosis skin test is positive or clinical signs have been found and the results of laboratory tests are positive. UVHVVR/AFSVSPP officially confirm the presence of disease.

Diagnostic/analytical methods used

Serological methods: Rose Bengal (RB) - screening test (OIE diagnostic manual, the latest online edition); complement fixation test (CFT) - confirmatory test (OIE Diagnostic Manual, the last Web edition); ELISA. Brucellosis skin test, bacterial method: Identification of the agent (OIE diagnostic manual, the latest online edition).

Vaccination policy

Vaccination is not allowed.

Other preventive measures than vaccination in place

Persons who in the course of activities come into direct contact with animals should have a basic knowledge of animal diseases, their prevention and transmission to humans and on the regulations on protection against animal diseases. The food business operator must ensure hygiene in primary production - GAP, GHP and record keeping. Moving bovine animals and products derived from these animals is possible only if the bovine animals originate from a herd officially- free of brucellosis. Suspicious and infected holdings are under official veterinary control. If the status of the herd shall be suspended, the marketing of products, or products from these animals is possible in accordance with the Regulation (EC) No. 854/2004 and the rules which it lays down measures for the detection, prevention and eradication of brucellosis in cattle. Good communication and cooperation between veterinary and public health services in case of zoonosis occurrence in animals or humans is very important.

Control program/mechanisms

The control program/strategies in place

Registration and approval of holdings, food business operators, carriers, assembly centers and traders, which are under official control; Identification and registration of animals; Regular official veterinary checks on holdings; Movements of animals to be accompanied by the prescribed documents; Veterinary referral of sick animals and animals from holdings of unproven or suspicious epidemiological situation; Veterinary organisation, that puts suspicion, must report suspicions of brucellosis immediately inform the main office UVHVVR/AFSVSPP; Compulsory notification of abortions suspected of being due to brucellosis; Measures in case of suspicion and confirmation of the disease; Identifying, granting, revocation and withdrawal of the health status of herds in accordance with the rules governing animal diseases.

Measures in case of the positive findings or single cases

The disease is suspected if an inconclusive or positive reaction with serological confirmatory test was identified in the framework of regular monitoring. The confirmatory serological test and the assessment of the results are carried out. Or one or more clinical signs appear: abortion, late placenta, infection of testicles and epididymis, arthritis, which could be in causal relationship with other clinical signs. If the animal is suspected of being infected, the status of the herd shall be suspended. If the disease is confirmed in a herd, the status of the herd will be withdrawn. Herd health status will be restored if all the animals that were in the herd at the time of the outbreak will be eliminated or when all the animals in the herd were investigated and two consecutive tests carried out in 60-day intervals in all animals older than 12 months, will be negative, and the first test should be performed at least 30 days after the removal of the last infected animals. In the case of pregnant animals, the final check must be carried out 21 days after calving the last of pregnant cows. At the suspected holding official controls are introduced and status of a herd officially brucellosis-free is suspended. In addition, the official veterinarian order the following measures: prohibiting the marketing of ruminants, pigs and horses from the holding, with the exception of transport to the slaughterhouse for slaughter under official control; isolation of animals suspected of having brucellosis; milk of these animals may be, after a preliminary heat treatment used as feed for other animals on the holding; milk of other animals may be used for human consumption if it was heat-treated at least at a temperature of pasteurization and under official control; epidemiological investigation; a disinfection barriers at the exit and entrance on the holding and the individual facilities where there is cattle. Diagnostic tests are performed: a) in the case of animals which did not react negatively to the confirmation test, carried out in the framework of the regular monitoring of these animals, the investigation is carried out in accordance with the rules governing animal diseases, b) in the case of animals which are based on clinical signs or epidemiological data suspected on brucellosis, samples of milk are taken for bacteriological examination and a blood sample from all animals over the age of 12 months. After the confirmation of the disease the official veterinarian order the following measures: withdrawal of officially brucellosis-free status; census of all animals in which the disease has been found and which are considered to be infected on the basis of epidemiological data; isolation and slaughter of all positive animals within 30 days of the results; a ban on trade with products; harmless destruction of dead and stillborn calves, straw, bedding and any other material, equipment and materials which come into contact with infected animals and aborted fetuses, placenta and amnion; a ban on removing of feed and manure; disinfecting or overlap manure with a layer of uninfected manure or soil; cleaning and disinfecting; other necessary measures. The measures on the infected holding shall remain in force until the disease is officially ruled out and status of officially brucellosis-free herd is regained. Measures at the slaughterhouse: If animals did not react negatively on a brucellosis test or there are other grounds for suspecting infection, they are to be slaughtered separately from other animals, taking precautions to avoid contamination of other carcasses, the slaughter line and staff present in the slaughterhouse. Meat from animals in which post mortem inspection has revealed lesions indicating acute infection with brucellosis is to be declared unfit for human consumption. In the case of animals reacting positively or inconclusively to a brucellosis test, the udder, genital tract and blood must be declared unfit for human consumption, even if it has not detected any such lesions.

Notification system in place

According to Rules on animal diseases the notification of disease is mandatory. In the case of a suspected presence of disease, all the necessary steps shall immediately be taken in order to confirm the presence of disease, or to rule out the suspicion thereof. Natural and legal persons shall immediately notify UVHVVR/AFSVSPP or a veterinary organisation in case they establish a threat to animal health or as a consequence thereof to human health. When the presence of a disease is suspected the veterinary organisation shall immediately inform the UVHVVR/AFSVSPP of the suspected disease. Designated laboratory shall immediately inform UVHVVR/AFSVSPP on the results of diagnostic test. In case of a primary outbreak of disease in the country, the designated laboratory shall immediately communicate the results of diagnostic test to the UVHVVR/AFSVSPP. UVHVVR/AFSVSPP officially confirms the presence of the disease. In the case of a zoonosis, the UVHVVR/AFSVSPP shall notify of the suspected presence of disease also the competent public health services. UVHVVR/AFSVSPP shall also notify the disease to the Commission and other member states through ADNS system.

Results of the investigation

The results of the investigation are part of the reporting table.

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

At the moment and also in 2016, Slovenia granted status as a country of officially free of bovine brucellosis. In Slovenia, taking into account the results of testing, the possibility of transmission of the disease to humans is negligible.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

2.2.1.2 B. melitensis in animal - Goats - animal sample

Status as officially free of caprine brucellosis during the reporting year

The entire country free

Slovenia has a status of a country free of *B. melitensis* during the reporting year 2016. Status was granted in 2005 (Commission Decision 2005/179/EC).

Monitoring system

Sampling strategy

Maintenance of the free status: according to national monitoring plan, 5% of caprine/ovine animals older than 6 months had to be tested (serological testing of blood) in 2016.

Frequency of the sampling

Sampling was performed during the year. Programme for sampling was prepared by UVHVVR/AFSVSPP, main office. Samples were taken by veterinarians from veterinary organizations carrying out public veterinary service on the basis of a concession. Analyses were performed by NVI (National Veterinary Institute).

Type of specimen taken

Blood samples from individual animals (regular monitoring and additional diagnostic testing in case of the suspected disease); milk samples (additional diagnostic testing in case of suspected disease). Samples are taken by veterinarians of the veterinary organisations performing public veterinary service on the basis of concession, according to the National control programme, prepared by the UVHVVR/AFSVSPP, was harmonised with Community legislation on Brucellosis.

Methods of sampling (description of sampling techniques)

Blood samples were taken aseptically by venipuncture in sterile tubes. To obtain serum, tubes were allowed to stand at room temperature. After clotting, tubes were placed in a refrigerator at 4°C. Transport in a cool environment (cooler) to the laboratory within 48 hours after collection.

Case definition

The presence of the disease is officially confirmed or excluded by the UVHVVR/AFSVSPP based on clinical signs and the results of investigations. In the event of an epidemic, the UVHVVR/AFSVSPP officially confirms the presence of the disease based on clinical signs and/or the results of epizootiological investigation.

Diagnostic/analytical methods used

Serological methods: Rose Bengal (RB) - screening (OIE Manual last online edition); Complement fixation test (CFT) - confirmatory test (OIE Manual, Web edition), ELISA. Bacterial method: Identification of the agent (OIE Manual, the latest online edition).

Vaccination policy

Vaccination is not allowed.

Other preventive measures than vaccination in place

Persons who in the course of activities come into direct contact with animals should have a basic knowledge of animal diseases, their prevention and transmission to humans and on the regulations on protection against animal diseases. The food business operators must ensure hygiene in primary production - GAP, GHP and record keeping. Moving goats and products derived from these animals is possible, only if the goat originate from a herd officially brucellosis-free. Suspicious and infected holdings are under official veterinary control.

Control program/mechanisms

The control program/strategies in place

Registration and approval of holdings, food business operators, carriers, assembly centers and traders, which are under official control; Identification and registration of animals; Regular official veterinary checks on holdings; Movements of animals to be accompanied by the prescribed documents; Veterinary referral of sick animals and animals from farms of unproven or suspicious epidemiological situation; Veterinary organisation, that puts suspicion, must report suspicions of brucellosis (*B.melitensis*) must immediately inform the main office UVHVVR/AFSVSPP; Measures in case of suspicion and confirmation of the disease; Identifying, granting, revocation and withdrawal of the health status of herds in accordance with the rules governing animal diseases; Communication and cooperation between veterinary and public health services in case of zoonosis occurrence in animals or humans.

Measures in case of the positive findings or single cases

When caprine brucellosis (*B. melitensis*) is suspected, veterinary organisation with concession shall immediately confirm or rule out the suspicion, and immediately notify UVHVVR/AFSVSPP and NVI. Measures to be implemented at suspect holding include: census of all susceptible animals on the holding, affected or suspected of being infected and dead animals (the census is regularly updated, to include newborn animals and animals which die during the period of suspicion); laboratory examination of carcasses and blood samples; epidemiological investigation; harmless disposal of dead animals; quarantine of the infected holding; isolation of animals susceptible for the disease; ban on movement of susceptible animals inside the holding, taking into account possible vectors of the disease; ban on movement to and from the holding; disinfection barriers at the entrance/exit of the holding and the individual buildings in the holding. Once brucellosis is officially confirmed the following measures are applied (beside the above mentioned): ban on trade with animals, animal products, by-products, waste, feeding stuff and all other stuff by which the disease can be transmitted; slaughter of infected animals; harmless disposal of carcasses of dead animals, aborted fetuses, placentas and ovarial fluids; harmless disposal of waste, manure, litter, by which the disease can be transmitted; testing of all susceptible animals on the holding; ban on use of milk from the infected holding; ban on use of animals from the infected holding in breeding purposes; clinical inspection of all susceptible animals on the holding; disinfection, disinfestation and deratisation (hereinafter DDD). Disease free status of the infected holding is suspended and is restored when all infected or susceptible animals are slaughtered and the results of the two tests at an interval of at least three months or more, of all animals on the holding over six months old, are negative. If the status of the herd is suspended, the marketing of products, or products from these animals is possible in accordance with Regulation 854/2004 and regulation, which sets out measures for the detection, prevention and eradication of brucellosis.

Measures at the slaughterhouse: If animals did not react negatively on a brucellosis test or there are other grounds for suspecting infection, they are to be slaughtered separately from other animals, taking precautions to avoid contamination of other carcasses, the slaughter line and staff present in the slaughterhouse. Meat from animals in which post mortem inspection has revealed lesions indicating acute infection with brucellosis is to be declared unfit for human consumption. In the case of animals reacting positively or inconclusively to a brucellosis test, the udder, genital tract and blood must be declared unfit for human consumption, even if it has not detected any such lesions.

Notification system in place

According to Rules on animal diseases the notification of disease is mandatory. In the case of a suspected presence of disease, all the necessary steps shall immediately be taken in order to confirm the presence of disease, or to rule out the suspicion thereof. Natural and legal persons shall immediately notify UVHVVR/AFSVSPP or a veterinary organisation in case they establish a threat to animal health or as a consequence thereof to human health. When the presence of a disease is suspected the veterinary organisation shall immediately inform the UVHVVR/AFSVSPP of the suspected disease. Designated laboratory shall immediately inform UVHVVR/AFSVSPP on the results of diagnostic test. In case of a primary outbreak of disease in the country, the designated laboratory shall immediately communicate the results of diagnostic test to the UVHVVR/AFSVSPP. UVHVVR/AFSVSPP officially confirms the presence of the disease. In the case of a zoonosis, the UVHVVR/AFSVSPP shall notify of the suspected presence of disease also the competent public health services. UVHVVR/AFSVSPP shall also notify the disease to the Commission and other member states through ADNS system.

Results of the investigation

The results of the investigation are part of the reporting table.

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

No positive case has been found since 1951. In Slovenia, taking into account the results of testing, the possibility of transmission of the disease to humans is negligible.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

2.2.1.3 B. melitensis in animal - Sheep - animal sample

Status as officially free of caprine brucellosis during the reporting year

The entire country free

Slovenia has a status of a country free of *B. melitensis* during the reporting year 2016. Status was granted in 2005 (Commission Decision 2005/179/EC).

Monitoring system

Sampling strategy

Maintenance of the free status: according to national monitoring plan, 5% of ovine/caprine animals older than 6 months had to be tested (serological testing of blood) in 2016.

Frequency of the sampling

Sampling was performed during the year. Programme for sampling was prepared by UVHVVR/AFSVSPP, main office. Samples were taken by veterinarians from veterinary organizations carrying out public veterinary service on the basis of a concession. Analyses were performed by NVI (National Veterinary Institute).

Type of specimen taken

Blood samples from individual animals (regular monitoring and additional diagnostic testing in case of the suspected disease); milk samples (additional diagnostic testing in case of suspected disease). Samples are taken by veterinarians of the veterinary organisations performing public veterinary service on the basis of concession, according to the National control programme, prepared by the UVHVVR/AFSVSPP, was harmonised with Community legislation on Brucellosis.

Methods of sampling (description of sampling techniques)

Blood samples were taken aseptically by venipuncture in sterile tubes. To obtain serum, tubes were allowed to stand at room temperature. After clotting, tubes were placed in a refrigerator at 4°C. Transport in a cool environment (cooler) to the laboratory within 48 hours after collection.

Case definition

The presence of the disease is officially confirmed or excluded by the UVHVVR/AFSVSPP based on clinical signs and the results of epizootiological investigations. In the event of an epidemic, the UVHVVR/AFSVSPP officially confirms the presence of the disease based on clinical signs and/or the results of epizootiological investigation.

Diagnostic/analytical methods used

Serological methods: Rose Bengal (RB) - screening (OIE Manual last online edition); Complement fixation test (CFT) - confirmatory test (OIE Manual, Web edition); ELISA. Bacterial method: Identification of the agent (OIE Manual, the latest online edition).

Vaccination policy

Vaccination is not allowed.

Other preventive measures than vaccination in place

Persons who in the course of activities come into direct contact with animals should have a basic knowledge of animal diseases, their prevention and transmission to humans and on the regulations on protection against animal diseases. The food business operators must ensure hygiene in primary production; GAP, GHP and record keeping. Moving sheep and products derived from these animals is possible, only if the sheep originate from a herd officially brucellosis-free. Suspicious and infected holdings are under official veterinary control.

Control program/mechanisms

The control program/strategies in place

Registration and approval of holdings, food business operators, carriers, assembly centers and traders, which are under official control; Identification and registration of animals; Regular official veterinary checks on holdings; Movements of animals to be accompanied by the prescribed documents; Veterinary referral of sick animals and animals from farms of unproven or suspicious epidemiological situation; Veterinary organisation, that puts suspicion, must report suspicions of brucellosis (*B.melitensis*) must immediately inform the main office UVHVVR/AFSVSPP; Measures in case of suspicion and confirmation of the disease; Identifying, granting, revocation and withdrawal of the health status of herds in accordance with the rules governing animal diseases; Communication and cooperation between veterinary and public health services in case of zoonosis occurrence in animals or humans.

Measures in case of the positive findings or single cases

When ovine brucellosis (*B. melitensis*) is suspected, veterinary organisation with concession shall immediately confirm or rule out the suspicion, and immediately notify UVHVVR/AFSVSPP and NVI. Measures to be implemented at suspect holding include: census of all susceptible animals on the holding, affected or suspected of being infected and dead animals (the census is regularly updated, to include newborn animals and animals which die during the period of suspicion); laboratory examination of carcasses and blood samples; epidemiological investigation; harmless disposal of dead animals; quarantine of the infected holding; isolation of animals susceptible for the disease; ban on movement of susceptible animals inside the holding, taking into account possible vectors of the disease; ban on movement to and from the holding; disinfection barriers at the entrance/exit of the holding and the individual buildings in the holding. Once brucellosis is officially confirmed the following measures are applied (beside the above mentioned): ban on trade with animals, animal products, by-products, waste, feeding stuff and all other stuff by which the disease can be transmitted; slaughter of infected animals; harmless disposal of carcasses of dead animals, aborted fetuses, placentas and ovarian fluids; harmless disposal of waste, manure, litter, by which the disease can be transmitted; testing of all susceptible animals on the holding; ban on use of milk from the infected holding; ban on use of animals from the infected holding in breeding purposes; clinical inspection of all susceptible animals on the holding; disinfection, disinfestation and deratisation (hereinafter DDD). Disease free status of the infected holding is suspended and is restored when all infected or susceptible animals are slaughtered and the results of the two tests at an interval of at least three months or more, of all animals on the holding over six months old, are negative. If the status of the herd is suspended, the marketing of products, or products from these animals is possible in accordance with Regulation 854/2004 and regulation, which sets out measures for the detection, prevention and eradication of brucellosis. Measures at the slaughterhouse: If animals did not react negatively on a brucellosis test or there are other grounds for suspecting infection, they are to be slaughtered separately from other animals, taking precautions to avoid contamination of other carcasses, the slaughter line and staff present in the slaughterhouse. Meat from animals in which post mortem inspection has revealed lesions indicating acute infection with brucellosis is to be declared unfit for human consumption. In the case of animals reacting positively or inconclusively to a brucellosis test, the udder, genital tract and blood must be declared unfit for human consumption, even if it has not detected any such lesions.

Notification system in place

According to Rules on animal diseases the notification of disease is mandatory. In the case of a suspected presence of disease, all the necessary steps shall immediately be taken in order to confirm the presence of disease, or to rule out the suspicion thereof. Natural and legal persons shall immediately notify UVHVVR/AFSVSPP or a veterinary organisation in case they establish a threat to animal health or as a consequence thereof to human health. When the presence of a disease is suspected the veterinary organisation shall immediately inform the UVHVVR/AFSVSPP of the suspected disease. Designated laboratory shall immediately inform UVHVVR on the results of diagnostic test. In case of a primary outbreak of disease in the country, the designated laboratory shall immediately communicate the results of diagnostic test to the UVHVVR/AFSVSPP. UVHVVR/AFSVSPP officially confirms the presence of the disease. In the case of a zoonosis, the UVHVVR/AFSVSPP shall notify of the suspected presence of disease also the competent public health services. UVHVVR/AFSVSPP shall also notify the disease to the Commission and other member states through ADNS system.

Results of the investigation

The results of the investigation are part of the reporting table.

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

No positive case has been found since 1951. In Slovenia, taking into account the results of testing, the possibility of transmission of the disease to humans is negligible.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3 INFORMATION ON SPECIFIC ZONOSSES AND ZONOTIC AGENTS

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

3.1 SALMONELLOSIS

3.1.1 Salmonella in foodstuffs

3.1.1.1 Salmonella in food - All foodstuffs - food sample - Surveillance - Official sampling - Objective sampling - n=1

Monitoring system

Sampling strategy

Joint national monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99. Monitoring program in part, which is in the competence of the Health Inspectorate of the Republic of Slovenia, includes food groups in which the presence of zoonotic agent posing the greatest risk and where probability of occurrence occurs due to improper implementation of the manufacturing and hygiene practices, taking into account the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005 and the results of official control from the previous years, with a purpose to check the compliance of foodstuffs and compliance of food businesses with food law. Samples were taken by inspectors as part of official control at retail and at wholesale. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004 but taking into account definitions from EFSA Manuals term surveillance as sampling context was used because in case of a positive result, which represents the non-compliance, measures are implemented. Objective sampling was applied.

Frequency of the sampling

At retail

Sampling was performed once a year.

Type of specimen taken

At retail

Foodstuffs intended for special nutritional uses: infant formula - dried - intended for infants below 6 months, dried dietary foods for special medical purposes intended for infants below 6 months, follow-on formulae, ready-to-eat dietary foods for special medical purposes and food supplements.

Methods of sampling (description of sampling techniques)

At retail

Samples were taken randomly from the available part of the consignment. A single sample was comprised of minimum 1 prepacked unit of the product weighed at least 200g. Samples were delivered to the official laboratory taking into account the manufacturer's storage instructions.

Definition of positive finding

At retail

Presence of Salmonella spp. in 25g.

Diagnostic/analytical methods used

At retail

ISO 6579 (2002) - Salmonella

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Registration of establishments and official control.

Measures in case of the positive findings or single cases

Informing the owner of the sample, monitoring of the voluntary actions taken by the responsible food business operator, enforcement of necessary actions (withdrawal/recall, consumer notice), informing competent authority in the country of producer and other countries flagged for action through RASFF system.

Notification system in place

Food business operators are obliged to inform competent authority in case they are informed about the presence of a zoonotic agent in food under their control, which pose a risk to the health of consumers and to take measures in accordance with the Regulation (ES) 178/2002. Exchange of information between competent authorities through the RASFF system.

Results of the investigation

In 2016 Salmonella spp. was not detected in any sample of foodstuffs intended for special nutritional uses and food supplements.

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

Situation concerning Salmonella spp. in foodstuffs intended for special nutritional uses and food supplements is favourable.

3.1.1.2 Salmonella in food - Dairy products, unspecified - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Cheese and ice cream were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002, ISO 6579:2002/Amd 1:2007

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 26 samples of cheese and 30 samples of ice cream were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.3 Salmonella in food - Fishery products, unspecified - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Smoked fish RTE and live bivalve molluscs were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 10 samples of smoked fish and 11 samples of live bivalve molluscs were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non-compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.4 Salmonella in food - Fruits and vegetables - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Pre cut vegetables RTE, sprouts RTE and pre cut fruits RTE were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002/Amd 1:2007

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 70 samples of pre cut vegetables RTE, 20 samples of pre cut fruits RTE and 10 samples of sprouts RTE were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.5 Salmonella in food - Meat from broilers (Gallus gallus) - fresh - chilled - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 31 samples of broiler meat were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non compliances have not been confirmed. Nevertheless, in 8 samples other serovars have been confirmed (6x S.Infantis, 1x S.Agona, 1x S.Coeln).

Additional information

3.1.1.6 Salmonella in food - Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - chilled - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 39 samples of meat preparations from poultry meat were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non-compliances have been confirmed 13 samples (12x S.Infantis, 1x S.Coeln).

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.7 Salmonella in food - Meat, mixed meat - meat preparation - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non-compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 34 samples of meat preparation (mixed meat) were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.8 Salmonella in food - Meat, mixed meat - meat products - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 60 samples of RTE meat products were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non-compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.9 Salmonella in food - Meat, mixed meat - minced meat - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 26 samples of minced meat (mixed meat) were taken and analysed on salmonella. Taking into account criteria set in the Regulation (ES) No 2073/2005, non compliances have been confirmed in 1 sample (monofasic S.Typhimurium).

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.10 Salmonella in food - Other processed food products and prepared dishes - unspecified - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Bakery products - desserts, sandwiches and other processed food (deli dishes) were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002/Amd 1:2007

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 34 samples of bakery products - desserts, 40 samples of sandwiches and 40 samples of other processed food (deli dishes) were taken and analysed on salmonella, within monitoring programme. Presence of Salmonella spp. has not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.11 Salmonella in food - Seeds, dried - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002/Amd 1:2007

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 10 samples of seeds (dried) were taken and analysed on salmonella, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.1.12 Salmonella in food - Spices and herbs - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 6579:2002/Amd 1:2007

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 20 samples of spices and herbs and 5 samples of marinade made from spices and herbs were taken and analysed on salmonella, within monitoring programme. Presence of Salmonella spp. hasn't been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.1.2 Salmonella in animals

3.1.2.1 Salmonella in animal - Gallus gallus (fowl) - broilers - environmental sample - boot swabs - Control and eradication programmes - Census

Monitoring system

Sampling strategy

Broiler flocks

National Salmonella control programme in broiler flocks covers all flocks intended for slaughter in approved slaughterhouses.

Frequency of the sampling

Broiler flocks: Before slaughter at farm

Business operators sample every flock within 3 weeks before slaughter. Official sampling is conducted in least one flock on 10% of holdings with more than 5000 birds.

Type of specimen taken

Broiler flocks: Before slaughter at farm

Boot swab samples.

Methods of sampling (description of sampling techniques)

Broiler flocks: Before slaughter at farm

Sampling at the initiative of business operator and official sampling: Two pairs of boot swabs are taken. For analysis all boot swab samples may be pooled into one sample.

Case definition

Broiler flocks: Before slaughter at farm

Flock shall be considered positive where the presence of *S. Enteritidis* or/and *S. Typhimurium* (other than vaccine strain) was detected in the broiler flock.

Diagnostic/analytical methods used

Broiler flocks: Before slaughter at farm

EN/ISO 6579-2002/Amd 1:2007

Other preventive measures than vaccination in place

Broiler flocks

Business operators carrying out primary production shall comply with the general hygiene provisions as laid down in Part A of Annex I to Regulation (EC) No 853/2004 on the hygiene of foodstuffs.

Control program/mechanisms

The control program/strategies in place

Broiler flocks

National control programme for broilers is carried out in accordance with the national Rules on monitoring and control of salmonella in poultry of Gallus Gallus, Commission Regulation (EU) No. 200/2012 and Commission Regulation (EU) No. 1177/2006.

Measures in case of the positive findings or single cases

Broiler flocks: Before slaughter at farm

In case of detection of Salmonella Enteritidis and/or Salmonella Typhimurium the flock must be destroyed or slaughtered. Slaughter shall be carried out at the slaughterhouse as the last batch in the slaughtering process of that particular production day, by a method minimising the possibility of spreading Salmonella. Meat obtained from such poultry may be placed on the market only if they have been heat treated or subjected to other processing guaranteeing the elimination of Salmonella. On removal and/or dispatch of the flock, in which Salmonella has been detected, the manure and bedding shall be removed, followed by thorough cleaning and disinfection. Prior to repopulation, bacteriological control of the efficiency of cleaning and disinfection shall be carried out, with negative results.

Notification system in place

Salmonella in broiler flock at the farm: In the case of detection of Salmonella Enteritidis and/or Salmonella Typhimurium business operator must inform AFSVSP regional office within two working days after receipt of the laboratory results, by email, telephone or by fax. Laboratory must inform AFSVSP regional office in the case of detection of relevant Salmonella the next working day after the analysis is completed. In case of detection of other serovars laboratory must inform AFSVSP regional office within five working days after the analysis is completed.

Results of the investigation

In 2016, 2403 broiler flocks were sampled. Salmonella spp. was detected in 271 flocks on 71 holdings. Targeted serovars were not identified in any of positive broiler flock.

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

In period from 2009 by the end of 2016 the Union target for broiler flocks was achieved, as the maximum percentage of broiler flocks remaining positive for S.Enteritidis/S.Typhimurium, was below 2 %. In 2016, as well, in particular the number of broiler flocks with the identified presence of S.Infantis increased. The presence of S.Infantis in broiler flocks has been increasing from 2010. S.Infantis does not occur at all in other poultry species, or in a very small percentage. The preliminary results of a study, typing 93 S.Infantis isolates using the PFGE method, where the isolates were obtained in the period from 2007 - 2013, show that the most probable reason for the prevalence of S.Infantis in broiler flocks is genetically stable S.Infantis strain that is prevalent in the environment.

3.1.2.2 Salmonella in animal - Meat from pig - carcass - Slaughterhouse - food sample - carcass swabs - Control and eradication programmes - HACCP and own check

Monitoring system

Sampling strategy

Fattening herds

Sampling has been performed according to the requirements laid down in Commission Regulation (EU) No 218/2014. Sampling has been performed by the food business operators, within the frame of point 2.1.4, of Annex I, of the Regulation No 2073/2005.

Type of specimen taken

Fattening herds at slaughterhouse (herd based approach)

Pig carcasses have been sampled, according to the point 2.1.4, of the Regulation No 2073/2005.

Methods of sampling (description of sampling techniques)

Fattening herds at slaughterhouse (herd based approach)

Method of sampling is described in the Regulation No 2073/2005.

Case definition

Fattening herds at slaughterhouse (herd based approach)

Defined in Annex I, of the Regulation No 2073/2005, point 2.1.4.

Measures in case of the positive findings or single cases

In case of exceeded criteria set in the Regulation No 2073/2005, measures would be taken in accordance of Article 7 of the Regulation No 2073/2005 and Article 2 of the Regulation No 218/2014.

Results of the investigation

In 2016, 749 samples were taken. Presence of Salmonella spp. has not been confirmed in any of analysed samples.

3.1.2.3 Salmonella in animal - Gallus gallus (fowl) - laying hens - environmental sample - boot swabs - Control and eradication programmes - Census

Monitoring system

Sampling strategy

Laying hens flocks

The National Salmonella spp. Control Programme in laying hen flocks includes all the adult laying-hen flocks, which are reared for the purpose of production of eggs intended for the placing on the market for public consumption, excluding the laying-hen flocks producing eggs for private domestic consumption, laying hen flocks with 50 or less birds, if eggs are intended for sale to the final consumer at the holding or at local market and laying hen flocks at holdings with less than 350 or less birds if eggs are intended for sale at the holding to the final consumer. Official routine sampling in adult laying hen flock is conducted at least in one flock annually at holdings keeping at least 1000 hens. The official routine sampling is conducted also in the one third (1/3) holdings with less than 1000 laying hens. Official sampling is carried out also in accordance with Regulation (EC) No. 517/2011 point 2.1 (b) – (e) and in accordance with point 4(b) of Part D of Annex II to Regulation (EC) No 2160/2003, in order to exclude false-positive initial results. Business operator: Sampling at the initiative of operators is carried out at day old chicks, at rearing flocks and at adult laying hens flocks.

Frequency of the sampling

Laying hens: Day-old chicks

Every consignment of day old chicks arriving to the holding in the same means of transport and from the same hatchery is sampled.

Laying hens: Rearing period

Two weeks prior to entering the laying phase or two weeks before moving into laying unit.

Laying hens: Production period

Food business operators: samples are taken every 15 weeks. The first sampling is conducted at the age of 24+/-2 weeks. Official routine sampling in adult laying hen flock: at least in one flock annually at holdings keeping at least 1000 hens and in approximately 30% of holdings with less than 1000 laying hens. Official sampling is carried out also in accordance with Regulation (EC) No. 517/2011 point 2.1 (b) – (e) and in accordance with point 4(b) of Part D of Annex II to Regulation (EC) No 2160/2003, in order to exclude false-positive initial results.

Type of specimen taken

Laying hens: Day-old chicks

Internal linings of transport boxes and/or of the carcasses of the chicks found dead on arrival.

Laying hens: Rearing period

Faeces (cage flocks) or boot swab samples (barn or free range flocks).

Laying hens: Production period

Faeces (cage flocks) or boot swab samples (barn or free range flocks).

Methods of sampling (description of sampling techniques)

Laying hens: Day-old chicks

One pooled sample of internal linings of transport boxes shall be composed so as to take at random per ever 500 day-old chicks 1 visibly soiled lining, but not more than 10 linings.

Laying hens: Rearing period

In cage flocks: 2 × 150 grams of naturally pooled faeces is taken from all belts or scrapers in the house. In barn or free-range houses: two pairs of boot swabs are taken. Two samples of faeces or two pairs of bootswabs may be pooled for analysis at the laboratory.

Laying hens: Production period

Business operators: In cage flocks: 2 × 150 grams of naturally pooled faeces is taken from all belts or scrapers in the house In barn or free-range houses: two pairs of boot swabs are taken. Samples may be pooled for analysis at the laboratory. Official sampling referred to in point 2.1.(a), (b), (d) and (e) of Annex to Regulation 517/2011/EC: 3 x 150 grams of naturally pooled faeces is taken (cage system) or 3 pairs of boot swabs (in barn or free-range houses). Official sampling as referred to in point 2.1.(c) is conducted by the method as laid down in point 4(b) of Part D to Annex II to Regulation (EC) No 2160/2003 (7 samples). During the official routine sampling of the adult laying hen flocks for the laboratory investigation the two samples are pooled into a single pooled sample, and the investigation of the additional faeces/boot swab sample is conducted separately. During the official sampling as referred to in point 2.1 (b), (d) and (e) of Annex to Regulation 517/2011/EC, and in point 4(b) of Part D to Annex II to Regulation (EC) No 2160/2003, the investigation of samples shall be conducted separately for every individual sample.

Case definition

Laying hens: Day-old chicks

Flock is considered positive where the presence of *Salmonella* Enteritidis and *Salmonella* Typhimurium (other than vaccine strains) is detected in samples of internal linings of delivery boxes or in dead chicks.

Laying hens: Rearing period

Flock is considered positive where the presence of *Salmonella* Enteritidis and *Salmonella* Typhimurium (other than vaccine strains) is detected in one or more sample taken by official veterinarian at the holding.

Laying hens: Production period

A laying flock is considered positive where the presence of *Salmonella* Enteritidis and *Salmonella* Typhimurium (other than vaccine strains) is detected in one or more samples in the laying flock. The adult laying hen flock is not considered positive if *S. Enteritidis* and/or *S. Typhimurium* is detected in samples taken by business operators, and initial results has not been confirmed by official sampling, using the sampling protocol defined in point 4 of Part D of Annex II to Regulation (EC) No 2160/2003. Laying hen flock is also reported as positive if presence of antimicrobials have been detected in the flock.

Diagnostic/analytical methods used

Laying hens: Day-old chicks

Method in accordance with the OIE Manual, 5th ed., 2004 (dead chicks); Amendment 1 of EN/ISO 6579-2001/Amd 1:2007 (internal linings)

Laying hens: Rearing period

Amendment 1 of EN/ISO 6579-2001/Amd 1:2007

Laying hens: Production period

Amendment 1 of EN/ISO 6579-2001/Amd 1:2007

Vaccination policy

Laying hens flocks

Vaccination programme is not applied in the Republic of Slovenia. Business operators may decide on performing voluntary vaccination. On approximately 70 % of the holdings, flocks are vaccinated against Salmonella. Vaccination of laying hen flocks, which is conducted during the rearing phase (rearing flocks). In most laying hen flocks, vaccination is carried out against S. Enteritidis, only. Live vaccines are used for vaccination of laying hen flocks.

Other preventive measures than vaccination in place

Laying hens flocks

Business operators carrying out primary production shall comply with the general hygiene provisions as laid down in Part A of Annex I to Regulation (EC) No 853/2004 on the hygiene of foodstuffs. Official checks of the laying hen holdings are carried out on the basis of risk analysis. Each holding is assessed according to harmonised criteria. Based on the results of assessment holdings are checked every 6 months, once per year or every 2 years.

Control program/mechanisms

The control program/strategies in place

Laying hens flocks

National control programme for laying hens is carried out in accordance with the national legislation, on the basis of the Rules for monitoring and control of salmonella, Commission Regulation (EU) No. 517/2011 and Commission Regulation (EC) No. 1177/2006.

Measures in case of the positive findings or single cases

Laying hens flocks

Where S. Enteritidis or S. Typhimurium is detected, the following measures to be implemented: 1) ban on animal movements from the positive flock, unless for slaughter or destruction of the flock. If the flock is slaughtered slaughter shall be carried out as the last batch in the slaughtering process, by a method minimising the possibility of spreading Salmonella. Meat obtained from such poultry may be placed on the market if they have been subjected to heat treatment or another processing guaranteeing the elimination of Salmonella. 2) eggs must not be placed on the market for human consumption. However eggs may be used for human consumption as Class B eggs. Eggs may be delivered only to approved egg processing establishment and must be treated in a manner that guarantees the elimination of Salmonella; 3) at the holding, epizootiological investigation shall be conducted and feed samples taken for testing for the presence of Salmonellae, where applicable for establishing the source of infection. 4) In order to exclude false-positive initial results if S. Enteritidis and/or S. Typhimurium is detected in samples taken by business operators, official veterinarian shall carry out official sampling, using the sampling protocol defined in point 4(b)(i, ii or iii) of Part D of Annex II to Regulation (EC) No 2160/2003. 5) In case that Salmonella enteritidis or Salmonella typhimurium is detected in a single laying flock at the holding, official sampling is carried out in all the other laying hen flocks at the holding. 6) upon removal or dispatch of the flock in which Salmonella spp. has been identified, the manure shall be removed and thorough cleaning and disinfection must be carried out; before restocking, the bacteriological control shall be carried out as to the effectiveness of cleaning and disinfection, with negative results.

Notification system in place

In the case of detection of Salmonella Enteritidis and/or Salmonella Typhimurium business operator must inform AFSVSPP regional office within two working days after receipt of the laboratory results, by email, telephone or by fax. Laboratory must inform AFSVSPP regional office in the case of detection of relevant Salmonella the next working day after the analysis is completed. In case of detection of other serovars laboratory must inform AFSVSPP regional office within five working days after the analysis is completed.

Results of the investigation

In 2016, 211 adult laying hen flocks and 157 rearing laying hen flocks were included in the Salmonella control programme. Salmonella spp. was identified in 6 adult laying hen flocks, and thereof, in 3 flocks S. Enteritidis, and S. Ohio and Salmonella group O7 and Salmonella group O:30 in a single flock. In rearing flocks, Salmonella spp. was detected in 3 flocks (S. Ohio, S. Infantis and S. Saintpaul in a single flock).

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

Within the baseline study conducted in the period 2004 – 2005, the presence of Salmonella spp. was detected in 19.4 % of the flocks, and thereof, the presence of S. Enteritidis was detected in 9.2 % laying hen flocks. S. Typhimurium was not detected in the adult laying hen flocks. In 2008, S. Enteritidis was detected in 8.7 % of the adult laying hen flocks, meaning that the percentage of adult laying hen flocks was by 0.4 % higher than the Union target that the Republic of Slovenia was supposed to achieve in 2008. In the period from 2009 by the end of 2016 the Union target were met, as the number of adult laying hen flocks with identified Salmonella Enteritidis or Salmonella Typhimurium decreased by more than 10 % in each year or remains less than 2%.

3.1.2.4 Salmonella in animal - Gallus gallus (fowl) - breeding flocks, unspecified - environmental sample - boot swabs - Control and eradication programmes - Census

Monitoring system

Sampling strategy

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

National Salmonella spp. control programme in breeding flocks covers all parent breeding flocks in the territory of the Republic of Slovenia. There are no grandparent, great grandparent and elite breeding flocks in Slovenia. Official sampling is conducted by official veterinarians at the hatcheries and at the holdings. Once a year, official inspection is conducted at all the holdings keeping the breeding flocks, and at the hatcheries. Sampling at the initiative of business operators is conducted when the chicks are one day old (day-old chicks), at four weeks old, and two weeks prior to transfer into the unit for adult animals, or two weeks prior the onset of the laying phase of the pullets. The adult breeding flocks are sampled every 2 weeks at the hatchery, except in cases of export of or trade in hatching eggs, where the sampling was conducted at the holding.

Frequency of the sampling

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

Every consignment of day old chicks arriving to the holding in the same means of transport and from the same hatchery is sampled.

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

Every flock is sampled at four week of age and two weeks prior to entering the laying phase or moving into laying unit.

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

Sampling at the initiative of business operators was conducted every 2 weeks at the hatchery. In case of trade in hatching eggs, the flock sampling was conducted at the holding. Official routine sampling of adult breeding flocks was conducted every 16 weeks at the hatchery and twice during the production cycle (first sampling is conducted within four weeks after the onset of the laying phase or after transfer to the laying unit, and second sampling is conducted towards the end of the production phase, but not earlier than 8 weeks prior to the end of production cycle). In case of trade in hatching eggs, instead at the hatchery, the official sampling of the flock was conducted at the holding. Official confirmatory sampling of adult breeding flocks at the holding was conducted where relevant Salmonella serovar was identified in samples of eggshells taken at the hatchery during the official routine sampling at the hatchery.

Type of specimen taken

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

Internal linings of transport boxes and/or of the carcasses of the chicks found dead on arrival.

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

Bootswabs

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

At the hatchery (sampling by FBOs and official sampling): Eggshells . At the holding (official routine sampling): Bootswabs

Methods of sampling (description of sampling techniques)

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

At least one pooled sample of the internal linings of transport boxes, or carcasses of the chicks found dead on arrival; one pooled sample of internal linings of transport boxes shall be composed so as to take at random per ever 500 day-old chicks 1 visibly soiled lining, but not more than 10 linings.

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

Sampling at the initiative of the operator: five pairs of boot swab samples tested as two pooled samples Official confirmatory sampling: five pairs of boot swab samples; each boot swab sample is tested separately

Breeding flocks: Production period

Sampling at the initiative of business operators and official sampling at the hatchery: pooled sample of the eggshells, weighing 250 g taken from 25 hatchers separate hatching baskets . Official routine sampling at the holding and sampling at the initiative of business operatorIn in case of trade in hatching eggs: five pairs of boot swab samples tested as two pooled samples. Official confirmatory sampling: five pairs of boot swab samples; each boot swab sample is tested separately

Case definition

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

Flock is considered positive where the presence of *Salmonella* Enteritidis, *Salmonella* Typhimurium, *Salmonella* Infantis, *Salmonella* Hadar and/or *Salmonella* Virchow (other than vaccine strains) is detected samples taken at the holding during official sampling.

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

Flock is considered positive where the presence of *Salmonella* Enteritidis, *Salmonella* Typhimurium, *Salmonella* Infantis, *Salmonella* Hadar and/or *Salmonella* Virchow (other than vaccine strains) is detected in samples taken at the holding during official sampling.

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

In case of adult breeding flocks, a flock is positive in cases referred to in point 4 of Annex to Regulation 200/2010/EC. Flock is also reported as positive if antimicrobial are detected in the breeding flock during official confirmatory sampling.

Diagnostic/analytical methods used

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

Method in accordance with the OIE Manual, 5th ed.,2004 (dead chicks); Amendment 1 of EN/ISO 6579-2002/Amd 1:2007 (internal linings)

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

Amendment 1 of EN/ISO 6579-2002/Amd 1:2007

Vaccination policy

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

Vaccination of breeding flocks is not mandatory in the Republic of Slovenia. Business operators may decide on performing voluntary vaccination. Voluntary vaccination is conducted in all breeding flocks against *S. Enteritidis* and *S. Typhimurium*. Business operators conduct the vaccination exclusively during the rearing period (rearing flocks only are vaccinated). Against *S. Typhimurium* only inactivated vaccines are available.

Other preventive measures than vaccination in place

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

In accordance with the Rules on veterinary conditions for the trade in poultry, day-old chicks and hatching eggs in the territory of EU and for import from third countries, business operators shall fulfil the requirements as laid down in Chapters I and II of Annex II to Council Directive 2009/158/EEC. Compliance with the above conditions is verified by the official veterinarians once per year.

Control program/mechanisms

The control program/strategies in place

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

National control programme for breeding flocks is carried out in accordance with the national Rules on monitoring and control of *Salmonella* in poultry of *Gallus Gallus*, Commission Regulation (EU) No 200/2010 and Commission Regulation (EU) No 1177/2006.

Measures in case of the positive findings or single cases

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

I) In case of detection of *Salmonella* Enteritidis and/or *Salmonella* Typhimurium 1) Non-incubated eggs from the flock must be destroyed or delivered to approved egg processing establishment and treated in a manner that guarantees the elimination of *Salmonella*; 2) Incubated eggs, still present in a hatchery, must be destroyed or treated in accordance with Regulation (EC) No 1069/2009. 3) All birds, including day-old chicks, in the flock must be slaughtered or destroyed so as to reduce as much as possible the risk of spreading *salmonella*. 4) Upon removal or dispatch of the flock in which *Salmonella* spp. has been identified, the manure and/or bedding shall be removed in accordance with regulations governing the handling of animal by-products and thorough cleaning and disinfection must be carried out; before restocking, the bacteriological control shall be carried out as to the effectiveness of cleaning and disinfection, with negative results. II) In case of detection of *Salmonella* Infantis, *Salmonella* Hadar and/or *Salmonella* Virchow the business operator shall prepare for the positive breeding flock a sanitisation programme, and provide for the implementation of all the flock sanitisation measures. By conclusion of the sanitisation measures, business operator shall provide for the hatching of eggs in the separate hatchers and for the traceability of eggs and of the day-old chicks, movements of day-old chicks shall be authorised to the laying-hen rearing holdings only, from which the animals are moved to holdings with the registered houses, or to the broiler rearing holdings, from which the broilers are intended for slaughter and transported to the approved slaughterhouses. On conclusion of sanitisation of the particular flock, the official veterinarian shall conduct the official sampling.

Notification system in place

Notification: In the case of detection of relevant *Salmonella* serovars business operator must inform AFSVSPP regional office within two working days after receipt of the laboratory results, by email, telephone or by fax. Laboratory must inform AFSVSPP regional office in the case of detection of relevant *Salmonella* the next working day after the analysis is completed. In case of detection of other serovars laboratory must inform AFSVSPP regional office within five working days after the analysis is completed.

Results of the investigation

In 2016, 98 rearing breeding flocks and 131 adult breeding flocks were included in the national Salmonella control programme. The presence of Salmonella Ohio was detected in 1 adult breeding flocks. In rearing breeding flocks presence of Salmonella spp. was not detected.

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

In the period from 2007 by the end of 2010, the Republic of Slovenia achieved the Union target for breeding flocks, as the maximum percentage of adult breeding flocks remaining positive for S.Enteritidis, S.Typhimurium, S.Hadar, S.Virchow and S.Infantis was below 1 % in all the four years. In the same period, also the percentage of adult breeding flocks remaining positive for Salmonella spp. in the adult breeding flocks was below 1 %. In 2011, S.Typhimurium was detected in 2 flocks and the percentage of adult breeding flocks positive for targeted serovars, was higher than 1 %. In period from 2012 by the end of 2016 the Union target for breeding flocks was achieved, as the maximum percentage of adult breeding flocks remaining positive for targeted serovars was below 1 %. In the same period, the percentage of adult breeding flocks remaining positive for targeted serovars was 0% in the period 2012 – 2014, 0, 76 % in 2015 and 0% in 2016.

3.1.2.5 Salmonella in Turkeys - fattening flocks - breeding flocks and meat production flocks

Monitoring system

Sampling strategy

Meat production flocks

There are no breeding flocks of turkeys in the Republic of Slovenia. National Salmonella spp. control programme in fattening turkey flocks covers all flocks intended for slaughter in approved slaughterhouses. Food business operators of the slaughterhouse take samples of fattening turkey carcasses for Salmonella analysis in line with the Regulation (EC) No. 2073/2005.

Frequency of the sampling

Meat production flocks: Before slaughter at farm

Sampling at the initiative of the food business operators is carried out at the holdings within three weeks before fattening turkeys are leaving for slaughter in approved slaughterhouses. The results of the analysis of the samples must be known before animals leave for slaughterhouse. Official sampling is conducted by official veterinarians in at least one flock of fattening turkeys at 10% of holdings with more than 500 birds.

Type of specimen taken

Meat production flocks: Before slaughter at farm

Boot swab samples.

Methods of sampling (description of sampling techniques)

Meat production flocks: Before slaughter at farm

Sampling at the initiative of business operator and official sampling: At least two pairs of boot swabs are taken. All boot swabs may be pooled into one sample for testing.

Case definition

Meat production flocks: Before slaughter at farm

A flock of fattening turkeys is considered positive where the presence of *Salmonella* Enteritidis and/or *Salmonella* Typhimurium (other than vaccine strains) was detected in the flock.

Diagnostic/analytical methods used

Meat production flocks: Before slaughter at farm

EN/ISO 6579-2002/Amd 1:2007

Other preventive measures than vaccination in place

Meat production flocks

Business operators carrying out primary production shall comply with the general hygiene provisions as laid down in Part A of Annex I to Regulation (EC) No 853/2004 on the hygiene of foodstuffs.

Control program/mechanisms

The control program/strategies in place

Meat production flocks

National control programme for turkeys is carried out in accordance with the national Rules on monitoring and control of salmonella in turkeys, Commission Regulation (EU) No. 1190/2012 and Commission Regulation (EU) No. 1177/2011.

Measures in case of the positive findings or single cases

Meat Production flocks

In case of detection of *Salmonella* Enteritidis and/or *Salmonella* Typhimurium the flock must be destroyed or slaughtered. Slaughter shall be carried out at the slaughterhouse as the last batch in the slaughtering process of that particular production day, by a method minimising the possibility of spreading *Salmonella*. Meat obtained from such poultry may be placed on the market only if they have been heat treated or subjected to other processing guaranteeing the elimination of *Salmonella*. On removal and/or dispatch of the flock, in which *Salmonella* has been detected, the manure and bedding shall be removed, followed by thorough cleaning and disinfection. Prior to repopulation, bacteriological control of the efficiency of cleaning and disinfection shall be carried out, with negative results.

Notification system in place

In the case of detection of *Salmonella* Enteritidis and/or *Salmonella* Typhimurium business operator must inform AFSVSPP regional office within two working days after receipt of the laboratory results, by email, telephone or by fax. Laboratory must inform AFSVSPP regional office in the case of detection of relevant *Salmonella* the next working day after the analysis is completed. In case of detection of other serovars laboratory must inform AFSVSPP regional office within five working days after the analysis is completed.

Results of the investigation

In 2016, 141 fattening turkey flocks were tested before slaughter. *Salmonella* spp. was identified in six (6) flocks. In all fattening turkey flocks S.Ohio was identified.

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

The Union target were fully met in the period 2010 – 2016, as the number of turkey fattening flocks with identified Salmonella Enteritidis or Salmonella Typhimurium was less 1 % in each year .

3.2 CAMPYLOBACTERIOSIS

3.2.1 Campylobacter in animals

3.2.1.1 Campylobacter in animal - Meat from broilers (Gallus gallus) - carcass - food sample

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99.

Frequency of the sampling

At slaughter

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

At slaughter

Neck skins from broilers were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

At slaughter

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia and was carried out with a view to monitoring the presence of Campylobacter spp. in food. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin (vegetables) and domestic origin (broiler neck skins). Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions (in case of transport of vegetables).

Case definition

At slaughter

A sample in which thermotolerant *Campylobacter* spp. have been isolated.

Diagnostic/analytical methods used

At slaughter

Diagnostic/analytical methods used: ISO10272-1, ISO10272-2.

Other preventive measures than vaccination in place

GMP, GHP, HACCP

Control program/mechanisms

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 150 samples of neck skins from broilers were sampled and analysed, within monitoring programme. Samples of broilers neck skin were analysed with enumeration and detection method. In case of positive result determination of species was performed, within detection method. From 150 samples of neck skins tested, *C. coli* or *C. jejuni* or both species have been found in 105 samples (70%); 69x CJ, 15x CC and in 21 cases both of them. Looking the results from enumeration method, 149 analyses was performed. Results from enumeration method were used to monitor contamination of carcasses with *Campylobacter* spp. after slaughter. Presence of *Campylobacter* above 1000 cfu/g has been detected in 72 samples (48%).

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.2.1.2 *Campylobacter* in animal - Vegetables - pre-cut - ready-to-eat - food sample

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99.

Frequency of the sampling

At slaughter

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

At slaughter

Pre cut vegetables ready to eat were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

At slaughter

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia and was carried out with a view to monitoring the presence of *Campylobacter* spp. in food. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin (vegetables) and domestic origin (broiler neck skins). Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions (in case of transport of vegetables).

Case definition

At slaughter

A sample in which thermotolerant *Campylobacter* spp. have been isolated.

Diagnostic/analytical methods used

At slaughter

Diagnostic/analytical methods used: ISO10272-1, ISO10272-2.

Other preventive measures than vaccination in place

GMP, GHP, HACCP

Control program/mechanisms

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 70 samples of pre cut vegetables ready to eat were sampled and analysed, within monitoring programme. Samples were analysed with enumeration method. Presence of *Campylobacter* spp. in pre cut vegetables has not been detected in any of analysed samples. The limit of detection was <10 cfu/g.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3 LISTERIOSIS

3.3.1 Listeria in foodstuffs

3.3.1.1 L. monocytogenes in food - Foodstuffs intended for special nutritional uses - food sample - Surveillance - Official sampling - Objective sampling - n=1

Monitoring system

Sampling strategy

Joint national monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99. Monitoring program in part, which is in the competence of the Health Inspectorate of the Republic of Slovenia, includes food groups in which the presence of zoonotic agent posing the greatest risk and where probability of occurrence occurs due to improper implementation of the manufacturing and hygiene practices, taking into account the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005 and the results of official control from the previous years, with a purpose to check the compliance of foodstuffs and compliance of food businesses with food law. Samples were taken by inspectors as part of official control at retail and at wholesale. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004 but taking into account definitions from EFSA Manuals term surveillance as sampling context was used because in case of a positive result, which represents the non-compliance, measures are implemented. Objective sampling was applied.

Frequency of the sampling

At retail

Sampling was performed once a year.

Type of specimen taken

At retail

Foodstuffs intended for special nutritional uses: ready-to-eat dietary foods for special medical purposes.

Methods of sampling (description of sampling techniques)

At retail

Samples were taken randomly from the available part of the consignment. A single sample was comprised of minimum 1 prepacked unit of the product weighed at least 200g. Samples were delivered to the official laboratory taking into account the manufacturer's storage instructions.

Definition of positive finding

At retail

Presence of *Listeria monocytogenes* in 25g.

Diagnostic/analytical methods used

At retail

ISO 11290-1:1996/Amd 1:2004

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Registration of establishments and official control.

Measures in case of the positive findings or single cases

Informing the owner of the sample, monitoring of the voluntary actions taken by the responsible food business operator, enforcement of necessary actions (withdrawal/recall, consumer notice), informing competent authority in the country of producer and other countries flagged for action through RASFF system.

Notification system in place

Food business operators are obliged to inform competent authority in case they are informed about the presence of a zoonotic agent in food under their control, which pose a risk to the health of consumers and to take measures in accordance with the Regulation (ES) 178/2002. Exchange of information between competent authorities through the RASFF system.

Results of the investigation

In 2016 *Listeria monocytogenes* was not detected in any sample of ready-to-eat foodstuffs intended for special medical purposes.

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

Situation concerning *Listeria monocytogenes* in ready-to-eat foodstuffs intended for special nutritional uses is favourable.

3.3.1.2 L. monocytogenes in food - Dairy products, unspecified - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Cheese and ice cream were sampled. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

EN/ISO 11290-2:1988/Amd 1:2004, Microbiological standard tests (NMKL 136:2010). Detection limit is less than 10 cfu/g (enumeration method).

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 26 samples of cheese and 30 samples of ice cream were taken and analysed on listeria, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, (100 cfu/g), non-compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3.1.3 L. monocytogenes in food - Fishery products, unspecified - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Fishery products (bakalar) and smoked fish RTE were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 11290-2:1998/Amd 1:2004. Detection limit is less than 10 cfu/g.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 9 samples of bakalar (fishery products) and 10 samples of smoked fish RTE were taken and analysed on listeria, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, (100cfu/g), 1 sample (bakalar) has been assessed as non-compliant.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3.1.4 L. monocytogenes in food - Fruits and vegetables - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Pre cut vegetables RTE and sprouts RTE were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 11290-2:1998/Amd 1:2004, Microbiological standard tests (NMKL 136:2010). Detection limit is less than 10 cfu/g (enumeration method).

Preventive measures in place

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 70 samples of pre cut vegetables RTE and 10 samples of sprouts RTE were taken and analysed on listeria, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, (100 cfu/g), non-compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3.1.5 L. monocytogenes in food - Meat, mixed meat - meat products - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 11290-2:1998/Amd 1:2004. Detection limit is less than 10 cfu/g.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 60 samples of RTE meat products were taken and analysed on listeria, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005 (100 cfu/g), non-compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3.1.6 L. monocytogenes in food - Milk from other animal species or unspecified - raw milk - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 11290-2:1998/Amd 1:2004. Detection limit is less than 10 cfu/g.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 61 samples of raw milk were taken and analysed on listeria, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, (100 cfu/g), non-compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3.1.7 L. monocytogenes in food - Other processed food products and prepared dishes - unspecified - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Bakery products - desserts, sandwiches and other processed food (deli dishes) were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for salmonella has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

ISO 11290-2:1998/Amd 1:2004, Microbiological standard tests (NMKL 136:2010) and ISO 11290-1:1998/Amd 1:2004. Detection limit is less than 10 cfu/g (enumeration method).

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 34 samples of bakery products - desserts, 40 samples of sandwiches and 40 samples of other processed food (deli dishes) were taken and analysed on listeria, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, non-compliances have not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3.2 Listeria in animals

3.3.2.1 L. monocytogenes in animal - Cattle (bovine animals) - animal sample

Monitoring system

Sampling strategy

Passive surveillance of disease, in animals, is performed.

Frequency of the sampling

Samples are taken in the case of clinical signs and/or detection of listeriosis in other animals at the same holding in accordance with national legislation and as differential diagnosis in the case of CNS signs.

Type of specimen taken

Type of samples: blood, milk, foetus (abortion), brain tissue, feed.

Case definition

The disease is confirmed based on clinical signs and positive bacteriological test results on *Listeria monocytogenes*.

Diagnostic/analytical methods used

Bacteriological method ISO 11290-1:1996

Vaccination policy

The vaccination program is not running.

Other preventive measures than vaccination in place

Persons who in the course of activities coming into direct contact with animals should have basic knowledge of animal diseases, their prevention and transmission to humans and knowledge about regulations on the protection of animals against diseases. The operator must in accordance with the rules, ensure hygiene in primary production (DHP) and record-keeping.

Control program/mechanisms

The control program/strategies in place

Registration and approval of holdings, plants, carriers, assembly centers and traders, who are under veterinary supervision; identification and registration of animals; regular official veterinary checks on holdings; movements of animals to be accompanied by the prescribed documents; veterinary referral of sick animals and animals from holdings of unproven or suspicious epidemiological situation; notification of positive cases to OU UVHVVR/AFSVSPP Communication between veterinary and public health service on the occurrence of zoonoses in animals or humans.

Measures in case of the positive findings or single cases

Preventive and control measures are performed according to Rules on animal diseases and Guidelines on measures for detection, prevention and eradication of certain diseases. Animal keeper is obliged to carry out measures for the prevention and spread of the disease. Depending on the nature of the disease and, if necessary, UVHVVR and public health services carry out epidemiological and epizootiological investigation. The measures can also be introduced when the health service notify the veterinary service of clinical signs in humans. Based on the results of the inquiry, measures can be ordered by UVHVVR/AFSVSPP to animal keeper, to introduce one or more of the following preventive measures: providing of safe feed that is fit for consumption and drinking water; providing and maintaining the required conditions of hygiene in animal accommodation facilities and in other premises and facilities where animals are kept; providing hygiene births and during milking; providing veterinary order in public places intended for animal assembly, in the means of transport intended for the transport of animals, products, raw materials, foodstuffs, waste and animal feed in pens and pastures and facilities intended for animal assembly, animal slaughter and for collection, treatment, processing and storing raw materials, products, foodstuffs, waste, and animal feed; providing food safety and compliance with conditions for their production and marketing; prevention of introducing pathogens in animal husbandry; implementation of veterinary measures in animal breeding farms; handling of animal carcasses and other waste, sewage, animal feces and urine in the prescribed manner; the provision of preventive disinfection, disinsection and deratization in buildings, public areas and means of transport; providing DDD in facilities on public surfaces and in the means of transport; communication between veterinary and public health services in case of zoonosis occurrence in animals or humans; other recovery measures; other necessary measures. Control measures in the case of confirmation of the disease: ban on the movement of susceptible animals; pasteurization of milk from healthy animals on the infected holding; destroying of milk from infected animals; culling of positive animals; in some cases (poultry, pigs) there is a possibility to antibiotic treatment; etc.

Notification system in place

Notification system is in place. According to national legislation (Rules on animal diseases), veterinary organisation shall notify positive case of listeriosis (confirmed with positive laboratory results) to UVHVVR/AFSVSPP regional office. As it is a zoonosis, every suspicion and confirmed case shall be also notified to public health services.

Results of the investigation including the origin of the positive animals

The results of the investigation are part of the reporting table.

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

In the last 5 years the trend of incidence of listeriosis in animals doesn't show significant deviations. The number of confirmed cases, however, each year is relatively small (4-12 cases per year).

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.3.2.2 L. monocytogenes in animal - Sheep and goats - animal sample

Monitoring system

Sampling strategy

Passive surveillance of disease, in animals, is performed.

Frequency of the sampling

Samples are taken in the case of clinical signs and/or detection of listeriosis in other animals at the same holding in accordance with national legislation and as differential diagnosis in the case of CNS signs.

Type of specimen taken

Type of samples: blood, milk, foetus (abortion), brain tissue, feed.

Case definition

The disease is confirmed based on clinical signs and positive bacteriological test results on *Listeria monocytogenes*.

Diagnostic/analytical methods used

Bacteriological method ISO 11290-1:1996

Vaccination policy

The vaccination program is not running.

Other preventive measures than vaccination in place

Persons who in the course of activities coming into direct contact with animals should have basic knowledge of animal diseases, their prevention and transmission to humans and knowledge about regulations on the protection of animals against diseases. The operator must in accordance with the rules, ensure hygiene in primary production (DHP) and record-keeping.

Control program/mechanisms

The control program/strategies in place

Registration and approval of holdings, plants, carriers, assembly centers and traders, who are under veterinary supervision; identification and registration of animals; regular official veterinary checks on holdings; movements of animals to be accompanied by the prescribed documents; veterinary referral of sick animals and animals from holdings of unproven or suspicious epidemiological situation; notification of positive cases to OU UVHVVR/AFSVSPP Communication between veterinary and public health service on the occurrence of zoonoses in animals or humans.

Measures in case of the positive findings or single cases

Preventive and control measures are performed according to Rules on animal diseases and Guidelines on measures for detection, prevention and eradication of certain diseases. Animal keeper is obliged to carry out measures for the prevention and spread of the disease. Depending on the nature of the disease and, if necessary, UVHVVR and public health services carry out epidemiological and epizootiological investigation. The measures can also be introduced when the health service notify the veterinary service of clinical signs in humans. Based on the results of the inquiry, measures can be ordered by UVHVVR/AFSVSPP to animal keeper, to introduce one or more of the following preventive measures: providing of safe feed that is fit for consumption and drinking water; providing and maintaining the required conditions of hygiene in animal accommodation facilities and in other premises and facilities where animals are kept; providing hygiene births and during milking; providing veterinary order in public places intended for animal assembly, in the means of transport intended for the transport of animals, products, raw materials, foodstuffs, waste and animal feed in pens and pastures and facilities intended for animal assembly, animal slaughter and for collection, treatment, processing and storing raw materials, products, foodstuffs, waste, and animal feed; providing food safety and compliance with conditions for their production and marketing; prevention of introducing pathogens in animal husbandry; implementation of veterinary measures in animal breeding farms; handling of animal carcasses and other waste, sewage, animal feces and urine in the prescribed manner; the provision of preventive disinfection, disinsection and deratization in buildings, public areas and means of transport; providing DDD in facilities on public surfaces and in the means of transport; communication between veterinary and public health services in case of zoonosis occurrence in animals or humans; other recovery measures; other necessary measures. Control measures in the case of confirmation of the disease: ban on the movement of susceptible animals; pasteurization of milk from healthy animals on the infected holding; destroying of milk from infected animals; culling of positive animals; in some cases (poultry, pigs) there is a possibility to antibiotic treatment; etc.

Notification system in place

Notification system is in place. According to national legislation (Rules on animal diseases), veterinary organisation shall notify positive case of listeriosis (confirmed with positive laboratory results) to UVHVVR/AFSVSPP regional office. As it is a zoonosis, every suspicion and confirmed case shall be also notified to public health services.

Results of the investigation including the origin of the positive animals

The results of the investigation are part of the reporting table.

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

In the last 5 years the trend of incidence of listeriosis in animals doesn't show significant deviations. The number of confirmed cases, however, each year is relatively small (4-12 cases per year).

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.4 TRICHINELLOSIS

3.4.1 Trichinella in animals

3.4.1.1 Trichinella in animal - Solipeds, domestic - Slaughterhouse - animal sample - organ/tissue - Surveillance - Official sampling - Census

Monitoring system

Sampling strategy

The presence of *Trichinella* spp.larvae in carcasses is monitored in the framework of mandatory post mortem examination of susceptible animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004). The epidemiological unit is the animal.

Frequency of the sampling

All animals which are susceptible for infestation with *Trichinella* spp. and whose meat is supplied directly to the final consumer have to be tested. Sampling on *Trichinella* spp. is part of post-mortem examination of animals.

Type of specimen taken

Samples of fresh meat - diaphragm muscles are usually taken, or other tissue according to Commission Regulation (ES) No. 2015/1375.

Methods of sampling (description of sampling techniques)

Sampling is performed in accordance with the Commission Regulation (EC) No. 2015/1375.

Case definition

Positive animal is an animal in which *Trichinella* sp. larvae have been detected.

Diagnostic/analytical methods used

Digestive method, according Commission Regulation (EC) No 2015/1375.

Vaccination policy

Vaccination was not performed.

Other preventive measures than vaccination in place

Effective waste and garbage management, pest control,...

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of positive result, measures were taken according to Regulation (ES) No. 854/2004.

Notification system in place

Notification system is in place.

Results of the investigation including the origin of the positive animals

In 2016, presence of *Trichinella* spp. larvae has not been confirmed.

Additional information

3.4.1.2 Trichinella in animal - Wild animals - Game handling establishment - animal sample - organ/tissue - Surveillance - Official sampling - Census

Monitoring system

Sampling strategy

The presence of *Trichinella* spp. larvae in carcasses is monitored in the framework of mandatory post mortem examination of susceptible animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004). The epidemiological unit is the animal.

Frequency of the sampling

All animals which are susceptible for infestation with *Trichinella* spp. and whose meat is supplied directly to the final consumer have to be tested. Sampling on *Trichinella* spp. is part of post-mortem examination of animals.

Type of specimen taken

Samples of fresh meat - diaphragm muscles are usually taken, or other tissue according to Commission Regulation (ES) No. 2015/1375.

Methods of sampling (description of sampling techniques)

Sampling is performed in accordance with the Commission Regulation (EC) No. 2015/1375.

Case definition

Positive animal is an animal in which *Trichinella* sp. larvae have been detected.

Diagnostic/analytical methods used

Digestive method, according Commission Regulation (EC) No 2015/1375.

Vaccination policy

Vaccination was not performed.

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of positive result, measures were taken according to Regulation (ES) No. 854/2004.

Notification system in place

Notification system is in place.

Results of the investigation including the origin of the positive animals

In 2016, four samples of wild boars were found positive on *Trichinella* spp. larvae. All four wild boars came from Hungary. Other animal species (bears) were negative.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.4.1.3 Trichinella in animal - Pigs - fattening pigs - Slaughterhouse - animal sample - organ/tissue - Surveillance - Official sampling - Census

Number of officially recognised *Trichinella*-free holdings

There is no *Trichinella*-free holdings in Slovenia.

Officially recognised regions with negligible *Trichinella* risk

There is no officially recognised regions with negligible *Trichinella* risk in Slovenia.

Monitoring system

Sampling strategy

General

The presence of *Trichinella* spp. larvae is monitored within the framework of mandatory post mortem examination of susceptible animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004, Commission Regulation (ES) No. 2015/1375). The epidemiological unit is the animal.

Frequency of the sampling

General

Sampling on *Trichinella* spp. is part of post-mortem examination of animals which are susceptible for infestation with *Trichinella* spp. and whose meat is supplied directly to the final consumer have to be tested.

Type of specimen taken

General

Samples of fresh meat - diaphragm muscles are usually taken, or other tissue according to Commission Regulation (ES) No. 2015/1375.

Methods of sampling (description of sampling techniques)

General

Sampling is performed in accordance with the Commission Regulation (EC) No. 2015/1375.

Case definition

General

Positive animal is an animal in which *Trichinella* sp. larvae have been detected.

Diagnostic/analytical methods used

General

Digestive method, according Commission Regulation (EC) No 2015/1375.

Preventive measures in place

Effective waste and garbage management, pest control,...

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of positive result, measures would be taken according to Regulation (ES) No. 854/2004. According to the Rules on animal diseases, public health service would be notified.

Notification system in place

Notification system is in place.

Results of the investigation including description of the positive cases and the verification of the *Trichinella* species

The presence of *Trichinella* spp. larvae hasn't been confirm in none of the analysed samples, in 2016.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.5 ECHINOCOCCOSIS

3.5.1 Echinococcus in animals

3.5.1.1 Echinococcus in animal - Cattle (bovine animals) - Slaughterhouse - animal sample - Surveillance - Official sampling - Suspect sampling

Monitoring system

Sampling strategy

Mandatory post mortem examination of carcasses and viscera of susceped animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004).

Frequency of the sampling

In case of suspicion on Echinococcus spp. - hydatid cysts has to be send to the laboratory, to confirm or to rule out the disease.

Type of specimen taken

The hydatid cysts from viscera.

Methods of sampling (description of sampling techniques)

Sampling is performed in case of suspicion on Echinococcus granulosus.

Case definition

E.granulosus positive animal is an animal in which E.granulosus cyst(s) have been confirmed.

Diagnostic/analytical methods used

Post mortem visual inspection and incision, in the context of meat inspection, according to Regulation (ES) No 854/2004. Laboratory identification and confirmation needs to be done.

Vaccination policy

Vaccination was not performed.

Other preventive measures than vaccination in place

Anti-parasitic treatments of dogs, meat inspection procedures at slaughterhouses, good management practices when handling intestines and organs of infected animals (implementation of the Regulation (ES) No 1069/2009), effective management of stray dogs.

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of *E.granulosus*, measures are taken according to Regulation (ES) No. 854/2004. According to the Rules on animal diseases, public health service is notified.

Notification system in place

Notification system is in place.

Results of the investigation including the origin of the positive animals

In 2016, *E.granulosus* has been confirmed in one case. Bovine animal was slaughtered in Italy, where Echinococcosis has been confirmed and Slovenian Authority (UVHVVR/AFSVSPP) notified about the positive case.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.5.1.2 Echinococcus in animal - Pigs - fattening pigs - Slaughterhouse - animal sample - Surveillance - Official sampling - Suspect sampling

Monitoring system

Sampling strategy

Mandatory post mortem examination of carcasses and viscera of suscepled animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004).

Frequency of the sampling

In case of suspicion on *Echinococcus* spp. - hydatid cysts has to be send to the laboratory, to confirm or to rule out the disease.

Type of specimen taken

The hydatid cysts from viscera.

Methods of sampling (description of sampling techniques)

Sampling is performed in case of suspicion on *Echinococcus granulosus*.

Case definition

E.granulosus positive animal is an animal in which *E.granulosus* cyst(s) have been confirmed.

Diagnostic/analytical methods used

Post mortem visual inspection and incision, in the context of meat inspection, according to Regulation (ES) No 854/2004. Laboratory identification and confirmation needs to be done.

Vaccination policy

Vaccination was not performed.

Other preventive measures than vaccination in place

Anti-parasitic treatments of dogs, meat inspection procedures at slaughterhouses, good management practices when handling intestines and organs of infected animals (implementation of the Regulation (ES) No 1069/2009), effective management of stray dogs.

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of *E.granulosus*, measures are taken according to Regulation (ES) No. 854/2004. According to the Rules on animal diseases, public health service is notified.

Notification system in place

Notification system is in place.

Results of the investigation including the origin of the positive animals

In 2016, *E.granulosus* has not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.5.1.3 Echinococcus in animal - Sheep and goats - Slaughterhouse - animal sample - Surveillance - Official sampling - Suspect sampling

Monitoring system

Sampling strategy

Mandatory post mortem examination of carcasses and viscera of suspected animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004).

Frequency of the sampling

In case of suspicion on Echinococcus spp. - hydatid cysts has to be send to the laboratory, to confirm or to rule out the disease.

Type of specimen taken

The hydatid cysts from viscera.

Methods of sampling (description of sampling techniques)

Sampling is performed in case of suspicion on Echinococcus granulosus.

Case definition

E.granulosus positive animal is an animal in which E.granulosus cyst(s) have been confirmed.

Diagnostic/analytical methods used

Post mortem visual inspection and incision, in the context of meat inspection, according to Regulation (ES) No 854/2004. Laboratory identification and confirmation needs to be done.

Vaccination policy

Vaccination was not performed.

Other preventive measures than vaccination in place

Anti-parasitic treatments of dogs, meat inspection procedures at slaughterhouses, good management practices when handling intestines and organs of infected animals (implementation of the Regulation (ES) No 1069/2009), effective management of stray dogs.

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of E.granulosus, measures are taken according to Regulation (ES) No. 854/2004. According to the Rules on animal diseases, public health service is notified.

Notification system in place

Notification system is in place.

Results of the investigation including the origin of the positive animals

In 2016, E.granulosus has not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.6 RABIES

3.6.1 Lyssavirus (rabies) in animals

3.6.1.1 Lyssavirus (rabies) in animal - Foxes - animal sample

Monitoring system

Sampling strategy

Surveillance was (is) performed in accordance with a multi-annual program for eradication of rabies 2014 – 2019.

Frequency of the sampling

Control and eradication of rabies is performed in accordance with the program drawn up by the UVHVVR/AFSVSPP, which is approved and co-funded by the European Commission (Multi-annual program for eradication of rabies 2014 – 2019).

Type of specimen taken

According to the annual programme prepared by the UVHVVR/AFSVSPP, the emphasis was given to testing of suspect or indicator animals (animals that show clinical signs or abnormal behaviour suggestive of rabies, animals found dead, road-kills and animals involved in human exposure).

Methods of sampling (description of sampling techniques)

Tests for the presence of rabies virus in wild animals are carried out under the multi-annual program for the eradication of rabies (2014-2019). In accordance with the annual decree, killed foxes were examined in accordance with the program UVHVVR/AFSVSPP, and all found dead and run over foxes collected by veterinary hygienic service (VHS), in 2016. Foxes sent in the investigation were analysed for the presence of antibodies, to determine antibody titer and take away their lower jaw to investigate the presence of biomarker and the determination of the age. Number of killed foxes, to be sent to the investigation were determined for each of the Regional Association of managers of hunting grounds (OZUL) according to the annual culling. Other animals: In case of suspicion of disease and if animal dies due to condition which involves signs of neurological disease, head or whole body must be sent for testing. Samples are sent to National veterinary institute by veterinarian organisation.

Case definition

Any animal infected with the rabies virus species (OIE, 2013a).

Diagnostic/analytical methods used

For the purposes of rabies confirmation, the direct Immunofluorescence Test (FAT), virus isolation and determination of virus isolates are used.

Vaccination policy

Vaccination of dogs: dogs must be vaccinated against rabies for the first time at the age of 12 to 16 weeks. The second and third vaccination should be done at intervals up to 12 months of a previous vaccination, but two successive vaccines should not be carried out in the same calendar year. Any further vaccination is carried out in accordance with the manufacturer's instructions. Oral vaccination of foxes: every year UVHVVR/AFSVSPP conducts oral rabies vaccination (ORV) of foxes, which represents the only effective method of eradication of rabies in wild animals. ORV is implemented since 1988. Annually, approx. 900 000 baits are used in two campaigns over the whole territory of Slovenia - spring (May, June) and autumn (October, November). From 1995, ariplanes are used for the distribution of baits. (For monitoring the effectiveness of ORV foxes (4 foxes per 100 km²) healthy hunted animals were tested for the presence of antibodies. Their lower jaws were tested for the presence of biomarker and age determination.)

Control program/mechanisms

The control program/strategies in place

Oral vaccination of foxes; checking the success of vaccination of foxes; regular vaccination of dogs; compulsory labeling (chip) and registration of dogs; regulatory documents accompanying the animals movements; veterinary organisation should the suspicion of rabies immediately inform to the UVHVVR/AFSVSPP. The control program/strategies in place: identification and registration of dogs; compulsory vaccination of dogs; measures in case of suspicion of disease; measures on suspicion and confirmation of the disease.

Measures in case of the positive findings or single cases

When rabies is confirmed, measures according to Rules on the detection, prevention of spreading and eradication of rabies apply. Immediately upon notification of suspected disease in a domestic animal the authorised veterinary organisation shall order: isolation of animal showing clinical signs of disease: dogs for 10 days, other domestic animals for 20 days; in case of death of the animal, its head or entire cadaver shall be subjected to investigation; a 10-day observation of clinically healthy dogs and cats, which have bitten a person; in this period, the authorised veterinary organisation shall carry out three clinical examinations, namely, on day one, five and ten following the bite. The following measures shall also apply in the infected area during the presence of disease: confinement and isolation of animals under suspicion of disease; unvaccinated animals having been in contact with rabid animal shall be killed; unvaccinated animals under suspicion of having been in contact with rabid animal shall be subjected to preventive vaccination in accordance with the vaccine manufacturer's instructions; unvaccinated dogs and cats under suspicion of having been in contact with rabid animal shall be killed; animals, the vaccination whereof against rabies has been proven, and which have been in contact with rabid animal, shall be subjected to the determination of protective titre of antibodies against rabies; when the titre is less than 0.5 I.E., the animal shall be revaccinated and subjected to a three-month veterinary observation; in case that animal owner refuses revaccination or a three-month veterinary observation, such an animal shall be killed; disinfection of facilities, where rabid animal has been kept.

Notification system in place

Notification system is in place. According to national legislation (Rules on animal diseases) notification of rabies is mandatory. All necessary steps shall immediately be taken in order to confirm the disease or to rule out the suspicion thereof. When the presence of a rabies is suspected, the veterinary organisation shall immediately inform UVHVVR/AFSVSPP of the suspected disease. The designated laboratory shall immediately inform the UVHVVR/AFSVSPP on the results of diagnostic test. UVHVVR/AFSVSPP officially confirm the presence of disease. In the case of confirmation of rabies, UVHVVR/AFSVSPP shall notify also the competent public health service. UVHVVR/AFSVSPP also notifies the Commission and other member states through ADNS system.

Results of the investigation including the origin of the positive animals

Results of the investigation are in the reporting table.

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

Epizootic situation has improved since the introduction of oral vaccination of foxes. Dog-mediated rabies was eradicated soon after World War II, when compulsory vaccination of dogs against rabies came into force (1947). Since that time vaccination of all dogs against rabies has been compulsory. The last case of human rabies was in 1950. There is possibility of importation of human cases from endemic countries in spite of the fact, that preexposure vaccination is available for foreign travellers.

Additional information

Important! Within this file, control of rabies for other animal species is also described. Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.7 Q-FEVER

3.7.1 Coxiella (Q-fever) in animals

3.7.1.1 C. burnetii in animal - Cattle (bovine animals) - animal sample

Monitoring system

Sampling strategy

Passive monitoring was performed.

Frequency of the sampling

In 2016, serological testing for detection of antibodies to *Coxiella burnetii* was carried out because of the demands of the market (licensing procedures, fairs, export,...). Sampling is done also in the case of suspicion.

Type of specimen taken

Blood.

Methods of sampling (description of sampling techniques)

Blood samples shall be taken aseptically by venepuncture. Blood shall be taken from the jugular vein or median caudal vein and decanted into sterile test tubes. After sampling, the test tubes intended for obtaining the serum shall be kept at room temperature. On finished coagulation, the test tubes shall be refrigerated at +4 C. Blood samples shall be kept chilled during transport (cooling container) and delivered to the testing laboratory within 48 hours of sampling.

Case definition

Identification of IgG antibodies against *Coxiella burnetii*.

Diagnostic/analytical methods used

Serology: OIE Manual, 5th ed., 2004. ELISA for antibody detection.

Vaccination policy

No vaccination program.

Other preventive measures than vaccination in place

Persons who in the course of activities coming into direct contact with animals should have basic knowledge of animal diseases, their prevention and transmission to humans and knowledge regarding regulations on the protection of animals against diseases. The operator must ensure hygiene in primary production (GAP, GHP) and record-keeping.

Control program/mechanisms

The control program/strategies in place

Registration and/or approval of holdings, food business operators, transporters, collection centres and dealers, which are subjected to veterinary checks; Identified and registered animals; Regular official veterinary checks on holdings; Movements of animals accompanied by prescribed documents; Veterinary referral form to accompany sick animals and animals coming from holdings with an unverified or suspect epizootiological situation; notification of positive cases to OU UVHVVR/AFSVSPP. Obligatory notification between veterinary and health service in case of zoonoses occurrence.

Measures in case of the positive findings or single cases

In case of positive findings measures are performed. They may be introduced also after the public health service has notified the veterinary service of an onset of clinical signs of disease in humans. Depending on the nature of disease, or where necessary, UVHVVR/AFSVSPP and public health service shall conduct the epidemiological and/or epizootiological investigations. Based on the investigation results, UVHVVR/AFSVSPP may institute one or more measures in animal husbandry. Measures may be introduced after the public health service has notified the veterinary service of an onset of clinical signs of disease in humans. Depending on the nature of disease, or where necessary, UVHVVR/AFSVSPP and public health service shall conduct the epidemiological and/or epizootiological investigations. Based on the investigation results, UVHVVR/AFSVSPP may institute one or more following measures in animal husbandry: providing for potable water that is fit for consumption, water for watering, and feed, providing and maintaining the required conditions of hygiene in animal accommodation facilities and in other premises intended for keeping animals, providing for hygiene at parturition and during milking, providing for veterinary order in public places intended for animal assembly, in the means of transport intended for the transport of animals, products, raw materials, foodstuffs, waste, and animal feed, in pens, on pastures and in facilities intended for animal assembly, animal slaughter and for collecting, treating, processing and storing raw materials, products, foodstuffs, waste, and animal feed providing for food safety and for compliance with the veterinary conditions for their production and circulation, preventing the introduction of disease agents into animal accommodation facilities, implementing veterinary measures in animal accommodation facilities, handling dead animal carcasses and other waste, waste waters, animal faeces and urine in compliance with the required methods, providing for preventive disinfection, disinsectisation and deratisation in facilities, on public surfaces and in the means of transport, other recovery measures.

Notification system in place

Notification system is in place. At the presence of a contagious disease or signs giving rise to suspicion that an animal has fallen sick or died of a contagious disease, the animal keeper shall immediately notify thereof the veterinary organisation. A veterinary organisation shall notify of disease the relevant UVHVVR/AFSVSPP Regional Office in cases only, where the diagnostic test results have confirmed the presence of disease. At a suspected or confirmed presence of disease, the competent public health services shall be notified as well.

Results of the investigation including the origin of the positive animals

Results of the investigation are in the reporting tables.

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

National evaluation of the recent situation in stable (no outbreaks within animal or within human population in the previous year).

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

Q fever is a rare zoonosis in last years, except in year 2007 when outbreak was detected.

Additional information

Important! Within this file, control of Q fever for other animal species is also described. Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.8 CYSTICERCOSIS, TAENIOSIS

3.8.1 Cysticerci in animals

3.8.1.1 Cysticerci in animal - Cattle (bovine animals) - Slaughterhouse - animal sample - Surveillance - Suspect sampling

Monitoring system

Sampling strategy

Mandatory post mortem examination of carcasses and viscera of suscepled animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004).

Frequency of the sampling

Sampling is performed in case of specific pathological changes, typical for cisticercosis, to confirm or to rule out the suspicion on cysticercosis. The epidemiological unit is the animal.

Type of specimen taken

Post mortem examination is performed according to Regulation (ES) No 854/2004. Specific muscles and viscera are examined and incised. Sample of fresh meat and/or viscera with specific changes typical for cysticercosis on it are/is type of specimen for laboratory confirmation.

Methods of sampling (description of sampling techniques)

Sampling is performed in case of suspicion on cysticercosis. (Pathologically changed part of an organ is cut to sent to the laboratory to confirm or to rule out cysticercosis.)

Case definition

Positive animal is an animal in which cysticerci have been detected.

Diagnostic/analytical methods used

Post mortem visual inspection and incision, in the context of meat inspection, according to Regulation (ES) No 854/2004. Laboratory identification and confirmation needs to be done.

Vaccination policy

Vaccination was not performed.

Other preventive measures than vaccination in place

Compulsory meat inspection.

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of cysticercosis, measures are taken according to Regulation (ES) No. 854/2004. According to the Rules on animal diseases, public health service is notified.

Notification system in place

Notification system is in place.

Results of the investigation including the origin of the positive animals

In 2016, *Cysticercus bovis* has been confirmed in one case.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.8.1.2 Cysticerci in animal - Pigs - fattening pigs - Slaughterhouse - animal sample - Surveillance - Suspect sampling

Monitoring system

Sampling strategy

Mandatory post mortem examination of carcasses and viscera of suspected animals whose meat is placed on the market for human consumption (Regulation (ES) No. 854/2004).

Frequency of the sampling

Sampling is performed in case of specific pathological changes, typical for cysticercosis, to confirm or to rule out the suspicion on cysticercosis. The epidemiological unit is the animal.

Type of specimen taken

Post mortem examination is performed according to Regulation (ES) No 854/2004. Specific muscles and viscera are examined and incised. Sample of fresh meat and/or viscera with specific changes typical for cysticercosis on it are/is type of specimen for laboratory confirmation.

Methods of sampling (description of sampling techniques)

Sampling is performed in case of suspicion on cysticercosis. (Pathologically changed part of an organ is cut to sent to the laboratory to confirm or to rule out cysticercosis.)

Case definition

Positive animal is an animal in which cysticerci have been detected.

Diagnostic/analytical methods used

Post mortem visual inspection and incision, in the context of meat inspection, according to Regulation (ES) No 854/2004. Laboratory identification and confirmation needs to be done.

Vaccination policy

Vaccination was not performed.

Other preventive measures than vaccination in place

Compulsory meat inspection.

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of confirmation of cysticercosis, measures are taken according to Regulation (ES) No. 854/2004. According to the Rules on animal diseases, public health service is notified.

Notification system in place

Notification system is in place.

Results of the investigation including the origin of the positive animals

In 2016, *Cysticercus bovis* has been confirmed in one case.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR/AFSVSPP website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.9 VTEC

3.9.1 Escherichia coli in foodstuffs

3.9.1.1 Verotoxigenic E. coli (VTEC) in food - Meat, mixed meat - meat preparation - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions.

Definition of positive finding

A sample in which E.coli strain producing VT or possessing vtx genes have been isolated. In case of positive result for food items, for which no criteria are set in the Regulation No 2073/2005, the assessment of food safety was prepared, in accordance with the provision of Article 14 of Regulation (ES) No 178/2002.

Diagnostic/analytical methods used

ISO/TS 13136:2012.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 34 samples of meat preparations (mixed meat) were sampled and analysed within monitoring programme. In 2 samples VTEC other than O157, O26, O103, O111 and O145, with vtx2 genes, has been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.9.1.2 Verotoxigenic E. coli (VTEC) in food - Meat, mixed meat - meat products - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions.

Definition of positive finding

A sample in which E.coli strain producing VT or possessing vtx genes have been isolated. In case of positive result for food items, for which no criteria are set in the Regulation No 2073/2005, the assessment of food safety was prepared, in accordance with the provision of Article 14 of Regulation (ES) No 178/2002.

Diagnostic/analytical methods used

ISO/TS 13136:2012.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 60 samples of ready to eat meat products were sampled and analysed, within monitoring programme. Presence of VTEC has not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.9.1.3 Verotoxigenic E. coli (VTEC) in food - Meat, mixed meat - minced meat - intended to be eaten cooked - chilled - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions.

Definition of positive finding

A sample in which E.coli strain producing VT or possessing vtx genes have been isolated. In case of positive result for food items, for which no criteria are set in the Regulation No 2073/2005, the assessment of food safety was prepared, in accordance with the provision of Article 14 of Regulation (ES) No 178/2002.

Diagnostic/analytical methods used

ISO/TS 13136:2012.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 26 samples of minced meat were sampled and analysed within monitoring programme. Serogroup O157 with vtx2 genes has been confirmed in 1 sample. In 1 another sample VTEC other than O157, O26, O103, O111 and O145 with vtx2 genes, has been confirmed.

Additional information

3.9.1.4 Verotoxigenic E. coli (VTEC) in food - Milk from other animal species or unspecified - raw milk - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions.

Definition of positive finding

A sample in which E.coli strain producing VT or possessing vtx genes have been isolated. In case of positive result for food items, for which no criteria are set in the Regulation No 2073/2005, the assessment of food safety was prepared, in accordance with the provision of Article 14 of Regulation (ES) No 178/2002.

Diagnostic/analytical methods used

ISO/TS 13136:2012.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 61 samples of raw milk were sampled and analysed within monitoring programme. In 1 sample VTEC other than O157, O26, O103, O111 and O145, with vtx1 and vtx2 genes, was confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.9.1.5 Verotoxigenic E. coli (VTEC) in food - Seeds, dried - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions.

Definition of positive finding

A sample in which E.coli strain producing VT or possessing vtx genes have been isolated. In case of positive result for food items, for which no criteria are set in the Regulation No 2073/2005, the assessment of food safety was prepared, in accordance with the provision of Article 14 of Regulation (ES) No 178/2002.

Diagnostic/analytical methods used

In house real time PCR method based on ISO/TS 13136:2012.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 10 samples of seeds, dried, were sampled and analysed within monitoring programme. VTEC has not been confirmed.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

3.9.1.6 Verotoxigenic E. coli (VTEC) in food - Vegetables - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Pre cut vegetables RTE and sprouts RTE were included into monitoring programme. Sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions.

Definition of positive finding

A sample in which E.coli strain producing VT or possessing vtx genes have been isolated. In case of positive result for food items, for which no criteria are set in the Regulation No 2073/2005, the assessment of food safety was prepared, in accordance with the provision of Article 14 of Regulation (ES) No 178/2002.

Diagnostic/analytical methods used

In house real time PCR method based on ISO/TS 13136:2012.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Results of the investigation

In 2016, 70 samples of pre cut vegetables RTE and 10 samples of sprouts RTE were sampled and analysed on VTEC. Presence of VTEC has not been confirmed in any of analysed samples. Samples of sprouts were compliant with the Regulation (ES) No 2073/2005.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

4 ANTIMICROBIAL RESISTANCE INFORMATION ON SPECIFIC ZOOSES AND ZONOTIC AGENTS

4.1 SALMONELLOSIS

4.1.1 Salmonella in foodstuffs

4.1.1.1 Antimicrobial resistance in Salmonella Meat from broilers (*Gallus gallus*)

Description of sampling designs

Food business operators of the slaughterhouses take samples of broiler carcasses for Salmonella analysis in accordance with the Regulation (EC) No. 2073/2005. Within the official monitoring neck skin from broiler carcasses were tested for Salmonella spp. for verification of compliance in accordance with point 2.1.5 of Annex I to Regulation (EC) No. 2073/2005.

Stratification procedures per animal populations and food categories

Included in the monitoring were broilers coming from healthy flocks. For sampling purposes, flocks with identified zoonotic Salmonella were regarded as healthy flock.

Randomisation procedures per animal populations and food categories

Food business operator sampling was conducted in all approved slaughterhouses. In 2016, 4 slaughterhouses were approved for broilers. Three (3) approved slaughterhouses were selected for official sampling, where 99.89 % of all broilers were slaughtered.

Sampling strategy used in monitoring

Frequency of the sampling

Food business operators shall take neck skin samples for Salmonella analysis at least once a week. The day of sampling shall be changed every week. In 2016, the sampling frequency was reduced to every two weeks in all approved slaughterhouses due to satisfactory results obtained for 30 consecutive weeks. Official sampling in slaughterhouses was conducted from March to December. In each slaughterhouse 10 slaughter batches were sampled (50 samples were tested in each slaughterhouse). The month of sampling was predetermined at the official sampling plan. Official veterinarian randomly selected sampling day and slaughter batch.

Type of specimen taken

Neck skin samples

Methods of sampling (description of sampling techniques)

Neck skin samples were taken in accordance with the third paragraph of Chapter 3 of Regulation (EC) No. 2073/2005. At each sampling neck skins from a 15 poultry carcasses were sampled at random after chilling from the same slaughter batch. A piece of approximately 10 g from neck skin was obtained from each poultry carcass. The neck skin samples from 3 poultry carcasses were pooled before examination in order to form 5 pooled samples per slaughter batch. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions.

Procedures for the selection of isolates for antimicrobial testing

According to Commission Implementing Decision 652/2013/EU, the Republic of Slovenia shall include in the antimicrobial resistance testing 85 isolates of Salmonella spp. from carcasses of broilers. Isolates from the carcasses of broilers were obtained from official samples and samples taken by food business operators. Due to a small number of slaughterhouses (3 large slaughterhouses) limited number of official samples (150 samples) were taken for verification of compliance in accordance with point 2.1.5 of Annex I to Regulation (EC) No. 2073/2005. If the same serogroup of Salmonella was detected in more than one skin sample from the same slaughter batch only one isolate was serotyped and selected for AMR testing. All isolates available from neck skin samples (17) were tested for AMR Table 1.

Methods used for collecting data

In the Republic of Slovenia, all *Salmonella* spp. isolates obtained from official samples are sent to NRL for salmonella for serotyping. In addition, also laboratories testing business operators samples were requested to send *Salmonella* isolates from neck skin samples to the NRL for serotyping. In the NRL unique code is given to each *Salmonella* isolate and isolates are stored for testing for AMR. Unique code is recorded also on laboratory results. Once monthly, list of all serotyping results is submitted by NRL for *Salmonella* to Competent Authority (AFSVSPP). AFSVSPP keeps the list of all *Salmonella* isolates obtained from business operators and official samples and selects the isolates for AMR testing.

Laboratory methodology used for identification of the microbial isolates

Salmonella isolation: Amendment 1 of EN/ISO 6579-2001/Amd 1:2007. Serotyping: White-Kauffmann-Le Minor scheme.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Antimicrobials for susceptibility testing of *Salmonella* isolates: all antimicrobials listed in table 1 of Annex of Commission Implementing Decision 2013/652/EU. Isolates showed resistance against cefotaxime, ceftazidime or meropenem: the subsequent testing according to Table 4.

Cut-off values used in testing

Epidemiological cut-off values (ECOFF) as defined in Table 1 and Table 4 of Annex to Decision (EU) 652/2013

Additional information

All together, 17 *Salmonella* isolates from neck skin samples were used for AMR testing (all isolates *S. Infantis*). Eight isolates were obtained from official samples, and 9 isolates from business operator samples.

4.1.2 *Salmonella* in animals

4.1.2.1 Antimicrobial resistance in *Salmonella* Poultry, unspecified

Description of sampling designs

Target population for sampling were adult and rearing laying hen flocks, broiler flocks and fattening turkey flocks included in the *Salmonella* national control programme. Due to a limited number of official samplings in broiler flocks (10% of holdings), turkey flocks (10% of holdings) and laying hen flocks also isolates obtained by food business operators within the implementation of SNCP were used for AMR testing. Sampling was carried out in accordance with the national Rules on monitoring and control of *Salmonella* in poultry and Regulation (EU) No 517/2011 for laying hen flocks, Regulation (EU) No 200/2012 for broiler flocks and Regulation (EU) No 1190/2012 for turkey flocks.

Stratification procedures per animal populations and food categories

Laying hen flocks: SNCP includes all the adult laying-hen flocks, which are reared for the purpose of production of eggs intended for the placing on the market for public consumption, excluding the laying-hen flocks producing eggs for private domestic consumption, laying hen flocks with 50 or less birds, if eggs are intended for sale at local market and laying hen flocks at holdings producing minor quantities of table eggs (less than 350 laying hens). Broiler flocks and fattening turkey flocks: SNCP includes all broiler flocks intended for slaughter in approved slaughterhouses.

Randomisation procedures per animal populations and food categories

Laying hen flocks: all rearing and adult flocks included in SNCP were sampled by business operators. Official routine sampling was conducted in one adult flock annually at holdings keeping at least 1000 hens and in the 30% holdings with less than 1000 laying hens. Broiler flocks and fattening turkey flocks: All broiler and fattening turkey flocks leaving for slaughter were sampled by business. Official sampling was conducted in at least one flock at 10% of holdings with more than 5000 broilers or 500 fattening turkeys.

Sampling strategy used in monitoring

Frequency of the sampling

Laying hen flocks: Every consignment of day old chicks arriving to the holding in the same means of transport and from the same hatchery. Rearing period: Two weeks prior to entering the laying phase or two weeks before moving into laying unit. Production period: Every 15 weeks. Official routine sampling: one adult flock annually at holdings keeping at least 1000 hens and in the 30% holdings with less than 1000 laying hens. Broiler and fattening turkey flocks: Every flock within 3 weeks before slaughter. Official sampling: one flock of broilers at 10% of holdings.

Type of specimen taken

Day-old chicks: Internal linings of transport boxes and/or of the carcasses of the chicks found dead on arrival. Laying hens during rearing and production period: Faeces or boot swab samples. Broiler and fattening turkey flocks: Boot swab samples.

Methods of sampling (description of sampling techniques)

Samplings within the implementation of SNCP are carried out in accordance with the relevant Community legislation (CR (EU) No 517/2011 for laying hen flocks, CR (EU) No 200/2012 for broiler flocks, CR (EU) No 1190/2012 for turkey flocks).

Procedures for the selection of isolates for antimicrobial testing

Within the scope of SNCP, 271 broiler flocks tested positive for *Salmonella* spp., and 269 *Salmonella* isolates were available for further AMR testing at the NRL for *Salmonella* (266 isolates obtained from business operator samples and 3 isolates obtained from official samples). In total, 85 broiler isolates were selected for AMR-testing. At isolate selection, the following was taken into account: if the same *Salmonella* serovar was identified in a flock several times, only 1 isolate was selected, if several flocks were sampled on the same day in the same holding, and the same *Salmonella* serovar was identified in several flocks, only 1 isolate was selected for testing, where at the same holding several positive flocks in different time periods tested positive only the isolates obtained in the different quarters of the year were selected. In each quarter of the year, the number of isolates selected for AMR testing was approximately the same as % of all isolates obtained in that particular quarter of the year. Laying hen flocks and fattening turkey flocks: one isolate from each positive flock was tested for AMR (8 isolates from laying hen flocks and 9 isolates from fattening turkey flocks). If the same *Salmonella* serovar was identified in a laying hen or fattening turkey flock several times, only 1 isolate was selected for AMR testing. In case of fattening turkey flocks, 3 isolates were obtained at the sampling of birds at the age of 7-21 days as part of business operator additional controls.

Methods used for collecting data

In the Republic of Slovenia, all *Salmonella* spp. isolates are sent to NRL for salmonella for serotyping. In the NRL unique code is given to each *Salmonella* isolate and isolates are stored for testing for AMR. Unique code is recorded also on laboratory results. Once monthly, list of all serotyping results is submitted by NRL for *Salmonella* to Competent Authority (AFSVSPP). AFSVSPP keeps the list of all *Salmonella* isolates obtained from business operators and official samples and selects the isolates for AMR testing.

Laboratory methodology used for identification of the microbial isolates

Salmonella isolation: Amendment 1 of EN/ISO 6579-2001/Amd 1:2007. Serotyping: White-Kauffmann-Le Minor scheme.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Antimicrobials for susceptibility testing of *Salmonella* isolates: all antimicrobials listed in table 1 of Annex of Commission Implementing Decision 2013/652/EU. Isolates showed resistance against cefotaxime, ceftazidime or meropenem: the subsequent testing according to Table 4.

Cut-off values used in testing

Epidemiological cut-off values (ECOFF) as defined in Table 1 and Table 4 of Annex to Decision (EU) 652/2013

Additional information

Salmonella isolates selected for AMR testing: 85 isolates from broiler flocks (80 isolates of *S. Infantis*, 1 isolate of *S. Ohio*, 1 isolate of *S. Saintpaul*, 1 isolate of *Salmonella O7*, 1 isolate of *Salmonella 6,7:r:-* and 1 isolate of *S. Montevideo*); 9 isolates from turkey fattening flocks (all isolates of *S. Ohio*); 5 isolates from adult laying hen flocks (3 isolates of *S. Enteritidis*, 1 isolate of *S. Ohio*, 1 isolate of *Salmonella O7* and 1 isolate of *Salmonella I O:30*); 3 isolates from rearing laying hen flocks (1 isolate of *S. Infantis*, 1 isolate of *S. Ohio* and 1 isolate of *S. Saintpaul*).

4.2 CAMPYLOBACTERIOSIS

4.2.1 Campylobacter in animals

4.2.1.1 Antimicrobial resistance in Campylobacter Gallus gallus (fowl)

Description of sampling designs

Target population for sampling within the monitoring according to Commission Implementing Decision 652/2013/EU were broilers intended for slaughter in approved slaughterhouses in the territory of the Republic of Slovenia. Sampling was implemented in 3 slaughterhouses approved for the slaughter of poultry. Sampling plan was prepared for the entire year in advance for every particular slaughterhouse, and the number of samples was defined for each month in advance in each slaughterhouse. The prevalence of *Campylobacter jejuni* in caecal samples amounted 44 % in 2014 (173 samples were taken, and 77 isolates of *C. jejuni* were obtained). In the light of the prevalence in 2014, it was estimated that 85 *Campylobacter jejuni* isolates would be obtained from 200 caecal samples. Every caecal sample was planned to be tested for the presence of *Campylobacter* spp.

Stratification procedures per animal populations and food categories

Included in the monitoring were broilers coming from healthy broiler flocks that had from the day-old chicks up to slaughter been reared in the territory of the Republic of Slovenia. For sampling purposes, flocks with the identified zoonotic *Salmonella* were regarded as healthy flocks. Taking into account the method of rearing of broilers and the production of the meat of broilers it is estimated that most broilers slaughtered had from the day-old chicks up to slaughter been reared in the territory of the Republic of Slovenia (approx. 95 %).

Randomisation procedures per animal populations and food categories

As basis for the determination of the population under monitoring, the data on the number of broilers slaughtered in each particular slaughterhouse in 2014 were used. Three (3) approved slaughterhouses were selected for the purposes of the monitoring, where there were 33 089 146 broilers slaughtered in 2014, representing 99.89 % of all broilers slaughtered. Samples were taken in the randomly selected slaughter batches of broilers coming from healthy broiler flocks that had from the day-old chicks up to slaughter been reared in the territory of the Republic of Slovenia. Slaughter batches intended for sampling were randomly selected, taking into account that all the samplings planned were to be conducted in broiler flocks coming from different holdings or at least from different facilities (houses; epidemiological units). In case of thinning where the animals from the same flock were slaughtered in several batches the birds could be intended for sampling only once.

Sampling strategy used in monitoring

Frequency of the sampling

The prevalence of *Campylobacter jejuni* in caecal samples amounted 44 % in 2014 (173 samples were taken, and 77 isolates of *C. jejuni* were obtained). In the light of the prevalence in 2014, it was estimated that 85 *Campylobacter jejuni* isolates would be obtained from 200 caecal samples. Every caecal sample was planned to be tested for the presence of *Campylobacter* spp.

Type of specimen taken

Pooled caecal sample was taken in each slaughter batch.

Methods of sampling (description of sampling techniques)

Caecal samples were taken at the time of evisceration. A pooled caecal sample comprised the caeca of 5 broilers from the same batch, taking both caecum from every broiler. Samples were submitted to the laboratory on the day of sampling or on the subsequent day. Pending dispatch, the samples were kept refrigerated at a temperature of +4 °C (+/-2 °C). Samples were transported to the laboratory under the cold-chain maintenance regime.

Procedures for the selection of isolates for antimicrobial testing

According to Commission Implementing Decision 652/2013/EU, the Republic of Slovenia shall include in the antimicrobial resistance testing 85 isolates of *Campylobacter jejuni*. In addition, 30 *Campylobacter coli* isolates was selected for AMR testing. In order to provide for the testing of 85 isolates, obtained throughout the year, an approximately the same number of *Campylobacter jejuni* isolates was selected in each quarter of the year (taking into account the number of isolates available in each quarter). The number of isolates selected per for a particular slaughterhouse was defined in the proportion to the number of samples taken.

Methods used for collecting data

Investigations aimed at obtaining bacteria isolates were conducted by 1 official laboratory, which is also NRL for AMR. In the NRL unique code was given to each isolate and isolates were stored for testing for AMR. Unique code is recorded also on laboratory results. Once monthly, the results of isolations conducted were submitted to the Main Office of the Competent Authority (AFSVSPP), which kept the records of samplings conducted and of the investigation results and selects the isolates for AMR testing. The report for EFSA is in part prepared by the Competent Authority (AFSVSPP), including the general information and specific information concerning the sampling, and in part by the NRL on antimicrobial resistance, including the specific information concerning the antimicrobial resistance testing.

Laboratory methodology used for identification of the microbial isolates

Campylobacter: Isolation and identification of thermophilic *Campylobacter* spp.: in-house method, SOP 279 ver.4, based on ISO 10272-1: Isolation from faeces according to Technical specifications set out in Annex I of the Commission Decision 2007/516/EC (Part C, 2.1.), and identification according to ISO 10272-1. Antimicrobial susceptibility testing of bacteria – microdilution method: In-house method according to recommendations of EURL for antimicrobial resistance; based on EUCAST standard

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Antimicrobials for susceptibility testing of *Campylobacter jejuni/coli* isolates: all antimicrobials listed in table 2 of Annex of Commission Implementing Decision 2013/652/EU

Cut-off values used in testing

Epidemiological cut-off values (ECOFF) as defined in Table 2 of Annex to Decision (EU) 652/2013

Additional information

From the planned number of samples, 200 caecal samples were taken at the slaughterhouses. One caecal sample was not suitable for testing and was rejected by the laboratory. Altogether, 199 caecal samples were tested for the presence of *Campylobacter* spp. *Campylobacter jejuni* was isolated from 88 samples, *Campylobacter coli* from 26 samples and, *Campylobacter jejuni* and *Campylobacter coli* from 24 caecal samples. From a total 112 *Campylobacter jejuni* isolates obtained, 85 isolates were selected and tested for AMR. In addition, 30 *Campylobacter coli* were selected and tested for AMR.

4.3 ESCHERICHIA COLI, NON-PATHOGENIC

4.3.1 Escherichia coli, non-pathogenic in foodstuffs

4.3.1.1 Antimicrobial resistance in E.coli, non-pathogenic, unspecified Meat from broilers (Gallus gallus)

Description of sampling designs

According to Commission Implementing Decision 652/2013/EU, 150 samples of fresh broiler meat were included in the monitoring. Sampling plan was prepared for the whole year in advance, and the number of samples was defined for each month in advance, for each AFSVSPP Regional Office, and for each supermarket chain.

Stratification procedures per animal populations and food categories

Within monitoring, 150 samples of fresh broiler meat were taken and tested for the presence ESBL/AmpC producing E.coli and carbapenemase producing E.coli. The number of samples planned for sampling per each individual AFSVSPP Regional Office was defined by taking into account the number of inhabitants resident within each particular AFSVSPP Regional Office. Sampling was conducted in 8 largest supermarket chains in Slovenia. The number of samples planned for sampling per each individual supermarket chain was defined by taking into account the number of registered establishments (retail outlets) of a particular supermarket chain and by taking into account the purchasing behaviour of the inhabitants. As first, the major stores (e.g. hypermarkets, supermarkets) are selected for sampling, and subsequently also smaller ones, where necessary, so as to ensure a sufficient number of samples taken in each particular supermarket chain. Every particular store/retail outlet shall be selected for sampling only once in a year. Within the framework of this sampling, "retail" means outlets selling directly to final consumers for subsequent household consumption, including hypermarkets, supermarkets and markets, and excluding catering facilities, restaurants, wholesalers etc.

Randomisation procedures per animal populations and food categories

Samples of fresh meat were taken from the randomly selected batches of fresh broiler meat available at the retail without pre-selecting samples based on the origin of food. Within the framework of this sampling "fresh meat" means chilled meat (frozen meat is excluded). Approximately 70 % of pre-packaged meat and 30 % of non-prepackaged meat were subjected to sampling (two supermarket chains sell only pre-packaged meat). Different portions of broiler meat, with skin or without, were sampled.

Sampling strategy used in monitoring

Frequency of the sampling

Within monitoring, 150 samples of fresh broiler meat were planned to be taken. Sampling was conducted from January to December 2016. Samples were distributed evenly per months throughout the sampling year. Every month, a predetermined number of samples was taken within the territory of each AFSVSPP Regional Office and each supermarket chain. The day for sampling was selected at random by the sampler. In order to provide for the timely delivery of samples to the laboratory Fridays may be excluded as a sampling day.

Type of specimen taken

One sample of fresh broiler meat was taken from the same batch.

Methods of sampling (description of sampling techniques)

Prepackaged meat: A single random package of prepackaged meat was taken from the refrigerator. Non-prepackaged meat: Portion of meat was taken from a refrigerator containing the meat offered to final consumer. Same portions of meat (e.g. chicken wings, chicken legs..) from the same batch was taken (at least 100g). Samples were submitted to the laboratory on the day of sampling or on the subsequent day. Pending dispatch, the samples were kept refrigerated at a temperature of +4 °C (+/-2 °C). Samples were transported to the laboratory under the cold-chain maintenance regime.

Procedures for the selection of isolates for antimicrobial testing

According to Commission Implementing Decision 652/2013/EU, 150 samples of fresh broiler meat were taken and analysed for the presence ESBL/AmpC producing E.coli. In addition, voluntary monitoring for Carbapenemase-producing E.coli was conducted on all the 150 fresh meat samples taken. All 113 isolates ESBL/AmpC producing E.coli obtained from fresh broiler meat were tested according to Table 1 and Table 4 (Panel 1 and Panel 2).

Methods used for collecting data

Analysis were conducted only by 1 official laboratory, which is also NRL for AMR. In the NRL unique code was given to each isolate and isolates were stored for testing for AMR. Unique code is recorded also on laboratory results. Once monthly, the results of isolations conducted were submitted to the Main Office of the Competent Authority (AFSVSPP), which kept the records of samplings conducted and of the investigation results and selects the isolates for AMR testing. The report for EFSA is in part prepared by the Competent Authority (AFSVSPP), including the general information and specific information concerning the sampling, and in part by the NRL on antimicrobial resistance, including the specific information concerning the antimicrobial resistance testing.

Laboratory methodology used for identification of the microbial isolates

ESBL/AmpC/karbapenemaze producing E.coli: EURL Laboratory protocol for isolation of ESBL-,AmpC-and carbapenemase producing E.coli from fresh meat. Antimicrobial susceptibility testing of bacteria – microdilution method: In-house method according to recommendations of EURL for antimicrobial resistance (based on EUCAST standard)

Laboratory used for detection for resistance

Antimicrobials included in monitoring

All antimicrobials listed in Table 4 and Table 1 of Annex of Commission Implementing Decision 2013/652/EU.

Cut-off values used in testing

Epidemiological cut-off values (ECOFF) as defined in Table 1 and Table 4 of Annex to Decision (EU) 652/2013

Additional information

Altogether, 150 fresh broiler meat samples were tested for the presence of ESBL/AmpC producing E.coli and carbapenemase-producing E.coli. ESBL producing E.coli was identified in 30 samples, and in 83 samples AmpC producing E.coli was identified. Carbapenemase-producing E.coli was not detected in any sample.

4.3.2 Escherichia coli, non-pathogenic in animals

4.3.2.1 Antimicrobial resistance in E.coli, non-pathogenic, unspecified Gallus gallus (fowl)

Description of sampling designs

Target population for sampling within the monitoring according to Commission Implementing Decision 652/2013/EU were broilers intended for slaughter in approved slaughterhouses in the territory of the Republic of Slovenia. Sampling was implemented in 3 slaughterhouses approved for the slaughter of poultry. Sampling plan was prepared for the entire year in advance for every particular slaughterhouse, and the number of samples was defined for each month in advance in each slaughterhouse. Within monitoring, 150 caecal samples were planned to be tested for the presence of commensal E.coli, ESBL/AmpC - producing E.coli and carbapenemase-producing E.coli was planned.

Stratification procedures per animal populations and food categories

Included in the monitoring were broilers coming from healthy broiler flocks that had from the day-old chicks up to slaughter been reared in the territory of the Republic of Slovenia. For sampling purposes, flocks with the identified zoonotic Salmonella were regarded as healthy flocks. Taking into account the method of rearing of broilers and the production of the meat of broilers it is estimated that most broilers slaughtered had from the day-old chicks up to slaughter been reared in the territory of the Republic of Slovenia (approx. 95 %).

Randomisation procedures per animal populations and food categories

As basis for the determination of the population under monitoring, the data on the number of broilers slaughtered in each particular slaughterhouse in 2014 were used. Three (3) approved slaughterhouses were selected for the purposes of the monitoring, where there were 33 089 146 broilers slaughtered in 2014, representing 99.89 % of all broilers slaughtered. Samples were taken in the randomly selected slaughter batches of broilers coming from healthy broiler flocks that had from the day-old chicks up to slaughter been reared in the territory of the Republic of Slovenia. Slaughter batches intended for sampling were randomly selected, taking into account that all the samplings planned were to be conducted in broiler flocks coming from different holdings or at least from different facilities (houses; epidemiological units). In case of thinning where the animals from the same flock were slaughtered in several batches the birds could be intended for sampling only once.

Sampling strategy used in monitoring

Frequency of the sampling

Within monitoring, 150 caecal samples were planned to be tested. Sampling was conducted from January to December 2016. Samples were distributed evenly per months throughout the sampling year. A total number of samples to be taken in a particular approved slaughterhouse was determined in proportion with the broiler slaughter percentage. Sampling was conducted on a single slaughter day, or on several slaughter days, depending on the number of samples planned to be taken. The day for sampling was selected at random by the official veterinarian. In order to provide for the timely delivery of samples to the laboratory (no later than on the day following the sampling) and for the rationalisation of sample transport costs, several slaughter batches were allowed to be sampled on a particular slaughter day, but not more than three (3). Likewise, sampling was not conducted on Fridays as the timely transport of samples to the laboratory could not be guaranteed.

Type of specimen taken

Pooled caecal sample was taken in each slaughter batch.

Methods of sampling (description of sampling techniques)

Caecal samples were taken at the time of evisceration. A pooled caecal sample comprised the caeca of 5 broilers from the same batch, taking both caecum from every broiler. Samples were submitted to the laboratory on the day of sampling or on the subsequent day. Pending dispatch, the samples were kept refrigerated at a temperature of +4 °C (+/-2 °C). Samples were transported to the laboratory under the cold-chain maintenance regime.

Procedures for the selection of isolates for antimicrobial testing

According to Commission Implementing Decision 652/2013/EU, the Republic of Slovenia shall include in the antimicrobial resistance testing 85 isolates of the commensal E.coli. For the specific monitoring of ESBL – or AmpC or carbapenemase producing E.coli 150 samples shall be analysed. In order to provide for the testing of 85 isolates of commensal E.coli, obtained throughout the year, an approximately the same number of E.coli isolates was selected in each quarter of the year (taking into account the number of isolates available in each quarter). The number of isolates selected per for a particular slaughterhouse was defined in the proportion to the number of samples taken. From the planned number of samples (150), 149 samples were tested for the presence of ESBL-, and AmpC-, and carbapenemase producing E.coli. One caecal sample was not suitable for testing and was rejected by the laboratory. All 139 isolates ESBL/AmpC producing E.coli obtained from caecal samples were tested according to Table 1 and Table 4 (Panel 1 and Panel 2).

Methods used for collecting data

Investigations aimed at obtaining bacteria isolates were conducted by 1 official laboratory, which is also NRL for AMR. In the NRL unique code was given to each isolate and isolates were stored for testing for AMR. Unique code is recorded also on laboratory results. Once monthly, the results of isolations conducted were submitted to the Main Office of the Competent Authority (AFSVSPP), which kept the records of samplings conducted and of the investigation results and selects the isolates for AMR testing. The report for EFSA is in part prepared by the Competent Authority (AFSVSPP), including the general information and specific information concerning the sampling, and in part by the NRL on antimicrobial resistance, including the specific information concerning the antimicrobial resistance testing.

Laboratory methodology used for identification of the microbial isolates

ESBL/AmpC/karbapenemaze producing E.coli: EURL Laboratory protocol for isolation of ESBL-,AmpC-and carbapenemase producing E.coli from caecal samples. Antimicrobial susceptibility testing of bacteria – microdilution method: In-house method according to recommendations of EURL for antimicrobial resistance (based on EUCAST standard). Commensal E.coli is isolated on differential media (Drigalski agar and Uriselect agar) according to In house protocol. Identification is performed by classical biochemical method and confirmed by MALDI-TOF system.

Laboratory used for detection for resistance

Antimicrobials included in monitoring

Commensal E.coli: Antimicrobials for susceptibility testing of Salmonella isolates from poultry: all antimicrobials listed in table 1 of Annex of Commission Implementing Decision 2013/652/EU. Isolates showed resistance against cefotaxime, ceftazidime or meropenem: the subsequent testing according to Table 4. ESBL – or AmpC or carbapenemase producing E.coli: all antimicrobials listed in table 1 and Table 4 of Annex of Commission Implementing Decision 2013/652/EU.

Cut-off values used in testing

Epidemiological cut-off values (ECOFF) as defined in Table 1 and Table 4 of Annex to Decision (EU) 652/2013.

Additional information

From the planned number of samples, 150 caecal samples were taken at the slaughterhouses. One caecal sample was not suitable for testing and was rejected by the laboratory. Altogether, 149 caecal samples were tested for the presence of commensal E.coli, ESBL-, AmpC- and carbapenemase-producing E.coli. Commensal E.coli was identified in 149 samples, and 85 isolates were selected and tested for AMR. ESBL producing E.coli was identified in 47 samples, and in 92 samples AmpC producing E.coli was identified. Carbapenemase-producing E.coli was not detected in any sample.

5 INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS

5.1 CRONOBACTER

5.1.1 Cronobacter in foodstuffs

5.1.1.1 Cronobacter in food - Foodstuffs intended for special nutritional uses - food sample - Surveillance - Official sampling - Objective sampling - n=1

Monitoring system

Sampling strategy

Joint national monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99. Monitoring program in part, which is in the competence of the Health Inspectorate of the Republic of Slovenia, includes food groups in which the presence of zoonotic agent posing the greatest risk and where probability of occurrence occurs due to improper implementation of the manufacturing and hygiene practices, taking into account the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005 and the results of official control from the previous years, with a purpose to check the compliance of foodstuffs and compliance of food businesses with food law. Samples were taken by inspectors as part of official control at retail and at wholesale. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004 but taking into account definitions from EFSA Manuals term surveillance as sampling context was used because in case of a positive result, which represents the non-compliance, measures are implemented. Objective sampling was applied.

Frequency of the sampling

At retail

Sampling was performed once a year.

Type of specimen taken

At retail

Infant formula - dried - intended for infants below 6 months and dried dietary foods for special medical purposes intended for infants below 6 months of age were sampled.

Methods of sampling (description of sampling techniques)

At retail

Samples were taken randomly from the available part of the consignment. A single sample was comprised of minimum 1 prepacked unit of the product weighed at least 200g. Samples were delivered to the official laboratory taking into account the manufacturer's storage instructions.

Definition of positive finding

At retail

Presence of Cronobacter spp. (Enterobacter sakazakii) in 10g.

Diagnostic/analytical methods used

At retail

ISO/TS 22964:2006 Cronobacter spp. (Enterobacter sakazakii)

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Registration of establishments and official control.

Measures in case of the positive findings or single cases

Informing the owner of the sample, monitoring of the voluntary actions taken by the responsible food business operator, enforcement of necessary actions (withdrawal/recall, consumer notice), informing competent authority in the country of producer and other countries flagged for action through RASFF system.

Notification system in place

Food business operators are obliged to inform competent authority in case they are informed about the presence of a zoonotic agent in food under their control, which pose a risk to the health of consumers and to take measures in accordance with the Regulation (ES) 178/2002. Exchange of information between competent authorities through the RASFF system.

Results of the investigation

In 2016 Cronobacter spp. (Enterobacter sakazakii) was not detected in any sample.

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

Since 2010, the presence of the zoonotic agent was not found in any sample. Situation concerning Cronobacter spp. (Enterobacter sakazakii) is favourable.

5.2 HISTAMINE

5.2.1 Histamine in foodstuffs

5.2.1.1 Histamine in food - Fishery products, unspecified - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Food groups that were included into monitoring programme and other sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control in the retail (regional units UVHVVR) and border inspection post Koper. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVVR, taking into account the rules of Commission Regulation (ES) 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for histamine has been exceeded, for food categories for which harmonised food safety criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

HPTLC. In case of positive result, confirmation is done by HPLC method.

Preventive measures in place

GMP, GHP, HACCP

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures would be taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 19 food samples were taken and analysed on histamine, within monitoring programme. All analysed samples were compliant with the Regulation (ES) No. 2073/2005.

5.3 STAPHYLOCOCCAL ENTEROTOXINS

5.3.1 Staphylococcal enterotoxins in foodstuffs

5.3.1.1 Staphylococcal enterotoxins in food - Cheeses, made from unspecified milk or other animal milk - food sample - Official sampling - Objective sampling

Monitoring system

Sampling strategy

National monitoring programme on zoonosis is prepared every year. Programme is prepared according to Directive (ES) No 2003/99, taking also into account the rules of the Commission Regulation on microbiological criteria for foodstuffs (EC) No. 2073/2005.

Frequency of the sampling

Sampling was distributed evenly throughout the sampling period.

Type of specimen taken

Food of animal and non animal origin was included into monitoring programme. Food groups that were included and other sampling details are set in the table, which is part of the reporting process.

Methods of sampling (description of sampling techniques)

Samples were taken as part of an official control. Sampling covered whole territory of the Republic of Slovenia. Sampling procedure was performed according to the Instruction, prepared by the UVHVR, taking into account the rules of Commission Regulation (ES) No 2073/2005 and other Community legislation. Objective sampling was applied. The range of food sampling covered food of domestic and foreign origin. Samples were delivered to the official laboratories in the shortest time possible, under cold chain conditions or in accordance with the manufacturer's storage instructions. Official sampling suits the definition for monitoring, set in the Regulation (EC) No. 882/2004. Taking into account definitions from EFSA Manuals, term surveillance as sampling context was used, because in case of non-compliance measures are implemented.

Definition of positive finding

The sample/batch is non compliant if criterion for staphylococcal enterotoxin has been exceeded, for food categories for which harmonised criteria are set in the Regulation (EC) No 2073/2005.

Diagnostic/analytical methods used

Enzyme-linked immunosorbent assay (ELISA)

Preventive measures in place

Control program/mechanisms

The control program/strategies in place

Official control.

Recent actions taken to control the zoonoses

Official control.

Measures in case of the positive findings or single cases

In case of non-compliance, measures were taken in accordance with the Community legislation.

Notification system in place

RASFF notification, if appropriate.

Results of the investigation

In 2016, 26 food samples were taken and analysed on staphylococcal enterotoxin, within monitoring programme. Taking into account criteria set in the Regulation (ES) No 2073/2005, all samples were compliant.

Additional information

Additional information is available in the national Monitoring programme of zoonoses and zoonotic agents for 2016 and Annual reports on zoonoses and zoonotic agents, published on UVHVVR website: http://www.uvhvvr.gov.si/si/delovna_podrocja/zivila/zoonoze/

6 FOODBORNE OUTBREAKS

Foodborne outbreaks are incidences of two or more human cases of the same disease or infection where the cases are linked or are probably linked to the same food source. Situation, in which the observed human cases exceed the expected number of cases and where a same food source is suspected, is also indicative of a foodborne outbreak.

6.1 Outbreaks

6.1.1 Foodborne outbreaks

System in place for identification, epidemiological investigations and reporting of foodborne outbreaks

System for identification of foodborne outbreaks is: mandatory and national. It covers: family, general, national and international outbreaks, and all classes of microbiological agents and histamin poisoning as well. An outbreak of foodborne illness is defined as two or more linked cases of the same illness or the situation, where the observed number of cases exceeds the expected number. Outbreaks of foodborne infections are notifiable by national Law on Infectious Diseases, issued in 1995, revised in 2006. Public health professionals are requested to report regularly all investigated outbreaks of infectious intestinal diseases to the NIJZ (National Institute of Public Health Slovenia).

Description of the types of outbreaks covered by the reporting:

The outbreak took place in the nursing home. Of the 266 residents and 125 employees, 37 (13,9%) residents development illness and no employees got sick. Symptoms were mild, watery diarrhea, abdominal bloating and distension, two residents vomited. The duration of symptoms lasted averaged about 12 hours. No one required hospital admission. Of the 2 symptomatic patients and 4 asymptomatic employees who submitted specimens, cultures for bacterial and viral agents were negative. *Staphylococcus aureus* was isolated from the throat swab of three kitchen workers, with no enterotoxin production. Sampling of surfaces detected no pathogens. No pathogen was isolated from the food samples, the only link between the human cases and the food, was that only the cases in outbreak consumed mushy food. The foodborne outbreak was classified as possible food-borne outbreak. The waterborne outbreak affected 355 people (172 males, 183 females) in small municipality in an area with 800 residents. The Public Health Unit collected information by phone. The line list included demographic data, the information about illness onset and symptoms, drinking water consumption. Stool samples were obtained from 33 of 355 patients who had gastrointestinal symptoms. The symptoms were typical for gastroenteritis, predominantly diarrhea, vomiting, many cases had fever, nausea, cramps. The samples were analyzed for the presence of salmonella, shigella, *Yersinia*, *Campylobacter*, *E.coli*, adeno, rota and norovirus, cryptosporidium, *Entamoeba histolytica*, *Giardia*. From the stool sample of one case adenovirus was confirmed and *E.coli* in another person, no other pathogens were isolated. For microbiological investigation, five fresh water samples were collected. *E.coli* was recovered from one tap water sample. Typing of bacterial isolates *E.coli* from patients and the environment did not confirmed identical strain and the isolates had different pattern. Although the exact mechanism for contamination remained unknown, investigation of the water system suggested several possibilities. It is possible that there was no continuous source of the water distribution system contamination, but incidental contamination with coliforms. The ground water system was not chlorinated sporadic due to defect at water treatment plant.

Description of the types of outbreaks covered by the reporting:

Household outbreak involved 5 persons (3 adult and 2 children). From the stool sample of one family member *Campylobacter jejuni* was identified. The other members of the household were classified as probable cases. The cases main symptoms were diarrhea and abdominal pain. Nausea and fever were less frequent. No one was admitted to hospital. The vehicle of the causative agent for the index case was not identified. Differences in the time occurring between infections of household members indicate the importance of person to person transmission of *Campylobacter jejuni*.

Description of the types of outbreaks covered by the reporting:

The first foodborne outbreak involved persons from several settings (factories), where the food was served. The food was prepared in the restaurant and took away. 36 out of 131 exposed people (who ate meal) went ill. Symptoms appeared within 9 to 32 hours after ingesting the meal and included vomiting, and diarrhea. Most people make a full recovery in 4 to 100 hours, with no lasting side effects, no hospitalisation, no death. From stool samples of patients no etiologic agent was confirmed. *Staphylococcus aureus* was isolated from the throat swab of one kitchen worker. The *S. aureus* isolate was able to produce enterotoxin type A and C. The food sample beans contained *S. aureus*, the isolate was not able to produce enterotoxins. From the food sample sausage *B. cereus* was isolated. Sampling of surfaces also detected *B. cereus*. The cases in the outbreak were linked to one or several possible food vehicles that were consumed by most of the cases but no pathogen was isolated from the human cases and no epidemiological analyses were done. The foodborne outbreak was classified as possible food borne outbreak.

Description of the types of outbreaks covered by the reporting:

The third foodborne outbreak was histamine poisoning. 6 persons out of 20 who ate meal at workplace catering went ill. 10 to 60 minutes after ingestion of tuna salad the cases developed flushing, hives, itching, red rash, nausea, vomiting, light headedness and diarrhea. The histamine analysis (IM/HPLC) of the suspected tuna salad determined more 20 mg/kg of histamine. The typical clinical picture and epidemiological investigation showed that it was most likely histamine poisoning on histamine intolerant individuals. The Food Inspection Agency recalled the cans of brand tuna used for tuna salad. Restaurant 2: 5 persons out of 18 who ate tuna steaks at restaurant went ill. The symptoms developed tuna salad of tuna steaks: tingling sensation, skin rash and hypotension, headaches and flushing, vomiting and diarrhea. Some individuals visited emergency medical treatment, no one required hospital treatment. The histamine analysis (IM/HPLC) of the suspected tuna steaks determined less 20 mg/kg of histamine. The typical clinical picture and epidemiological investigation showed that it was most likely histamine poisoning on histamine intolerant individuals. The restaurant owner recalled the remaining frozen tuna steaks. Restaurant 3: 3 persons who ate tuna steaks at restaurant went ill. The symptoms developed rapidly after ingestion of tuna steaks: tingling sensation, skin rash and hypotension, headaches and flushing, vomiting and diarrhea. Some individuals visited emergency medical treatment, no one required hospital treatment. The histamine analysis (IM/HPLC) of the suspected tuna steaks determined less 20 mg/kg of histamine. The typical clinical picture and epidemiological investigation showed that it was most likely histamine poisoning on histamine intolerant individuals. The restaurant owner recalled the remaining frozen tuna steaks. Restaurant 4: 2 persons who ate tuna salad some minutes (30 min) after ingestion of tuna salad developed the symptoms of scombroid intoxication. The food sample was not available, and the histamine was not determined. The typical clinical picture and epidemiological investigation showed that it was most likely histamine poisoning on histamine intolerant individuals.

National evaluation of the reported outbreaks in the country:

Trends in numbers of outbreaks and numbers of human cases involved

From 2010 to 2016, 6 foodborne outbreaks agent was not identified. resulting 654 cases of illness, 5 hospitalization and no death.

Trends in numbers of outbreaks and numbers of human cases involved

From 2010 to 2016, only one foodborne outbreaks caused by *Campylobacter jejuni* were reported, resulting 5 cases of illness, no hospitalization and no death.

Trends in numbers of outbreaks and numbers of human cases involved

From 2010 to 2016, two foodborne outbreaks caused by *Bacillus cereus* were reported, resulting 46 cases of illness, 1 hospitalization and no death.

Trends in numbers of outbreaks and numbers of human cases involved

From 2010 to 2016, 6 foodborne outbreaks caused by Histamine were reported, resulting 21 cases of illness, 1 hospitalization and no death.

Relevance of the different causative agents, food categories and the agent/food category combinations

The pathogen-food category responsible for most outbreaks in 2016 with a single confirmed etiologic agent were scombroid toxin (histamine) in tuna steaks and tuna salad.

Relevance of the different type of places of food production and preparation in outbreaks

Among outbreaks in 2016 restaurant were most commonly reported as the location where was prepared.

Control measures or other actions taken to improve the situation

Encouraging proper hand washing procedures and facilities, encouraging food workers not to work when they are ill, for example by providing paid sick leave, keep food at safe temperatures, clean kitchen surfaces after preparing foods, keep raw foods separate from cooked and ready to eat food at all times, water quality monitoring, routine chlorination of water, improved training of waterworks personnel.

Control measures or other actions taken to improve the situation

Encouraging proper hand washing procedures and facilities, keep food at safe temperatures, clean kitchen surfaces after preparing foods, keep raw foods separate from cooked and ready to eat food at all times.

Control measures or other actions taken to improve the situation

Encouraging proper hand-washing procedures and facilities, encouraging food workers not to work when they are ill, for example by providing paid sick leave, keep food at safe temperatures, clean kitchen surfaces after preparing foods, keep raw foods separate from cooked and ready to eat food at all times.

Control measures or other actions taken to improve the situation

Encouraging proper hand washing procedures and facilities, encouraging food workers not to work when they are ill, for example by providing paid sick leave, keep food at safe temperatures, clean kitchen surfaces after preparing foods, keep raw foods separate from cooked and ready to eat food at all times.

ANIMAL POPULATION TABLES

Table Susceptible animal population

Animal species	Category of animals	Population			
		holding	animal	slaughter animal (heads)	herd/flock
Cattle (bovine animals)	Cattle (bovine animals)	32,491	486,118	111,634	
Gallus gallus (fowl)	Gallus gallus (fowl) - broilers	314		35,933,159	2,403
	Gallus gallus (fowl) - laying hens	154		278,886	368
Pigs	Pigs	16,653	261,267	258,307	
Sheep and goats	Sheep and goats	7,824	137,124	11,431	
Solipeds, domestic	Solipeds, domestic - horses	9,063	26,328	1,424	
Turkeys	Turkeys - fattening flocks	43		348,179	141

DISEASE STATUS TABLES

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

Region	Number of herds with status officially free	Number of infected herds	Total number of herds
SLOVENIA	32,491	0	32,491

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

Region	Number of herds with status officially free	Number of infected herds	Total number of herds
SLOVENIA	7,824	0	7,824

DISEASE STATUS TABLES

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

Region	Number of herds with status officially free	Number of infected herds	Total number of herds
SLOVENIA	32,491	0	32,491

PREVALENCE TABLES

Table CALICIVIRUS in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Fruits - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	10	0	Calicivirus	0
	Live bivalve molluscs - Natural habitat - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	1	0	Calicivirus	0
	Live bivalve molluscs - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Calicivirus	0
	Live bivalve molluscs - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	8	4	Calicivirus	4
	Vegetables - pre-cut - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	56	0	Calicivirus	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	14	0	Calicivirus	0

Table CAMPYLOBACTER in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive	
SLOVENIA	Meat from broilers (Gallus gallus) - carcase - Slaughterhouse - Slovenia - food sample - neck skin - Monitoring - Official sampling - Objective sampling	slaughter animal batch	10	Colony forming unit/gram	150	72	Campylobacter	72	
					Gram	149	126	Campylobacter coli	36
								Campylobacter jejuni	90
								Campylobacter	0
	Vegetables - pre-cut - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	20	Colony forming unit/gram	56	0	Campylobacter	0	
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Monitoring - Official sampling - Objective sampling	single (food/feed)	20	Colony forming unit/gram	14	0	Campylobacter	0	

Table CLOSTRIDIUM in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	31	1	Clostridium	1
	Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	39	3	Clostridium	3
	Meat, mixed meat - meat preparation - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	34	1	Clostridium	1
	Meat, mixed meat - minced meat - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	26	0	Clostridium	0
	Vegetables - non-pre-cut - Farm - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	1	0	Clostridium	0
	Vegetables - non-pre-cut - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	19	1	Clostridium	1
	Vegetables - pre-cut - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	24	0	Clostridium	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	4	1	Clostridium	1

Table COXIELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	N of clinical affected herds	Zoonoses	N of units positive
SLOVENIA	Cattle (bovine animals) - Unspecified - Not Available - animal sample - blood - Monitoring - passive - Official sampling - Selective sampling	animal	110	0		Coxiella	0
	Sheep and goats - Unspecified - Not Available - animal sample - blood - Monitoring - passive - Official sampling - Selective sampling	animal	27	0		Coxiella	0
	Zoo animals, all - Unspecified - Not Available - animal sample - blood - Monitoring - passive - Official sampling - Selective sampling	animal	18	0		Coxiella	0

Table 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	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - Wholesale - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	1	0	Cronobacter	0
	Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - Wholesale - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	1	0	Cronobacter	0
	Infant formula - dried - intended for infants below 6 months - Retail - Austria - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	1	0	Cronobacter	0
	Infant formula - dried - intended for infants below 6 months - Retail - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	2	0	Cronobacter	0
	Infant formula - dried - intended for infants below 6 months - Wholesale - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	10	Gram	2	0	Cronobacter	0

Table CYSTICERCUS in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Cattle (bovine animals) - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Suspect sampling	animal	11163 4	1	Cysticercus of Taenia saginata	1
	Pigs - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Suspect sampling	animal	25830 7	0	Cysticercus	0

Table ECHINOCOCCUS in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Cattle (bovine animals) - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Suspect sampling	animal	11163 4	0	Echinococcus	0
	Goats - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Suspect sampling	animal	1252	0	Echinococcus	0
	Pigs - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Suspect sampling	animal	25830 7	0	Echinococcus	0
	Sheep - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Suspect sampling	animal	10179	0	Echinococcus	0
	Solipeds, domestic - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Suspect sampling	animal	1424	0	Echinococcus	0

Table ESCHERICHIA COLI in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Meat, mixed meat - meat preparation - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	34	2	VTEC other than O157 O26 O103 O111 O145	2
	Meat, mixed meat - meat products - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	12	0	Verocytotoxigenic E. coli (VTEC)	0
	Meat, mixed meat - meat products - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	48	0	Verocytotoxigenic E. coli (VTEC)	0
	Meat, mixed meat - minced meat - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	26	2	VTEC O157	1
VTEC other than O157 O26 O103 O111 O145							1	
	Milk from other animal species or unspecified - raw milk - Automatic distribution system for raw milk - Slovenia - food sample - milk - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	61	1	VTEC other than O157 O26 O103 O111 O145	1
	Seeds, dried - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	3	0	Verocytotoxigenic E. coli (VTEC)	0
	Seeds, dried - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	7	0	Verocytotoxigenic E. coli (VTEC)	0
	Seeds, sprouted - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	3	0	Verocytotoxigenic E. coli (VTEC)	0
	Seeds, sprouted - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	1	0	Verocytotoxigenic E. coli (VTEC)	0
	Seeds, sprouted - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	6	0	Verocytotoxigenic E. coli (VTEC)	0
	Vegetables - pre-cut - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	56	0	Verocytotoxigenic E. coli (VTEC)	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	14	0	Verocytotoxigenic E. coli (VTEC)	0

Table FLAVIVIRUS in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Vaccination status	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Milk from other animal species or unspecified - raw milk - Automatic distribution system for raw milk - Slovenia - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	20	Millilitre	Not Available	61	0	Flavivirus	0

Table HEPATITIS VIRUS in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Fruits - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	10	0	Hepatitis virus	0
	Live bivalve molluscs - Natural habitat - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	1	0	Hepatitis virus	0
	Live bivalve molluscs - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Hepatitis virus	0
	Live bivalve molluscs - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	8	0	Hepatitis virus	0

Table HISTAMINE in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
SLOVENIA	Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - Border inspection activities - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	10	Gram	3	0	<= 100	Histamine	0	0
							>100 TO <= 200	Histamine	0	0
							>200	Histamine	0	0
	Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme matured - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	10	Gram	9	0	<= 100	Histamine	0	0
							>100 TO <= 200	Histamine	0	0
							>200	Histamine	0	0
	Fish - raw - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	10	Gram	7	0	<= 100	Histamine	0	0
							>100 TO <= 200	Histamine	0	0
							>200	Histamine	0	0

Table LISTERIA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Cattle (bovine animals) - Farm - Not Available - animal sample - Monitoring - passive - Official sampling - Suspect sampling	animal	17	3	Listeria monocytogenes	3
	Sheep and goats - Farm - Not Available - animal sample - Monitoring - passive - Official sampling - Suspect sampling	animal	41	12	Listeria monocytogenes	12

Table LISTERIA in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
SLOVENIA	Bakery products - desserts - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	27	0	<= 100	Listeria monocytogenes	27	0
							>100	Listeria monocytogenes	27	0
	Bakery products - desserts - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	7	0	<= 100	Listeria monocytogenes	7	0
							>100	Listeria monocytogenes	7	0
	Cheeses, made from unspecified milk or other animal milk - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	26	0	<= 100	Listeria monocytogenes	26	0
							>100	Listeria monocytogenes	26	0
	Dairy products (excluding cheeses) - ice-cream - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	30	0	<= 100	Listeria monocytogenes	30	0
							>100	Listeria monocytogenes	30	0
	Fish - smoked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	10	0	<= 100	Listeria monocytogenes	10	0
							>100	Listeria monocytogenes	10	0
	Fishery products, unspecified - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	9	3	<= 100	Listeria monocytogenes	9	2
							>100	Listeria monocytogenes	9	1
	Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - Wholesale - Austria - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	1	0	detection	Listeria monocytogenes	1	0
	Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - Wholesale - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	detection	Listeria monocytogenes	2	0
	Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - Wholesale - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	detection	Listeria monocytogenes	2	0
	Meat, mixed meat - meat products - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	12	0	<= 100	Listeria monocytogenes	12	0
							>100	Listeria monocytogenes	12	0
	Meat, mixed meat - meat products - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	48	2	<= 100	Listeria monocytogenes	48	2
							>100	Listeria monocytogenes	48	0
	Milk from other animal species or unspecified - raw milk - Automatic distribution system for raw milk - Slovenia - food sample - milk - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	61	2	<= 100	Listeria monocytogenes	61	2
>100							Listeria monocytogenes	61	0	
Other processed food products and prepared dishes - sandwiches - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	7	0	detection	Listeria monocytogenes	7	0	
Other processed food products and prepared dishes - sandwiches - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	33	0	detection	Listeria monocytogenes	33	0	

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Method	Zoonoses	N of units tested	N of units positive
SLOVENIA	Other processed food products and prepared dishes - unspecified - ready-to-eat foods - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	10	0	<= 100	Listeria monocytogenes	10	0
							>100	Listeria monocytogenes	10	0
	Other processed food products and prepared dishes - unspecified - ready-to-eat foods - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	30	0	<= 100	Listeria monocytogenes	30	0
							>100	Listeria monocytogenes	30	0
	Seeds, sprouted - ready-to-eat - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	3	0	<= 100	Listeria monocytogenes	3	0
							>100	Listeria monocytogenes	3	0
	Seeds, sprouted - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	1	0	<= 100	Listeria monocytogenes	1	0
							>100	Listeria monocytogenes	1	0
	Seeds, sprouted - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	6	0	<= 100	Listeria monocytogenes	6	0
							>100	Listeria monocytogenes	6	0
	Vegetables - pre-cut - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	56	0	<= 100	Listeria monocytogenes	56	0
							>100	Listeria monocytogenes	56	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	20	Colony forming unit/gram	14	0	<= 100	Listeria monocytogenes	14	0
							>100	Listeria monocytogenes	14	0

Table LYSSAVIRUS in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Badgers - wild - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	8	0	Lyssavirus	0
	Bats - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	1	0	Lyssavirus	0
	Cats - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	44	0	Lyssavirus	0
	Cattle (bovine animals) - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	13	0	Lyssavirus	0
	Dogs - pet animals - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	27	0	Lyssavirus	0
	Foxes - wild - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Selective sampling	animal	1603	0	Lyssavirus	0
	Jackals - wild - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	4	0	Lyssavirus	0
	Lynx - wild - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	1	0	Lyssavirus	0
	Other mustelides - wild - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	13	0	Lyssavirus	0
	Other ruminants - wild - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	5	0	Lyssavirus	0
	Rodents - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	3	0	Lyssavirus	0
	Sheep and goats - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	22	0	Lyssavirus	0
	Solipeds, domestic - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	2	0	Lyssavirus	0
	Wild boars - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	1	0	Lyssavirus	0
	Wolves - wild - Unspecified - Not Available - animal sample - brain - Surveillance - Official sampling - Suspect sampling	animal	2	0	Lyssavirus	0

Table SALMONELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	N of flocks under control programme	Target verification	Total units tested	Total units positive	Zoonoses	N of units positive
Not Available	Gallus gallus (fowl) - broilers - before slaughter - Farm - Not Available - Not Available - Control and eradication programmes - Industry sampling - Census	herd/flock	2403	N	2396	268	Salmonella 6,7:r:-	1
							Salmonella group O:7	1
							Salmonella Infantis	263
							Salmonella Montevideo	1
							Salmonella Ohio	1
Salmonella Saintpaul	1							
	Gallus gallus (fowl) - broilers - before slaughter - Farm - Not Available - Not Available - Control and eradication programmes - Official and industry sampling - Census	herd/flock	2403	Y	2403	271	Salmonella 6,7:r:-	1
							Salmonella group O:7	1
							Salmonella Infantis	266
							Salmonella Montevideo	1
							Salmonella Ohio	1
Salmonella Saintpaul	1							
	Gallus gallus (fowl) - broilers - before slaughter - Farm - Not Available - Not Available - Control and eradication programmes - Official sampling - Objective sampling	herd/flock	2403	N	35	3	Salmonella Infantis	3
	Gallus gallus (fowl) - laying hens - adult - Farm - Not Available - Not Available - Control and eradication programmes - Official and industry sampling - Census	herd/flock	211	Y	211	6	Salmonella Enteritidis	3
							Salmonella group O:7	1
							Salmonella I, group O:30	1
							Salmonella Ohio	1
	Gallus gallus (fowl) - laying hens - during rearing period - Farm - Not Available - Not Available - Control and eradication programmes - Official and industry sampling - Census	herd/flock	157	N	157	3	Salmonella Infantis	1
							Salmonella Ohio	1
							Salmonella Saintpaul	1
	Gallus gallus (fowl) - parent breeding flocks, unspecified - adult - Farm - Not Available - Not Available - Control and eradication programmes - Official and industry sampling - Census	herd/flock	41	Y	41	1	Salmonella Ohio	1
	Gallus gallus (fowl) - parent breeding flocks, unspecified - adult - Hatchery - Not Available - Not Available - Control and eradication programmes - Official and industry sampling - Census	herd/flock	90	Y	90	0	Salmonella	0
	Gallus gallus (fowl) - parent breeding flocks, unspecified - during rearing period - Farm - Not Available - Not Available - Control and eradication programmes - Official and industry sampling - Census	herd/flock	98	N	98	0	Salmonella	0
	Turkeys - fattening flocks - before slaughter - Farm - Not Available - Not Available - Control and eradication programmes - Industry sampling - Census	herd/flock	141	N	141	6	Salmonella Ohio	6
	Turkeys - fattening flocks - before slaughter - Farm - Not Available - Not Available - Control and eradication programmes - Official and industry sampling - Census	herd/flock	141	Y	141	6	Salmonella Ohio	6
	Turkeys - fattening flocks - before slaughter - Farm - Not Available - Not Available - Control and eradication programmes - Official sampling - Objective sampling	herd/flock	141	N	19	0	Salmonella	0

Table SALMONELLA in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Bakery products - desserts - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	27	0	Salmonella	0
	Bakery products - desserts - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	7	0	Salmonella	0
	Cheeses, made from unspecified milk or other animal milk - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feeding)	25	Gram	26	0	Salmonella	0
	Dairy products (excluding cheeses) - ice-cream - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feeding)	25	Gram	30	0	Salmonella	0
	Fish - smoked - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	10	0	Salmonella	0
	Follow-on formulae - Retail - Austria - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	1	0	Salmonella	0
	Follow-on formulae - Retail - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	3	0	Salmonella	0
	Follow-on formulae - Wholesale - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	1	0	Salmonella	0
	Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - Wholesale - Austria - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	1	0	Salmonella	0
	Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - Wholesale - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	2	0	Salmonella	0
	Foodstuffs intended for special nutritional uses - dietary foods for special medical purposes - Wholesale - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	2	0	Salmonella	0
	Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - Wholesale - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	1	0	Salmonella	0
	Foodstuffs intended for special nutritional uses - dried dietary foods for special medical purposes intended for infants below 6 months - Wholesale - Netherlands - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	1	0	Salmonella	0
	Fruits - pre-cut - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feeding)	25	Gram	6	0	Salmonella	0
	Fruits - pre-cut - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feeding)	25	Gram	14	0	Salmonella	0
	Infant formula - dried - intended for infants below 6 months - Retail - Austria - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	1	0	Salmonella	0
	Infant formula - dried - intended for infants below 6 months - Retail - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/feeding)	25	Gram	2	0	Salmonella	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Infant formula - dried - intended for infants below 6 months - Wholesale - Germany - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	2	0	Salmonella	0
	Live bivalve molluscs - Natural habitat - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	1	0	Salmonella	0
	Live bivalve molluscs - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	2	0	Salmonella	0
	Live bivalve molluscs - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	8	0	Salmonella	0
	Meat from broilers (Gallus gallus) - fresh - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	31	8	Salmonella Agona	1
							Salmonella Coeln	1
							Salmonella Infantis	6
	Meat from pig - carcase - Slaughterhouse - Not Available - Not Available - Control and eradication programmes - HACCP and own check - Objective sampling	slaughter animal batch		Not Available	749	0	Salmonella	0
	Meat from poultry, unspecified - meat preparation - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	39	13	Salmonella Coeln	1
							Salmonella Infantis	12
	Meat, mixed meat - meat preparation - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	10	Gram	34	0	Salmonella	0
	Meat, mixed meat - meat products - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	12	0	Salmonella	0
	Meat, mixed meat - meat products - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	48	0	Salmonella	0
	Meat, mixed meat - minced meat - intended to be eaten cooked - chilled - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	10	Gram	26	1	Salmonella 1,4,[5],12:i:-	1
	Other food of non-animal origin - Processing plant - Peru - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Other food of non-animal origin - Processing plant - Slovenia - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Other food of non-animal origin - Retail - Peru - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Other food of non-animal origin - Retail - Taiwan - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Other food of non-animal origin - Wholesale - China - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	2	0	Salmonella	0
	Other food of non-animal origin - Wholesale - India - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Other food of non-animal origin - Wholesale - Ireland - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Other food of non-animal origin - Wholesale - Non European Union - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Other food of non-animal origin - Wholesale - Slovenia - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Other processed food products and prepared dishes - sandwiches - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	7	0	Salmonella	0
	Other processed food products and prepared dishes - sandwiches - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	33	0	Salmonella	0
	Other processed food products and prepared dishes - unspecified - ready-to-eat foods - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	10	0	Salmonella	0
	Other processed food products and prepared dishes - unspecified - ready-to-eat foods - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	30	0	Salmonella	0
	Seeds, dried - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	3	0	Salmonella	0
	Seeds, dried - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	7	0	Salmonella	0
	Seeds, sprouted - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	1	0	Salmonella	0
	Seeds, sprouted - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	2	0	Salmonella	0
		single (food/fee d)	25	Gram	1	0	Salmonella	0
	Seeds, sprouted - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	4	0	Salmonella	0
		single (food/fee d)	25	Gram	2	0	Salmonella	0
	Spices and herbs - Processing plant - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	7	0	Salmonella	0
	Spices and herbs - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	single (food/fee d)	25	Gram	18	0	Salmonella	0
	Vegetables - pre-cut - ready-to-eat - Restaurant or Cafe or Pub or Bar or Hotel or Catering service - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	56	0	Salmonella	0
	Vegetables - pre-cut - ready-to-eat - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/fee d)	25	Gram	14	0	Salmonella	0

Table SALMONELLA in feed

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Compound feedingstuffs for fish - final product - pelleted - Farm - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	7	0	Salmonella	0
	Compound feedingstuffs for pigs - final product - Farm - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	10	1	Salmonella 1,4,[5],12:i:-	1
	Compound feedingstuffs for pigs - final product - Feed mill - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	8	0	Salmonella	0
	Compound feedingstuffs for pigs - final product - Unspecified - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Salmonella	0
	Compound feedingstuffs for poultry, broilers - final product - pelleted - Unspecified - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Salmonella	0
	Compound feedingstuffs for poultry, laying hens - final product - non-pelleted/meal - Farm - Not Available - feed sample - Surveillance - Official sampling - Suspect sampling	single (food/feed)	25	Gram	2	0	Salmonella	0
	Compound feedingstuffs for poultry, laying hens - final product - non-pelleted/meal - Feed mill - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	7	0	Salmonella	0
	Feed material of cereal grain origin - Unspecified - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Salmonella	0
	Feed material of marine animal origin - fish meal - Feed mill - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	1	0	Salmonella	0
	Feed material of oil seed or fruit origin - soya (bean) derived - Border inspection activities - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Salmonella	0
	Feed material of oil seed or fruit origin - soya (bean) derived - Unspecified - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Salmonella	0
	Pet food - dog snacks (pig ears, chewing bones) - Processing plant - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	1	0	Salmonella	0
	Pet food - final product - pelleted - Veterinary clinics - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	10	0	Salmonella	0
	Pet food - final product - Retail - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	single (food/feed)	25	Gram	2	0	Salmonella	0
	Pet food - process control - Processing plant - Not Available - feed sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	6	1	Salmonella Infantis	1

Table STAPHYLOCOCCAL ENTEROTOXINS in food

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Sample weight	Sample weight unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Cheeses, made from unspecified milk or other animal milk - Retail - Not Available - food sample - Surveillance - Official sampling - Objective sampling	batch (food/feed)	25	Gram	26	0	Staphylococcal enterotoxins	0

Table TRICHINELLA in animal

Area of Sampling	Matrix - Sampling stage - Sampling origin - Sample type - Sampling context - Sampler - Sampling strategy	Sampling unit	Total units tested	Total units positive	Zoonoses	N of units positive
SLOVENIA	Bears - wild - Game handling establishment - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	16	0	Trichinella	0
	Pigs - fattening pigs - not raised under controlled housing conditions - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	258307	0	Trichinella	0
	Solipeds, domestic - Slaughterhouse - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	1424	0	Trichinella	0
	Wild boars - wild - Game handling establishment - Not Available - animal sample - organ/tissue - Surveillance - Official sampling - Census	animal	4625	4	Trichinella	4

FOODBORNE OUTBREAKS TABLES

Foodborne Outbreaks: summarized data

Causative agent	Food vehicle	Outbreak strenght			
		Weak			
		N outbreaks	N human cases	N hospitalized	N deaths
Bacillus cereus	Meat and meat products	1	35	1	0
Campylobacter jejuni	Unknown	1	5	0	0
Histamine	Fish and fish products	4	16	0	0
Unknown	Tap water, including well water	1	355	1	0
	Unknown	1	37	0	0

Strong Foodborne Outbreaks: detailed data

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

Weak Foodborne Outbreaks: detailed data

Causative agent	Other Causative Agent	FBO nat. code	Outbreak type	Food vehicle	More food vehicle info	Nature of evidence	Setting	Place of origin of problem	Origin of food vehicle	Contributory factors	Comment	N outbreaks	N human cases	N hosp.	N deaths
Bacillus cereus	unk	N_A	General	Meat and meat products	sausages	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Restaurant or Cafe or Pub or Bar or Hotel or Catering service	unk	Not Available	Cross-contamination	N_A	1	35	1	0
Campylobacter jejuni	unk	N_A	Household / domestic kitchen	Unknown	N_A	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Household	unk	Not Available	Unknown	N_A	1	5	0	0
Histamine	unk	N_A	General	Fish and fish products	N_A	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	unk	Not Available	Storage time/temperature abuse	N_A	4	16	0	0
Unknown	unk	N_A	General	Tap water, including well water	N_A	Detection of causative agent in food vehicle or its component - Detection of indistinguishable causative agent in humans	Others	unk	Not Available	Water treatment failure	N_A	1	355	1	0
				Unknown	N_A	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)	unk	Not Available	Unknown	N_A	1	37	0	0

ANTIMICROBIAL RESISTANCE TABLES FOR CAMPYLOBACTER

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: Dilution - sensititre

Country of Origin: Slovenia

Sampling details: N_A

AM substance	Ciprofloxacin	Erythromycin (Erythromycin A)	Gentamicin	Nalidixic acid	Streptomycin	Tetracycline
ECOFF	0.5	8	2	16	4	2
Lowest limit	0.12	1	0.12	1	0.25	0.5
Highest limit	16	128	16	64	16	64
N of tested isolates	30	30	30	30	30	30
MIC	N of resistant isolates	25	0	1	25	13
<=0.12	5					
<=0.5						11
0.5			14			
<=1		30				
1			15		10	1
2					3	
4	1			4	4	
8	14			1		
16	9					
>16	1		1		13	
32						1
64				5		1
>64				20		16

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: Dilution - sensititre

Country of Origin: Slovenia

Sampling details: N_A

MIC	AM substance					
	Ciprofloxacin	Erythromycin (Erythromycin A)	Gentamicin	Nalidixic acid	Streptomycin	Tetracycline
ECOFF	0.5	4	2	16	4	1
Lowest limit	0.12	1	0.12	1	0.25	0.5
Highest limit	16	128	16	64	16	64
N of tested isolates	85	85	85	85	85	85
N of resistant isolates	53	0	0	44	0	37
<=0.12	27		4			
<=0.25					2	
0.25	5		31			
<=0.5						48
0.5			48		26	
<=1		85		7		
1			2		56	
2	1			1	1	
4	1			15		
8	21			18		
16	24					
>16	6					
32				3		8
64				11		8
>64				30		21

ANTIMICROBIAL RESISTANCE TABLES FOR SALMONELLA

Table Antimicrobial susceptibility testing of Salmonella 6,7:r:- in Gallus gallus (fowl) - broilers

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes

Sampler: Industry sampling

Sampling Strategy: Census

Programme Code: AMR MON

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Official sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

Table Antimicrobial susceptibility testing of Salmonella I, group O:30 in Gallus gallus (fowl) - laying hens - adult

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

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

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	0.5	2	16	0.064	2	2	0.125	16	256	8	1	2
Lowest limit	1	2	0.25	0.5	8	0.015	1	0.5	0.03	4	8	2	0.25	0.25
Highest limit	64	64	4	8	128	8	16	32	16	128	1024	64	8	32
N of tested isolates	8	8	8	8	8	8	8	8	8	8	8	8	8	8
N of resistant isolates	0	0	0	0	0	8	0	0	0	8	8	8	0	0
MIC														
<=0.03									8					
<=0.25			8										2	8
0.25						2								
<=0.5				7				8						
0.5						6							2	
<=1	4						8							
1				1									4	
2	2													
4	2	3												
<=8					8									
8		3												
16		2												
>64												8		
>128										8				
>1024											8			

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

Sampling Stage: Slaughterhouse

Sampling Type: food sample - neck skin

Sampling Context: Monitoring

Sampler: HACCP and own check

Sampling Strategy: Objective sampling

Programme Code: AMR MON

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	0.5	2	16	0.064	2	2	0.125	16	256	8	1	2
Lowest limit	1	2	0.25	0.5	8	0.015	1	0.5	0.03	4	8	2	0.25	0.25
Highest limit	64	64	4	8	128	8	16	32	16	128	1024	64	8	32
N of tested isolates	9	9	9	9	9	9	9	9	9	9	9	9	9	9
N of resistant isolates	3	0	0	0	0	8	0	0	0	9	9	9	0	0
MIC														
<=0.015						1								
<=0.03									9					
<=0.25			9											9
0.25						1								
<=0.5				9				9						
0.5						5								6
<=1							9							
1														3
2	4					2								
4	2	4												
<=8					8									
8		5												
16					1									
>64	3											9		
>128										9				
>1024											9			

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	0.5	2	16	0.064	2	2	0.125	16	256	8	1	2
Lowest limit	1	2	0.25	0.5	8	0.015	1	0.5	0.03	4	8	2	0.25	0.25
Highest limit	64	64	4	8	128	8	16	32	16	128	1024	64	8	32
N of tested isolates	77	77	77	77	77	77	77	77	77	77	77	77	77	77
N of resistant isolates	16	0	0	0	0	77	0	0	0	77	76	76	2	0
MIC														
<=0.03									77					
<=0.25			74										7	77
0.25						10								
<=0.5				64				76						
0.5			3			52							23	
<=1	11						76							
1				13		7		1					45	
<=2		8										1		
2	29					2	1						2	
4	21	28				5								
<=8					75						1			
8		32				1								
16		9			2									
64												1		
>64	16											75		
128										1				
>128										76				
1024											1			
>1024											75			

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Official sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	0.5	2	16	0.064	2	2	0.125	16	256	8	1	2
Lowest limit	1	2	0.25	0.5	8	0.015	1	0.5	0.03	4	8	2	0.25	0.25
Highest limit	64	64	4	8	128	8	16	32	16	128	1024	64	8	32
N of tested isolates	3	3	3	3	3	3	3	3	3	3	3	3	3	3
N of resistant isolates	0	0	0	0	0	3	0	0	0	3	3	3	0	0
MIC														
<=0.03									3					
<=0.25			3											3
0.25						1								
<=0.5				3				3						
0.5						1								
<=1	1						3							
1						1							3	
2	1													
4	1	1												
<=8					3									
8		1												
16		1												
>64												3		
>128										3				
>1024											3			

Table Antimicrobial susceptibility testing of Salmonella Infantis in Gallus gallus (fowl) - laying hens - during rearing period

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	0.5	2	16	0.064	2	2	0.125	16	256	8	1	2
Lowest limit	1	2	0.25	0.5	8	0.015	1	0.5	0.03	4	8	2	0.25	0.25
Highest limit	64	64	4	8	128	8	16	32	16	128	1024	64	8	32
N of tested isolates	1	1	1	1	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIC														
<=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 Ohio in Gallus gallus (fowl) - laying hens - during rearing period

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

Table Antimicrobial susceptibility testing of Salmonella Ohio in Turkeys - fattening flocks

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Colistin	Gentamicin	Meropenem	Nalidixic acid	Sulfamethoxazole	Tetracycline	Tigecycline	Trimethoprim
ECOFF	8	16	0.5	2	16	0.064	2	2	0.125	16	256	8	1	2
Lowest limit	1	2	0.25	0.5	8	0.015	1	0.5	0.03	4	8	2	0.25	0.25
Highest limit	64	64	4	8	128	8	16	32	16	128	1024	64	8	32
N of tested isolates	9	9	9	9	9	9	9	9	9	9	9	9	9	9
N of resistant isolates	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIC														
<=0.015						7								
<=0.03									9					
0.03						2								
<=0.25			9										8	9
<=0.5				9				9						
0.5													1	
<=1	9						9							
<=2												9		
<=4										9				
4		9												
<=8					9						6			
16											3			

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

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

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

Table Antimicrobial susceptibility testing of Salmonella Saintpaul in Gallus gallus (fowl) - laying hens - during rearing period

Sampling Stage: Farm

Sampling Type: environmental sample - boot swabs

Sampling Context: Control and eradication programmes
Programme Code: AMR MON

Sampler: Industry sampling

Sampling Strategy: Census

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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

ANTIMICROBIAL RESISTANCE TABLES FOR INDICATOR ESCHERICHIA COLI

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

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pn12

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Austria

Sampling Details: N_A

AM substance	Cefapime	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	2	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	128
N of tested isolates	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	1	2	2	2	2	2	0	0	0	0
MIC										
<=0.03									2	
0.03							1			
0.064							1			
<=0.12								1		
0.12	1									
0.25	1							1		
4			2			1				
8		2			1	1				2
16					1					
32				1						
64				1						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - 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: Micromethod dilution (in microtiter plate)

Country of Origin: Austria

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Collistin	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
N of resistant isolates	2	0	2	2	0	0	0	0	0	0	0	1	0	0
MIC														
<=0.015						2								
<=0.03									2					
<=0.25													2	2
<=0.5								2						
<=1							2							
<=2		2										1		
<=4										2				
>4			2											
<=8					2						2			
8				2										
>64	2											1		

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

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pn12

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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	2	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	128		
N of tested isolates	105	105	105	105	105	105	105	105	105	105		
N of resistant isolates	62	105	76	77	105	76	4	0	0	0		
MIC												
<=0.015							47					
<=0.03									105			
0.03							43					
<=0.064	8	28										
0.064							11					
<=0.12						26	92					
0.12	35								4			
0.25	46	1					2	13				
0.5	6	1					1					
1	8		4				6					
2	1	12	6	6	7	13						
4	7	30	51	20	16	40						
8	1	39	13	2	55	23						
16	1	13	2				21					

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	2	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	128
N of tested isolates	105	105	105	105	105	105	105	105	105	105
N of resistant isolates	62	105	76	77	105	76	4	0	0	0
MIC										
32		2		27						
64				38						
>64				12						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - 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: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Collistin	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	105	105	105	105	105	105	105	105	105	105	105	105	105	105	
N of resistant isolates	105	1	105	105	5	75	0	13	0	66	42	26	0	10	
MIC															
<=0.015						28									
<=0.03										105					
0.03						2									
0.12						9									
<=0.25													83	89	
0.25						31									
<=0.5								81							
0.5			1			2						20	4		
<=1							105								
1			6	10			5	11					2	2	
<=2			47												79
2			19	1			5								
<=4										36					
4			51	26	22			8							
>4				53											
<=8					98						57				
8			6			51	11						2		
>8				21			4								
16					2				10	1	5				
32								2			1				
>32									1						10

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	105	105	105	105	105	105	105	105	105	105	105	105	105	105
N of resistant isolates	105	1	105	105	5	75	0	13	0	66	42	26	0	10
64	5	1			1					20		13		
>64	100											13		
128					4					23				
>128										23				
>1024											42			

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

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pn12

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Germany

Sampling Details: N_A

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
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	2	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	128
N of tested isolates	3	3	3	3	3	3	3	3	3	3
N of resistant isolates	2	3	2	2	3	2	0	0	0	0
<=0.015							1			
<=0.03									3	
0.03							2			
<=0.064			1							
<=0.12						1		3		
0.12	1									
0.25	2									
2		1		1						
4			2			2				3
8		2			2					
16					1					
64				2						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - 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: Micromethod dilution (in microtiter plate)

Country of Origin: Germany

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Collistin	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
N of resistant isolates	3	0	3	3	0	1	0	2	0	1	2	2	0	0
MIC														
<=0.015						2								
<=0.03									3					
<=0.25													2	3
<=0.5								1						
0.5													1	
<=1							3							
<=2		1										1		
2			1			1								
<=4										2				
4		2												
>4			2											
<=8					3						1			
8				3										
16								2						
>64	3											2		
128										1				
>1024											2			

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

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pn12

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Denmark

Sampling Details: N_A

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	2	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	128
N of tested isolates	2	2	2	2	2	2	2	2	2	2
N of resistant isolates	2	2	1	1	2	1	0	0	0	0
<=0.015							1			
<=0.03									2	
<=0.064			1							
0.064							1			
<=0.12						1		2		
0.25	2									
2		1								
4				1						1
8		1	1		2	1				1
>64				1						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - 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: Micromethod dilution (in microtiter plate)

Country of Origin: Denmark

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Collistin	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
N of resistant isolates	2	0	2	2	0	0	1	1	0	0	2	1	0	0
MIC														
<=0.015						1								
<=0.03									2					
0.03						1								
<=0.25													1	2
<=0.5								1						
0.5													1	
<=1							1							
<=2		1										1		
2			1											
<=4										2				
4		1					1							
>4			1											
<=8					2									
8				1										
>8				1										
32								1						
>64	2											1		
>1024											2			

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

Sampling Stage: Retail

Sampling Type: food sample - meat

Sampling Context: Monitoring

Sampler: Official sampling

Sampling Strategy: Objective sampling

Programme Code: ESBL MON pnI2

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Croatia

Sampling Details: N_A

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	2	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	128
N of tested isolates	1	1	1	1	1	1	1	1	1	1
N of resistant isolates	1	1	1	1	1	1	0	0	0	0
<=0.015							1			
<=0.03									1	
<=0.12								1		
0.25	1									
4		1	1			1				
8					1					1
32				1						

Table Antimicrobial susceptibility testing of Escherichia coli, non-pathogenic, unspecified in Meat from broilers (Gallus gallus) - 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: Micromethod dilution (in microtiter plate)

Country of Origin: Croatia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Collistin	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
N of resistant isolates	1	0	1	1	0	1	0	0	0	0	0	0	0	0
MIC														
<=0.03									1					
<=0.25													1	1
0.25						1								
<=0.5								1						
<=1							1							
<=2		1										1		
4			1											
<=8					1						1			
8				1										
16										1				
>64	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: AMR MON pnl2

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: Out of 149 E.coli isolates obtained, 85 isolates were selected for AMR Pnl 1 testing, and 6 isolates were further tested for AMR Pnl 2. For one isolate (Ec76TŠ16) difference in the resistance for cephalosporines was observed between Pnl1 and Pnl 2. Thus, the isolate Ec76TŠ16 was again tested for AMR Pnl 1, and showed no resistance for cephalosporines.

AM substance	Cefepime	Cefotaxim	Cefotaxime + Clavulanic acid	Cefoxitin	Ceftazidim	Ceftazidime + Clavulanic acid	Ertapenem	Imipenem	Mero penem	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	2	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	128
N of tested isolates	5	5	5	5	5	5	5	5	5	5
N of resistant isolates	3	5	3	3	5	3	0	0	0	0
MIC										
<=0.015							2			
<=0.03									5	
0.03							2			
<=0.064			2							
0.064							1			
<=0.12						1		4		
0.12	2									
0.25	2					1		1		
1		1		1						1
2					1					1
4	1	2	2		1	2				1
8		1	1	1	2	1				2
16					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	2	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	128
N of tested isolates	5	5	5	5	5	5	5	5	5	5
N of resistant isolates	3	5	3	3	5	3	0	0	0	0
MIC										
32		1								
64				3						

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: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Collistin	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	85	85	85	85	85	85	85	85	85	85	85	85	85	85
N of resistant isolates	59	1	5	5	2	71	0	2	0	64	29	35	0	22
MIC														
<=0.015						14								
<=0.03									85					
0.12						10								
<=0.25			80										35	63
0.25						17								
<=0.5				80				67						
0.5						7							44	
<=1	3						84							
1			1			11		16					6	
<=2		31										50		
2	15					8	1							
<=4										18				
4	8	32	2	2		6								
>4			2											
<=8					83						55			
8		20		1		11				1				
>8				2		1								
16		1								2	1			
32		1						1				1		
>32								1						22
64										17		16		

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	85	85	85	85	85	85	85	85	85	85	85	85	85	85	
N of resistant isolates	59	1	5	5	2	71	0	2	0	64	29	35	0	22	
MIC															
>64	59											18			
128					1						6				
>128					1						41				
1024											1				
>1024											28				

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 pn12

Analytical Method: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

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
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	2	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	128
N of tested isolates	139	139	139	139	139	139	139	139	139	139
N of resistant isolates	101	139	91	92	139	90	11	0	0	1
<=0.015							57			
<=0.03									134	
0.03							48			
<=0.064	11		47							
0.064							23		5	
<=0.12						40		101		
0.12	27						10			
0.25	73		1			7	1	38		
0.5	15		1			2				
1	2	13	4	2	6					5
2	1	28	6	13	7	8				12
4	9	29	53	30	19	43				73
8		49	26	2	70	37				45
16	1	15		1	35	1				3

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	2	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	128
N of tested isolates	139	139	139	139	139	139	139	139	139	139
N of resistant isolates	101	139	91	92	139	90	11	0	0	1
MIC										
32		3	1	23	2	1				
64		2		54						1
>64				14						

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: Micromethod dilution (in microtiter plate)

Country of Origin: Slovenia

Sampling Details: N_A

AM substance	Ampicillin	Azithromycin	Cefotaxim	Ceftazidim	Chloramphenicol	Ciprofloxacin	Collistin	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	139	139	139	139	139	139	139	139	139	139	139	139	139	139		
N of resistant isolates	139	3	139	138	16	103	0	21	0	74	67	49	0	27		
MIC																
<=0.015						34										
<=0.03										138						
0.03							2									
0.064									1							
0.12						9										
<=0.25											114	106				
0.25						46										
<=0.5				1									102			
0.5						5								25	6	
<=1							139									
1			8	6			6				16					
<=2			61								90					
2				38	3			11								
<=4										53						
4			67	28	29			1				1				
>4				65												
<=8					122						60					
8				7			66			18			2			10
>8					34			7								
16			1				1				9			2	10	
32	1	1												8	2	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	139	139	139	139	139	139	139	139	139	139	139	139	139	139
N of resistant isolates	139	3	139	138	16	103	0	21	0	74	67	49	0	27
MIC														
>32								1						27
64	2	1			1					16		12		
>64	136	1										35		
128					10					32				
>128					5					26				
>1024											67			

OTHER ANTIMICROBIAL RESISTANCE TABLES

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
CARBA MON	Gallus gallus (fowl) - broilers	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Slaughterhouse	N_A	Monitoring	Official sampling	animal sample - caecum	slaughter animal batch	Slovenia	N_A	149	0
	Meat from broilers (Gallus gallus) - fresh	Escherichia coli, non-pathogenic, unspecified	Objective sampling	Retail	N_A	Monitoring	Official sampling	food sample - meat	batch (food/feed)	Austria	N_A	3	0
										Croatia	N_A	2	0
										Denmark	N_A	5	0
										Germany	N_A	6	0
										Hungary	N_A	2	0
										Slovenia	N_A	132	0

Latest Transmission set

Table Name	Last submitted dataset transmission date
Antimicrobial Resistance	04-Jul-2017
Animal Population	04-Jul-2017
Disease Status	04-Jul-2017
Food Borne Outbreaks	04-Jul-2017
Prevalence	05-Jul-2017
Text Forms	23-Jun-2017