European Food Safety Authority

ZOONOSES MONITORING

CYPRUS

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

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

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

IN 2011

INFORMATION ON THE REPORTING AND MONITORING SYSTEM

Country: Cyprus

Reporting Year: 2011

Laboratory name	Description	Contribution
Necropsy Lab	Microbiology Necropsy	Microbiological and Pathologoanatomy data
Animal Health Lab	AHL	Animal Health microbiological data
Lab for the Control of Food of Animal Origin	LCFAO	Food Safety and Food Microbiology data

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 Cyprus during the year 2011 .

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

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

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

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

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

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1. ANIMAL POPULATIONS

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

A. Information on susceptible animal population

Sources of information

The information furnished derives from the Veterinary Services' database.

Dates the figures relate to and the content of the figures

The numbers represent the animals present until the end of December 2011.

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

The total bovine population is estimated to 58,127 animals, reared in 356 herds. The population under the brucellosis program is 38,474 animals in 308 herds.
The total sheep and goat population is estimated to 583,790 reared in 3,362 flocks. The population under the brucellosis program is 512,179 animals reared in 3,156 flocks.

Table Susceptible animal populations

* Only if different than current reporting year

		Number of herds or flocks		Number of slaughtered animals		Livestock numbers (live animals)		Number of holdings	
Animal species	Category of animals	Data	Year*	Data	Year*	Data	Year*	Data	Year*
Cattle (bovine animals)	dairy cows and heifers					40330			
	calves (under 1 year)					17797			
	mixed herds							356	
	- in total					58127		356	
Ducks	meat production flocks	0		0		0		0	
	parent breeding flocks	0		0		0		0	
	grandparent breeding flocks	0		0		0		0	
	elite breeding flocks	0		0		0		0	
	breeding flocks, unspecified - in total	0		0		0		0	
	laying ducks	0		0		0		0	
	mixed flocks/holdings	0		0		0		0	
	- in total	0		0		0		0	
Gallus gallus (fowl)	breeding flocks for egg production line - in total	2				5207		2	

Table Susceptible animal populations

		Number of herds or flocks		Number of slaughtered animals		Livestock numbers (live animals)		Number of holdings	
Animal species	Category of animals	Data	Year*	Data	Year*	Data	Year*	Data	Year*
Gallus gallus (fowl)	breeding flocks for meat production line - in total	64				329508		14	
	breeding flocks, unspecified - in total	66				334715		16	
	elite breeding flocks for egg production line	0		0		0		0	
	elite breeding flocks for meat production line	0		0		0		0	
	elite breeding flocks, unspecified - in total	0		0		0		0	
	parent breeding flocks for egg production line	2				5207		2	
	parent breeding flocks for meat production line	64				329508		14	
	parent breeding flocks, unspecified - in total	66				334715		16	
	grandparent breeding flocks for egg production line	0		0		0		0	
	grandparent breeding flocks for meat production line	0		0		0		0	
	grandparent breeding flocks, unspecified - in total	0		0		0		0	
	laying hens	100				473018		53	
	broilers	1940		10743524		10773552		100	
	mixed flocks/holdings	0		0		0		0	

Table Susceptible animal populations

		Number of herds or flocks		Number of slaughtered animals		Livestock numbers (live animals)		Number of holdings	
Animal species	Category of animals	Data	Year*	Data	Year*	Data	Year*	Data	Year*
Gallus gallus (fowl)	- in total	2172		10743524		11916000		185	
Geese	- in total	0		0		0			
Goats	animals under 1 year					148760			
	animals over 1 year					435030			
	mixed herds							3362	
	- in total [1)]					583790		3362	
Pigs	- in total							89	
Sheep	animals under 1 year (lambs)					148760			
	animals over 1 year					435030			
	mixed herds							3362	
	- in total [2)]					583790		3362	
Solipeds, domestic	horses - in total					4211		356	
Turkeys	meat production flocks	13				31669		8	
	- in total	13				31669		8	

Table Susceptible animal populations

Comments:

[1] *The goat population is incorporated with the sheep population

[2] *The goat population is incorporated with the sheep population

2. INFORMATION ON SPECIFIC ZOONOSES AND ZOONOTIC AGENTS

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

2.1 SALMONELLOSIS

2.1.1 General evaluation of the national situation

A. General evaluation

History of the disease and/or infection in the country

Over the last years a surveillance program has been applied by the Veterinary Services covering the poultry sector. Foods of animal origin are examined for Samonella on a regular basis.

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

Nowadays data exist for poultry and foods of animal origin.

2.1.2 Salmonellosis in humans

A. Salmonellosis in humans

Reporting system in place for the human cases

YES, SINCE 1932

Case definition

EU RECOMMENDED CASE DEFINITION SINCE JANUARY 2004

Diagnostic/analytical methods used

EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSTIC CRITERIA.

Notification system in place

QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND AMENDMENTS. MANDATORY NOTIFIABLE SINCE 1932

History of the disease and/or infection in the country

SPORADIC CASES ARE REPORTED YEARLY AS WELL AS OCCASIONAL SMALL OUTBREAKS. ACTIVE SURVEILLANCE IS IN PLACE AS WELL AS CASE BY CASE INVESTIGATION BY THE ENVIRONMENTAL HEALTH INSPECTORS

Relevance as zoonotic disease

SURVEILLANCE OF HUMAN CASES IS ACTIVE BEARING IN MIND THE NEED TO EVALUATE PREVENTION PROGRAMMES AS WELL AS THE EARLY DIAGNOSIS OF CASES AND PREVENTION OF FURTHER CASES

Additional information

The relevant data for 2011 will be submitted by the colleagues of the Ministry of Health through the ECDC database network.

2.1.3 Salmonella in foodstuffs

A. Salmonella spp. in pig meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Definition of positive finding

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

B. Salmonella spp. in bovine meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Definition of positive finding

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

C. Salmonella spp. in broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Definition of positive finding

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

D. Salmonella spp. in eggs and egg products

Monitoring system

Sampling strategy

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Eggs at egg packing centres (foodstuff based approach)

NO DATA AVAILABLE

Eggs at retail

NO DATA AVAILABLE

Raw material for egg products (at production plant)

NO DATA AVAILABLE

Egg products (at production plant and at retail)

NO DATA AVAILABLE

Definition of positive finding

Eggs at egg packing centres (foodstuff based approach)

NO DATA AVAILABLE

Eggs at retail

NO DATA AVAILABLE

Raw material for egg products (at production plant)

NO DATA AVAILABLE

Egg products (at production plant and at retail)

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

E. Salmonella spp. in turkey meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Definition of positive finding

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

Table Salmonella in poultry meat and products thereof

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Surveillance	LCFAO		Official sampling	food sample > neck skin		Batch	25 g	245	30		
Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance	LCFAO		Official sampling	food sample > meat		Batch	25g	130	10		
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	130	10		
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	55	0		
Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	LCFAO										
Meat from broilers (Gallus gallus) - minced meat - intended to be eaten cooked - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	15	5		
Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	20	0		
Meat from farmed game - ratites - carcase - chilled - at slaughterhouse - Surveillance	LCFAO		Official sampling	food sample > meat		Batch	25 g	5	5		
Other products of animal origin - at slaughterhouse - Surveillance	LCFAO		Official sampling	food sample		Slaughter batch	25 g	10	0		

Table Salmonella in poultry meat and products thereof

	Salmonella spp., unspecified
Meat from broilers (Gallus gallus) - carcase - at slaughterhouse - Surveillance	30
Meat from broilers (Gallus gallus) - fresh - at processing plant - Surveillance	10
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	10
Meat from broilers (Gallus gallus) - meat preparation - intended to be eaten cooked - at retail - Surveillance	
Meat from broilers (Gallus gallus) - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
Meat from broilers (Gallus gallus) - minced meat - intended to be eaten cooked - at processing plant - Surveillance	5
Meat from turkey - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	
Meat from farmed game - ratites - carcase - chilled - at slaughterhouse - Surveillance	5
Other products of animal origin - at slaughterhouse - Surveillance	

Table Salmonella in milk and dairy products

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Cheeses, made from mixed milk from cows, sheep and/or goats - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	270	0		
Cheeses, made from mixed milk from cows, sheep and/or goats - soft and semi-soft - made from pasteurised milk - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	1288	5		
Dairy products (excluding cheeses) - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	5	0		
Dairy products (excluding cheeses) - cream - made from pasteurised milk - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	25	0		
Dairy products (excluding cheeses) - fermented dairy products - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	60	0		
Dairy products (excluding cheeses) - yoghurt - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	500	0		
Milk from other animal species or unspecified - raw milk - at farm - Surveillance	LCFAO		Official sampling	food sample > milk			25 g	1	0		
Milk, cows' - pasteurised milk - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample > milk		Batch	25 g	21	0		
Milk, cows' - raw milk - at farm - Surveillance	LCFAO		Official sampling	food sample > milk			25 g	33	3		
Milk, goats' - raw milk - at farm - Surveillance	LCFAO		Official sampling	food sample > milk			25 g	1	0		

Table Salmonella in milk and dairy products

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Other products of animal origin - at processing plant - domestic production - Surveillance (Trachanas)	LCFAO		Official sampling	food sample		Batch	25 g	30	0		

	Salmonella spp., unspecified	S. Mishmarhaemek	S. Montevideo	S. Telaviv
Cheeses, made from mixed milk from cows, sheep and/or goats - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance	0			
Cheeses, made from mixed milk from cows, sheep and/or goats - soft and semi-soft - made from pasteurised milk - at processing plant - domestic production - Surveillance	5			
Dairy products (excluding cheeses) - at processing plant - Surveillance				
Dairy products (excluding cheeses) - cream - made from pasteurised milk - Surveillance				
Dairy products (excluding cheeses) - fermented dairy products - at processing plant - domestic production - Surveillance				
Dairy products (excluding cheeses) - yoghurt - Surveillance				
Milk from other animal species or unspecified - raw milk - at farm - Surveillance				

Table Salmonella in milk and dairy products

	Salmonella spp., unspecified	S. Mishmarhaemek	S. Montevideo	S. Telaviv
Milk, cows' - pasteurised milk - at processing plant - domestic production - Surveillance				
Milk, cows' - raw milk - at farm - Surveillance		1	1	1
Milk, goats' - raw milk - at farm - Surveillance				
Other products of animal origin - at processing plant - domestic production - Surveillance (Trachanas)				

Table Salmonella in other food

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Fishery products, unspecified - cooked - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	55	0		
Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance	LCFAO		Official sampling	animal sample > eggs		Batch	25 g	5	0		
Fish - raw - Surveillance	LCFAO		Official sampling	food sample			25 g	11	10		
Fishery products, unspecified - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	5	0		
Meat from bovine animals - fresh - Surveillance	LCFAO		Official sampling	food sample > meat			25 g	25	0		
Meat from bovine animals and pig - at slaughterhouse - Surveillance (Food Category:Carcases of cattle, sheep and goats.)	LCFAO		Official sampling					20	0		
Meat from other animal species or not specified - Surveillance (Sheep's and goat's meat)	LCFAO		Official sampling	food sample > meat		Batch	25 g	10	0		
Meat from pig - fresh - Surveillance	LCFAO		Official sampling	food sample > meat		Batch	25 g	101	0		
Meat from rabbit - fresh - Surveillance	LCFAO		Official sampling	food sample > meat		Batch	25 g	42	0		
Other food - Surveillance (Bovine minced meat)	LCFAO		Official sampling	food sample > meat		Batch	10 g	45	0		
Other food - Surveillance (Meat preparations made from bovine meat)	LCFAO		Official sampling	food sample		Batch	10 g	110	0		
Other food - Surveillance (Meat preparations made from pork meat)	LCFAO		Official sampling	food sample		Batch	10 g	1005	90		
Other food - Surveillance (Pork minced meat)	LCFAO		Official sampling	food sample > meat		Batch	10 g	360	5		
Other food of non-animal origin - Surveillance (Animal feed)	LCFAO		Official sampling	feed sample		Batch	25 g	380	14		

Table Salmonella in other food

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Other products of animal origin - Surveillance (Ready to eat products from pork and bovine meat)	LCFAO		Official sampling	food sample		Batch	10 g	540	0		

	Salmonella spp., unspecified	S. 1,3,19:-:-	S. Kedougou	S. Mbandaka	S. Ouakam	S. Senftenberg
Fishery products, unspecified - cooked - at processing plant - Surveillance						
Eggs - raw material (liquid egg) for egg products - at processing plant - Surveillance						
Fish - raw - Surveillance	10					
Fishery products, unspecified - Surveillance						
Meat from bovine animals - fresh - Surveillance						
Meat from bovine animals and pig - at slaughterhouse - Surveillance (Food Category:Carcases of cattle, sheep and goats.)						
Meat from other animal species or not specified - Surveillance (Sheep's and goat's meat)						
Meat from pig - fresh - Surveillance						
Meat from rabbit - fresh - Surveillance						
Other food - Surveillance (Bovine minced meat)						

Table Salmonella in other food

	Salmonella spp., unspecified	S. 1,3,19:-:-	S. Kedougou	S. Mbandaka	S. Ouakam	S. Senftenberg
Other food - Surveillance (Meat preparations made from bovine meat)						
Other food - Surveillance (Meat preparations made from pork meat)	90					
Other food - Surveillance (Pork minced meat)	5					
Other food of non-animal origin - Surveillance (Animal feed)		1	2	1	9	1
Other products of animal origin - Surveillance (Ready to eat products from pork and bovine meat)						

Table Salmonella in red meat and products thereof

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Meat from pig - fresh - at processing plant - Surveillance	LCFAO		Official sampling			Batch	10g	95	0		
Meat from pig - fresh - at retail - Surveillance	LCFAO		Official sampling			Batch	10g	21	0		
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance	LCFAO		Official sampling			Batch	10g	180	5		
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance	LCFAO		Official sampling			Batch	10g	170	0		
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	LCFAO		Official sampling			Batch	10g	320	10	0	0
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - Surveillance	LCFAO		Official sampling			Batch	10g	630	35	0	0
Meat from bovine animals - fresh - at processing plant - Surveillance	LCFAO		Official sampling	animal sample		Batch	10g	30	0	0	0
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance	LCFAO		Official sampling			Batch	10g	30	0	0	0
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance	LCFAO		Official sampling			Batch	10g	20	0	0	0
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	LCFAO		Official sampling			Batch	10g	80	0	0	0
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance	LCFAO		Official sampling			Batch	10g	25	5	0	0

Table Salmonella in red meat and products thereof

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium
Meat from sheep - fresh - at processing plant - Surveillance	LCFAO		Official sampling			Batch	10g	10	0	0	0
Meat from pig - meat products - unspecified, ready-to-eat - at processing plant - Surveillance	LCFAO		Official sampling			Batch	10g	365	5	0	0
Meat from pig - meat products - unspecified, ready-to-eat - at retail - domestic production - Surveillance (Traditional sausages and delicatessen)	LCFAO		Official sampling			Batch	10g	65	0	0	0
Meat from sheep - meat products - raw but intended to be eaten cooked - Surveillance	LCFAO		Official sampling			Batch	10g	10	0	0	0
Other products of animal origin	LCFAO		Official sampling			Batch	10g	10	0	0	0
Other products of animal origin - at slaughterhouse	LCFAO		Official sampling			Batch	10g	10	0	0	0

	Salmonella spp., unspecified
Meat from pig - fresh - at processing plant - Surveillance	
Meat from pig - fresh - at retail - Surveillance	
Meat from pig - minced meat - intended to be eaten cooked - at processing plant - Surveillance	5
Meat from pig - minced meat - intended to be eaten cooked - at retail - Surveillance	

Table Salmonella in red meat and products thereof

	Salmonella spp., unspecified
Meat from pig - meat products - raw but intended to be eaten cooked - at processing plant - Surveillance	10
Meat from pig - meat products - raw but intended to be eaten cooked - at retail - Surveillance	35
Meat from bovine animals - fresh - at processing plant - Surveillance	0
Meat from bovine animals - minced meat - intended to be eaten cooked - at processing plant - Surveillance	0
Meat from bovine animals - minced meat - intended to be eaten cooked - at retail - Surveillance	0
Meat from bovine animals - meat preparation - intended to be eaten cooked - at processing plant - Surveillance	0
Meat from bovine animals - meat preparation - intended to be eaten cooked - at retail - Surveillance	5
Meat from sheep - fresh - at processing plant - Surveillance	0
Meat from pig - meat products - unspecified, ready-to-eat - at processing plant - Surveillance	5
Meat from pig - meat products - unspecified, ready-to-eat - at retail - domestic production - Surveillance (Traditional sausages and delicatessen)	0

Table Salmonella in red meat and products thereof

	Salmonella spp., unspecified
Meat from sheep - meat products - raw but intended to be eaten cooked - Surveillance	0
Other products of animal origin	0
Other products of animal origin - at slaughterhouse	0

2.1.4 Salmonella in animals

A. Salmonella spp. in bovine animals

Monitoring system

Sampling strategy

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Animals at farm

NO DATA AVAILABLE

Animals at slaughter (herd based approach)

NO DATA AVAILABLE

Case definition

Animals at farm

NO DATA AVAILABLE

Animals at slaughter (herd based approach)

NO DATA AVAILABLE

Vaccination policy

NO DATA AVAILABLE

Other preventive measures than vaccination in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

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

Monitoring system

Sampling strategy

Breeding flocks

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Breeding flocks: Day-old chicks

NO DATA AVAILABLE

Breeding flocks: Rearing period

NO DATA AVAILABLE

Breeding flocks: Production period

NO DATA AVAILABLE

Meat production flocks: Day-old chicks

NO DATA AVAILABLE

Meat production flocks: Rearing period

NO DATA AVAILABLE

Meat production flocks: Before slaughter at farm

NO DATA AVAILABLE

Meat production flocks: At slaughter (flock based approach)

NO DATA AVAILABLE

Case definition

Breeding flocks: Day-old chicks

NO DATA AVAILABLE

Breeding flocks: Rearing period

NO DATA AVAILABLE

Breeding flocks: Production period

NO DATA AVAILABLE

Meat production flocks: Day-old chicks

NO DATA AVAILABLE

Meat production flocks: Rearing period

NO DATA AVAILABLE

Meat production flocks: Before slaughter at farm

NO DATA AVAILABLE

Meat production flocks: At slaughter (flock based approach)

NO DATA AVAILABLE

Vaccination policy

Breeding flocks

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Other preventive measures than vaccination in place

Breeding flocks

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

Breeding flocks

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

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

Monitoring system

Sampling strategy

Breeding flocks

NO DATA AVAILABLE

Type of specimen taken

Imported feed material of animal origin

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Meat production flocks: Day-old chicks

NO DATA AVAILABLE

Meat production flocks: Rearing period

NO DATA AVAILABLE

Meat production flocks: Before slaughter at farm

NO DATA AVAILABLE

Meat production flocks: At slaughter (flock based approach)

NO DATA AVAILABLE

Case definition

Breeding flocks: Day-old chicks

NO DATA AVAILABLE

Breeding flocks: Rearing period

NO DATA AVAILABLE

Breeding flocks: Production period

NO DATA AVAILABLE

Meat production flocks: Day-old chicks

NO DATA AVAILABLE

Meat production flocks: Rearing period

NO DATA AVAILABLE

Meat production flocks: Before slaughter at farm

NO DATA AVAILABLE

Meat production flocks: At slaughter (flock based approach)

NO DATA AVAILABLE

Vaccination policy

Breeding flocks

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Other preventive measures than vaccination in place

Breeding flocks

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

Breeding flocks

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

Breeding flocks

NO DATA AVAILABLE

Meat Production flocks

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

D. Salmonella spp. in pigs

Monitoring system

Sampling strategy

Breeding herds

NO DATA AVAILABLE

Multiplying herds

NO DATA AVAILABLE

Fattening herds

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Breeding herds

NO DATA AVAILABLE

Multiplying herds

NO DATA AVAILABLE

Fattening herds at farm

NO DATA AVAILABLE

Fattening herds at slaughterhouse (herd based approach)

NO DATA AVAILABLE

Case definition

Breeding herds

NO DATA AVAILABLE

Multiplying herds

NO DATA AVAILABLE

Fattening herds at farm

NO DATA AVAILABLE

Fattening herds at slaughterhouse (herd based approach)

NO DATA AVAILABLE

Vaccination policy

Breeding herds

NO DATA AVAILABLE

Multiplying herds

NO DATA AVAILABLE

Fattening herds

NO DATA AVAILABLE

Other preventive measures than vaccination in place

Breeding herds

NO DATA AVAILABLE

Multiplying herds

NO DATA AVAILABLE

Fattening herds

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

Breeding herds

NO DATA AVAILABLE

Multiplying herds

NO DATA AVAILABLE

Fattening herds

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

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

Monitoring system

Sampling strategy

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

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Meat production flocks: Day-old chicks

NO DATA AVAILABLE

Meat production flocks: Rearing period

NO DATA AVAILABLE

Meat production flocks: Before slaughter at farm

NO DATA AVAILABLE

Meat production flocks: At slaughter (flock based approach)

NO DATA AVAILABLE

Case definition

NO DATA AVAILABLE

Monitoring system

Case definition

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Meat production flocks: Day-old chicks

NO DATA AVAILABLE

Meat production flocks: Rearing period

NO DATA AVAILABLE

Meat production flocks: Before slaughter at farm

NO DATA AVAILABLE

Meat production flocks: At slaughter (flock based approach)

NO DATA AVAILABLE

Vaccination policy

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

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Other preventive measures than vaccination in place

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

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

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

NO DATA AVAILABLE

Meat production flocks

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

Table Salmonella in breeding flocks of Gallus gallus

	No of flocks under control programme	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Target Verification	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis
Gallus gallus (fowl) - breeding flocks, unspecified - adult - Control and eradication programmes	53	Veterinary Services	Census	Official and industry sampling	environmental sample > boot swabs and dust		no	Flock	50	10	5

	S. Hadar	S. Infantis	S. Typhimurium	S. Virchow	S. 1,4,[5],12:i:-	Salmonella spp., unspecified	S. Blockley	S. Kentucky	S. Senftenberg
Gallus gallus (fowl) - breeding flocks, unspecified - adult - Control and eradication programmes	0	0	0	0	0	1	1	2	1

Table Salmonella in other birds

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Pigeons - at farm - Monitoring		Unspecified	Official sampling	animal sample		Animal	1	0			
Quails - at farm - Monitoring		Unspecified	Official sampling	animal sample		Animal	3	0			
Pheasants - Monitoring		Unspecified	Official sampling	animal sample		Animal	1	0			
Partridges - farmed - at farm - Monitoring		Unspecified	Official sampling	animal sample		Animal	15	0			
Ostriches - farmed - at farm - Monitoring						---					
Canary - pet animals - Unspecified		Unspecified	Official sampling	animal sample		Animal	9	1		1	
Ducks - pet animals		Unspecified	Official sampling	animal sample		Animal	1	0			
Other poultry - unspecified - Unspecified							4	0			
Parrots - pet animals - unspecified - Clinical investigations		Unspecified	Official sampling	animal sample		Animal	4	0			

Table Salmonella in other animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	S. 1,4,[5],12:i:-
Cattle (bovine animals) - calves (under 1 year) - at farm - Monitoring	Veterinary Services	Suspect sampling	Official sampling	animal sample			5	1	0	0	0

	Salmonella spp., unspecified	S. Goldcoast
Cattle (bovine animals) - calves (under 1 year) - at farm - Monitoring	0	1

Table Salmonella in other poultry

	No of flocks under control programme	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Target Verification	Sampling unit	Units tested	Total units positive for Salmonella	S. Enteritidis
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	39	Veterinary Services	Selective sampling	Official sampling	environmental sample > boot swabs and dust		yes	Flock	69	16	4
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	11	Veterinary Services	Selective sampling	Official sampling	environmental sample > boot swabs		yes	Holding	9	2	1
Turkeys - breeding flocks, unspecified - adult - at farm - Control and eradication programmes			Census	Official and industry sampling			yes				
Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	3	Veterinary Services	Selective sampling	Official sampling	environmental sample > boot swabs		yes	Flock	11	1	0

	S. Typhimurium	S. 1,4,[5],12:i:-	Salmonella spp., unspecified
Gallus gallus (fowl) - laying hens - adult - at farm - Control and eradication programmes	0	0	12
Gallus gallus (fowl) - broilers - before slaughter - at farm - Control and eradication programmes	0	0	1
Turkeys - breeding flocks, unspecified - adult - at farm - Control and eradication programmes			
Turkeys - fattening flocks - before slaughter - at farm - Control and eradication programmes	0	0	1

Table Salmonella in other poultry

2.1.5 Salmonella serovars and phagetype distribution

The methods of collecting, isolating and testing of the Salmonella isolates are described in the chapters above respectively for each animal species, foodstuffs and humans. The serotype and phagetype distributions can be used to investigate the sources of the Salmonella infections in humans. Findings of same serovars and phagetypes in human cases and in foodstuffs or animals may indicate that the food category or animal species in question serves as a source of human infections. However as information is not available from all potential sources of infections, conclusions have to be drawn with caution.

Table Salmonella serovars in animals

Serovar	Cattle (bovine animals)				Pigs				Gallus gallus (fowl)				Other poultry
Sources of isolates	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program
Number of isolates in the laboratory	0	0	1	0	0	0	0	0	32	0	0	0	1
Number of isolates serotyped	0	0	1	0	0	0	0	0	31	0	0	0	1
Number of isolates per serovar													
S. Anatum	0	0	0	0	0	0	0	0	1	0	0	0	0
S. Blockley	0	0	0	0	0	0	0	0	2	0	0	0	0
S. Bredeney	0	0	0	0	0	0	0	0	1	0	0	0	0
S. Enteritidis	0	0	0	0	0	0	0	0	10	0	0	0	0
S. Goldcoast	0	0	1	0	0	0	0	0	0	0	0	0	0
S. Hadar	0	0	0	0	0	0	0	0	1	0	0	0	0

Table Salmonella serovars in animals

Serovar	Cattle (bovine animals)				Pigs				Gallus gallus (fowl)				Other poultry
Sources of isolates	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program	Monitoring	Clinical	Surveillance	Control program
Number of isolates in the laboratory	0	0	1	0	0	0	0	0	32	0	0	0	1
Number of isolates serotyped	0	0	1	0	0	0	0	0	31	0	0	0	1
Number of isolates per serovar													
S. Infantis	0	0	0	0	0	0	0	0	1	0	0	0	0
S. Kedougou	0	0	0	0	0	0	0	0	1	0	0	0	0
S. Kentucky	0	0	0	0	0	0	0	0	3	0	0	0	0
S. Livingstone	0	0	0	0	0	0	0	0	1	0	0	0	0
S. Mishmarhaemek	0	0	0	0	0	0	0	0	2	0	0	0	0
S. Muenchen	0	0	0	0	0	0	0	0	1	0	0	0	0
S. Paratyphi B	0	0	0	0	0	0	0	0	0	0	0	0	1
S. Senftenberg	0	0	0	0	0	0	0	0	1	0	0	0	0
S. Typhimurium	0	0	0	0	0	0	0	0	0	0	0	0	0
S. Virchow	0	0	0	0	0	0	0	0	5	0	0	0	0
S. Virginia	0	0	0	0	0	0	0	0	1	0	0	0	0

Table Salmonella serovars in animals

Serovar / Sources of isolates	Other poultry		
	Monitoring	Clinical	Surveillance
Number of isolates in the laboratory	0	1	0
Number of isolates serotyped	0	1	0
Number of isolates per serovar			
S. Anatum	0	0	0
S. Blockley	0	0	0
S. Bredeney	0	0	0
S. Enteritidis	0	0	0
S. Goldcoast	0	0	0
S. Hadar	0	0	0
S. Infantis	0	0	0
S. Kedougou	0	0	0
S. Kentucky	0	0	0
S. Livingstone	0	0	0
S. Mishmarhaemek	0	0	0

Table Salmonella serovars in animals

Serovar / Sources of isolates	Other poultry		
	Monitoring	Clinical	Surveillance
Number of isolates in the laboratory	0	1	0
Number of isolates serotyped	0	1	0
Number of isolates per serovar			
S. Muenchen	0	0	0
S. Paratyphi B	0	0	0
S. Senftenberg	0	0	0
S. Typhimurium	0	1	0
S. Virchow	0	0	0
S. Virginia	0	0	0

Table Salmonella serovars in food

Serovar	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin		Milk, cows' - raw milk - at farm - Monitoring		Other food of non-animal origin - at border control - Monitoring
Sources of isolates	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring
Number of isolates in the laboratory		1									3		30
Number of isolates serotyped	0	1	0	0	0	0	0	0	0	0	3	0	30
Number of isolates per serovar													
Other serovars													21
S. 1,3,19:-:-													1
S. Infantis													
S. Kedougou													2
S. Livingstone													1
S. Mbandaka													1
S. Mishmarhaemek											1		
S. Montevideo											1		
S. Senftenberg													1

Table Salmonella serovars in food

Serovar	Meat from bovine animals		Meat from pig		Meat from broilers (Gallus gallus)		Meat from other poultry species		Other products of animal origin		Milk, cows' - raw milk - at farm - Monitoring		Other food of non-animal origin - at border control - Monitoring
Sources of isolates	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring	Surveillance	Monitoring
Number of isolates in the laboratory		1									3		30
Number of isolates serotyped	0	1	0	0	0	0	0	0	0	0	3	0	30
Number of isolates per serovar													
S. Telaviv											1		
S. Tennessee													3
S. Typhimurium		1											

Table Salmonella serovars in food

Serovar	Other food of non-animal origin - at border control - Monitoring	Water - potable water - unspecified - Clinical investigations	
Sources of isolates	Surveillance	Monitoring	Surveillance
Number of isolates in the laboratory		1	
Number of isolates serotyped	0	1	0
Number of isolates per serovar			
Other serovars			
S. 1,3,19:-:-			
S. Infantis		1	
S. Kedougou			
S. Livingstone			
S. Mbandaka			
S. Mishmarhaemek			
S. Montevideo			
S. Senftenberg			
S. Telaviv			

Table Salmonella serovars in food

Serovar	Other food of non-animal origin - at border control - Monitoring	Water - potable water - unspecified - Clinical investigations	
Sources of isolates	Surveillance	Monitoring	Surveillance
Number of isolates in the laboratory		1	
Number of isolates serotyped	0	1	0
Number of isolates per serovar			
S. Tennessee			
S. Typhimurium			

Footnote:

Other food of non-animal origin (Animal feed)-at border control:
The sampling was carried out by the Department of Agriculture which is the competent authority for the control of animal feed.
OTHER SEROVARS: S. Ouakam

2.1.6 Antimicrobial resistance in Salmonella isolates

A. Antimicrobial resistance in Salmonella in cattle

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

B. Antimicrobial resistance in Salmonella in foodstuff derived from cattle

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

C. Antimicrobial resistance in Salmonella in foodstuff derived from pigs

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

D. Antimicrobial resistance in Salmonella in foodstuff derived from poultry

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

E. Antimicrobial resistance in Salmonella in pigs

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

F. Antimicrobial resistance in Salmonella in poultry

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

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

Salmonella	S. Enteritidis		S. Typhimurium		S. 1,4,[5],12:i:-		Salmonella spp.	
Isolates out of a monitoring program (yes/no)	yes		yes		yes		yes	
Number of isolates available in the laboratory	5		0		0		18	
Antimicrobials:	N	n	N	n	N	n	N	n
Aminoglycosides - Gentamicin	5	0					18	3
Aminoglycosides - Streptomycin	5	0					18	6
Amphenicols - Chloramphenicol	5	0					18	1
Cephalosporins - 3rd generation cephalosporins	5	0					18	1
Fluoroquinolones - Ciprofloxacin	5	0					18	4
Penicillins - Ampicillin	5	0					18	4
Quinolones - Nalidixic acid	5	0					18	3
Sulfonamides	5	0					18	4
Tetracyclines - Tetracycline	5	0					18	6
Trimethoprim	5	0					18	4
Fully sensitive	5	5					18	0
Resistant to 1 antimicrobial	5	0					18	0
Resistant to 2 antimicrobials	5	0					18	1
Resistant to 3 antimicrobials	5	0					18	1
Resistant to 4 antimicrobials	5	0					18	0
Resistant to >4 antimicrobials	5	0					18	4

Table Antimicrobial susceptibility testing of Salmonella in Turkeys

Salmonella	S. Enteritidis		S. Typhimurium		S. 1,4,[5],12:i:-		S. Saintpaul		Salmonella spp.	
Isolates out of a monitoring program (yes/no)	yes		yes		yes		yes		yes	
Number of isolates available in the laboratory	0		0		0		0		1	
Antimicrobials:	N	n	N	n	N	n	N	n	N	n
Aminoglycosides - Gentamicin									1	0
Aminoglycosides - Streptomycin									1	0
Amphenicols - Chloramphenicol									1	0
Cephalosporins - 3rd generation cephalosporins									1	0
Fluoroquinolones - Ciprofloxacin									1	1
Penicillins - Ampicillin									1	0
Quinolones - Nalidixic acid									1	1
Sulfonamides									1	1
Tetracyclines - Tetracycline									1	1
Trimethoprim									1	1
Fully sensitive									1	0
Resistant to 1 antimicrobial									1	0
Resistant to 2 antimicrobials									1	0
Resistant to 3 antimicrobials									1	0
Resistant to 4 antimicrobials									1	0
Resistant to >4 antimicrobials									1	1

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

Salmonella	S. Enteritidis		S. Typhimurium		S. 1,4,[5],12:i:-		Salmonella spp.	
Isolates out of a monitoring program (yes/no)	yes		yes		yes		yes	
Number of isolates available in the laboratory	4		0		0		17	
Antimicrobials:	N	n	N	n	N	n	N	n
Aminoglycosides - Gentamicin	4	0					17	2
Aminoglycosides - Streptomycin	4	0					17	5
Amphenicols - Chloramphenicol	4	0					17	0
Cephalosporins - 3rd generation cephalosporins	4	0					17	0
Fluoroquinolones - Ciprofloxacin	4	0					17	3
Penicillins - Ampicillin	4	0					17	3
Quinolones - Nalidixic acid	4	0					17	2
Sulfonamides	4	0					17	3
Tetracyclines - Tetracycline	4	0					17	5
Trimethoprim	4	0					17	3
Fully sensitive	4	4					17	0
Resistant to 1 antimicrobial	4	0					17	0
Resistant to 2 antimicrobials	4	0					17	1
Resistant to 3 antimicrobials	4	0					17	1
Resistant to 4 antimicrobials	4	0					17	0
Resistant to >4 antimicrobials	4	0					17	3

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

Salmonella	S. Enteritidis		S. Typhimurium		S. 1,4,[5],12:i:-		S. Paratyphi B var. Java		Salmonella spp.	
Isolates out of a monitoring program (yes/no)	yes		yes		yes		yes		yes	
Number of isolates available in the laboratory	1		0		0		0		1	
Antimicrobials:	N	n	N	n	N	n	N	n	N	n
Aminoglycosides - Gentamicin	1	0							1	1
Aminoglycosides - Streptomycin	1	0							1	1
Amphenicols - Chloramphenicol	1	0							1	1
Cephalosporins - 3rd generation cephalosporins	1	0							1	1
Fluoroquinolones - Ciprofloxacin	1	0							1	1
Penicillins - Ampicillin	1	0							1	1
Quinolones - Nalidixic acid	1	0							1	1
Sulfonamides	1	0							1	1
Tetracyclines - Tetracycline	1	0							1	1
Trimethoprim	1	0							1	1
Fully sensitive	1	1							1	0
Resistant to 1 antimicrobial	1	0							1	0
Resistant to 2 antimicrobials	1	0							1	0
Resistant to 3 antimicrobials	1	0							1	0
Resistant to 4 antimicrobials	1	0							1	0
Resistant to >4 antimicrobials	1	0							1	1

Table Cut-off values for antibiotic resistance testing of Salmonella in Animals

Test Method Used	Standard methods used for testing
Broth dilution	NCCLS/CLSI EUCAST

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin	EFSA	2	
	Streptomycin	EFSA	32	
Amphenicols	Chloramphenicol	EFSA	16	
Cephalosporins	Cefotaxime	EFSA	0.5	
Fluoroquinolones	Ciprofloxacin	EFSA	0.06	
Penicillins	Ampicillin	EFSA	4	
Quinolones	Nalidixic acid	EFSA	16	
Sulfonamides	Sulfonamides	EFSA	256	
Tetracyclines	Tetracycline	EFSA	8	
Trimethoprim	Trimethoprim	EFSA	2	

Table Cut-off values for antibiotic resistance testing of Salmonella in Feed

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		32	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.5	
Fluoroquinolones	Ciprofloxacin		0.06	
Penicillins	Ampicillin		4	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

Table Cut-off values for antibiotic resistance testing of Salmonella in Food

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		32	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.5	
Fluoroquinolones	Ciprofloxacin		0.06	
Penicillins	Ampicillin		4	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

2.2 CAMPYLOBACTERIOSIS

2.2.1 General evaluation of the national situation

A. Thermophilic Campylobacter general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.2.2 Campylobacteriosis in humans

A. Thermophilic Campylobacter in humans

Reporting system in place for the human cases

YES SINCE JANUARY 2005

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/analytical methods used

EU RECOMMENDED MICROBIOLOGY LABORATORY RECOMMENDED CRITERIA FOR DIAGNOSIS

Notification system in place

QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS. MANDATORY NOTIFIABLE SINCE JANUARY 2005

History of the disease and/or infection in the country

NOT APPLICABLE

Results of the investigation

NOT APPLICABLE

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

NOT APPLICABLE

Relevance as zoonotic disease

IT HAS RECENTLY BEEN DECLARED MANDATORY NOTIFIABLE DISEASE AND THEREFORE NO DATA ARE AVAILABLE FOR 2004.

Additional information

The relevant data for 2011 will be submitted by the colleagues of the Ministry of Health through the ECDC network.

2.2.3 Campylobacter in foodstuffs

A. Thermophilic Campylobacter in Broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Definition of positive finding

At slaughterhouse and cutting plant

NO DATA AVAILABLE

At meat processing plant

NO DATA AVAILABLE

At retail

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

Table Campylobacter in other food

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Campylobacter	C. coli	C. jejuni
Meat from rabbit - carcase - chilled - at slaughterhouse - Surveillance	Veterinary Services, LCFAO		Official sampling	food sample > meat		Slaughter batch		20	0	0	0

	C. lari	C. upsaliensis	Thermophilic Campylobacter spp., unspecified
Meat from rabbit - carcase - chilled - at slaughterhouse - Surveillance	0	0	0

2.2.4 Campylobacter in animals

A. Thermophilic Campylobacter in Gallus gallus

Monitoring system

Sampling strategy

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Rearing period

NO DATA AVAILABLE

Before slaughter at farm

NO DATA AVAILABLE

At slaughter

NO DATA AVAILABLE

Case definition

Rearing period

NO DATA AVAILABLE

Before slaughter at farm

NO DATA AVAILABLE

At slaughter

NO DATA AVAILABLE

Vaccination policy

NO DATA AVAILABLE

Other preventive measures than vaccination in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.2.5 Antimicrobial resistance in Campylobacter isolates

A. Antimicrobial resistance in Campylobacter jejuni and coli in cattle

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

B. Antimicrobial resistance in Campylobacter jejuni and coli in foodstuff derived from cattle

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

C. Antimicrobial resistance in Campylobacter jejuni and coli in foodstuff derived from pigs

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

D. Antimicrobial resistance in Campylobacter jejuni and coli in foodstuff derived from poultry

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

E. Antimicrobial resistance in Campylobacter jejuni and coli in pigs

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

F. Antimicrobial resistance in Campylobacter jejuni and coli in poultry

Sampling strategy used in monitoring

Frequency of the sampling

NO DATA AVAILABLE

Type of specimen taken

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing

NO DATA AVAILABLE

Methods used for collecting data

NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates

NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring

NO DATA AVAILABLE

Cut-off values used in testing

NO DATA AVAILABLE

Preventive measures in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

Table Cut-off values used for antimicrobial susceptibility testing of C. coli in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		4	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		16	
Tetracyclines	Tetracycline		2	

Table Cut-off values used for antimicrobial susceptibility testing of C. coli in Feed

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		4	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		16	
Tetracyclines	Tetracycline		2	

Table Cut-off values used for antimicrobial susceptibility testing of C. coli in Food

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		4	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		16	
Tetracyclines	Tetracycline		2	

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		1	
	Streptomycin		2	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		4	
Tetracyclines	Tetracycline		2	

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Feed

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		1	
	Streptomycin		2	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		4	
Tetracyclines	Tetracycline		2	

Table Cut-off values used for antimicrobial susceptibility testing of C. jejuni in Food

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		1	
	Streptomycin		2	
Fluoroquinolones	Ciprofloxacin		1	
Macrolides	Erythromycin		4	
Tetracyclines	Tetracycline		2	

2.3 LISTERIOSIS

2.3.1 General evaluation of the national situation

A. Listeriosis general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.3.2 Listeriosis in humans

A. Listeriosis in humans

Reporting system in place for the human cases

YES, SINCE JANUARY 2005

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/analytical methods used

EU RECOMMENDED MICROBIOLOGY LABORATORY CRITERIA

Notification system in place

QUARANTINE (PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS. MANDATORY NOTIFIABLE SINCE JANUARY 2005

History of the disease and/or infection in the country

NOT APPLICABLE

Results of the investigation

NOT APPLICABLE

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

NOT APPLICABLE

Relevance as zoonotic disease

IT HAS RECENTLY BEEN DECLARED AS A MANDATORY NOTIFIABLE DISEASE AND THEREFORE NO DATA ARE AVAILABLE FOR 2004.

Additional information

The report of these data will be done by the colleagues of the Ministry of Health through the ECDC database network.

2.3.3 Listeria in foodstuffs

Table Listeria monocytogenes in milk and dairy products

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for L. monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g
Cheeses, made from mixed milk from cows, sheep and/or goats - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	1213	0	1213	0
Cheeses, made from mixed milk from cows, sheep and/or goats - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	270	0	270	0
Dairy products (excluding cheeses) - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	5	0	5	0
Dairy products (excluding cheeses) - cream - made from pasteurised milk - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	25	0	25	0
Dairy products (excluding cheeses) - fermented dairy products - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	60	0	60	0
Dairy products (excluding cheeses) - yoghurt - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	475	0	475	0
Milk, cows' - pasteurised milk - at processing plant - domestic production - Surveillance	LCFAO		Official sampling	food sample > milk		Batch	25 g	19	0	19	0
Other products of animal origin - at processing plant - domestic production - Surveillance (Trachanas)	LCFAO		Official sampling	food sample		Batch	25 g	30	0	30	0

Table Listeria monocytogenes in milk and dairy products

	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Cheeses, made from mixed milk from cows, sheep and/or goats - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance	0	0	0
Cheeses, made from mixed milk from cows, sheep and/or goats - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance	0	0	0
Dairy products (excluding cheeses) - at processing plant - Surveillance	0	0	0
Dairy products (excluding cheeses) - cream - made from pasteurised milk - Surveillance	0	0	0
Dairy products (excluding cheeses) - fermented dairy products - at processing plant - domestic production - Surveillance	0	0	0
Dairy products (excluding cheeses) - yoghurt - Surveillance	0	0	0
Milk, cows' - pasteurised milk - at processing plant - domestic production - Surveillance	0	0	0
Other products of animal origin - at processing plant - domestic production - Surveillance (Trachanas)	0	0	0

Table Listeria monocytogenes in other foods

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for L. monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25 g	20	0	20	0
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance	LCFAO		Official sampling	food sample		Batch	25g	5	0	5	0
Meat from pig - fresh - at processing plant - Surveillance	LCFAO										
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25g	420	5	420	
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance	LCFAO		Official sampling	food sample		Batch	25g	55	0	55	0
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch	25g	15	5	15	
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance	LCFAO		Official sampling	food sample		Batch	25g	10	5	5	
Fish - smoked - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch		65	7	65	
Crustaceans - unspecified - cooked - at processing plant - Surveillance	LCFAO		Official sampling	food sample		Batch		5	0	5	0
Crustaceans - unspecified - cooked - at retail - Surveillance	LCFAO		Official sampling	food sample		Batch	25g	30	0	30	0
Molluscan shellfish - cooked - at retail - Surveillance	LCFAO		Official sampling	food sample		Batch	25g	5	0	5	0

Table Listeria monocytogenes in other foods

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for L. monocytogenes	Units tested with detection method	Listeria monocytogenes presence in x g
Ready-to-eat salads	LCFAO		Official sampling	food sample		Batch	25g	5	0	5	0

	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at processing plant - Surveillance	0	0	0
Meat from broilers (Gallus gallus) - meat products - cooked, ready-to-eat - at retail - Surveillance	0	0	0
Meat from pig - fresh - at processing plant - Surveillance			
Meat from pig - meat products - cooked, ready-to-eat - at processing plant - Surveillance	5	5	0
Meat from pig - meat products - cooked, ready-to-eat - at retail - Surveillance	0	0	0
Meat from bovine animals - meat products - cooked, ready-to-eat - at processing plant - Surveillance	5	5	0
Meat from bovine animals - meat products - cooked, ready-to-eat - at retail - Surveillance	5	5	0
Fish - smoked - at processing plant - Surveillance	7	7	0

Table Listeria monocytogenes in other foods

	Units tested with enumeration method	> detection limit but <= 100 cfu/g	L. monocytogenes > 100 cfu/g
Crustaceans - unspecified - cooked - at processing plant - Surveillance	0	0	0
Crustaceans - unspecified - cooked - at retail - Surveillance	0	0	0
Molluscan shellfish - cooked - at retail - Surveillance	0	0	0
Ready-to-eat salads	0	0	0

2.4 E. COLI INFECTIONS

2.4.1 General evaluation of the national situation

A. Verotoxigenic Escherichia coli infections general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.4.2 E. coli infections in humans

A. Verotoxigenic Escherichia coli infections in humans

Reporting system in place for the human cases

YES, SINCE JANUARY 2005 FOLLOWING AMENDMENT OF THE LEGISLATION

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/analytical methods used

EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSIS

Notification system in place

QUARANTINE (PUBLIC HEALTH)LAW AND REGULATIONS AND THEIR AMENDMENTS.NOTIFIABLE SINCE JANUARY 2005

History of the disease and/or infection in the country

NOT APPLICABLE

Results of the investigation

NOT APPLICABLE

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

NOT APPLICABLE

Additional information

The relevant data will be submitted by the colleagues of the Ministry of Health through the ECDC network.

2.4.3 Escherichia coli, pathogenic in foodstuffs

Table VT E. coli in food

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Analytical Method	Sampling unit	Sample weight	Units tested	Total units positive for Verotoxigenic E. coli (VTEC)	Verotoxigenic E. coli (VTEC) - VTEC O157
Meat from bovine animals - meat preparation - intended to be eaten cooked - frozen - at retail - imported - Surveillance	LCFAO		Official sampling	food sample > meat		ISO 16654:2001	Batch	25 g	5	0	0

	Verotoxigenic E. coli (VTEC) - VTEC non-O157	Verotoxigenic E. coli (VTEC) - VTEC, unspecified
Meat from bovine animals - meat preparation - intended to be eaten cooked - frozen - at retail - imported - Surveillance	0	0

2.4.4 Escherichia coli, pathogenic in animals

A. Verotoxigenic Escherichia coli in cattle (bovine animals)

Monitoring system

Sampling strategy

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Animals at farm

NO DATA AVAILABLE

Animals at slaughter (herd based approach)

NO DATA AVAILABLE

Case definition

Animals at farm

NO DATA AVAILABLE

Animals at slaughter (herd based approach)

NO DATA AVAILABLE

Vaccination policy

NO DATA AVAILABLE

Other preventive measures than vaccination in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.5 TUBERCULOSIS, MYCOBACTERIAL DISEASES

2.5.1 General evaluation of the national situation

A. Tuberculosis general evaluation

History of the disease and/or infection in the country

Tuberculin test campaigns have been applied since 1970 on all bovines over the age of six months. No case of TB has been found in Cyprus since 1970. The 1975 campaign was assisted by FAO's epizootiologist Dr. Petar Markovic. Since 1986 tuberculin test had been applied only on bovines over the age of 24 months. Records indicate that tests on herd level were performed during the following periods: 1982-83, 1986-87-88, 1994-95, and 2000-2001.The records prove that the animals which have initially reacted positively or inconclusively to the tuberculin test were retested according to Directive 64/432/EEC provisions and all proved to be negative. Animals to enter the herds did not require testing for tuberculosis as these animals were originating from herds located in the territory of Cyprus in which the Government of Cyprus excercises effective control; thus regularly tested for TB. All slaughtered animals and their carcasses are necrotomicaly checked, prior been given to the meat industry for human consumption, for possible presence of TB lesions.An island wide tuberculin test campaign began in 2004 according to Directive 64/432/EEC provisions.

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

In 2011, 273 holdings beared the Bovine Tuberculosis Officially Free Status (BTBOFS) with the target number of holdings been 324 in total.

Recent actions taken to control the zoonoses

The national tuberculin test campaign which had begun in August 2004 according to Directive 64/432/EEC provisions continues. This program aims to examine all bovines over the age of six weeks and to assign to all the herds the Officially Free Status.

2.5.2 Tuberculosis, mycobacterial diseases in humans

A. Tuberculosis due to Mycobacterium bovis in humans

Reporting system in place for the human cases

YES, SINCE 1932.

Case definition

EU RECOMMENDED CASE DEFINITION.

Diagnostic/analytical methods used

EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSTIC CRITERIA.

Notification system in place

QUARANTINE (PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS.

History of the disease and/or infection in the country

BOVINE TB HASN'T BEEN A PROBLEM FOR HUMANS IN CYPRUS.

Relevance as zoonotic disease

THOUGH BOVINE TUBERCULOSIS IS NOT A PROBLEM IN HUMANS IN CYPRUS, WE RECOGNISE THE NEED FOR CONTINUOUS COLLABORATION IN THE AREA WITH THE VETERINARY SERVICES AS WELL AS ACTIVE SURVEILLANCE.

Additional information

The updated data for TB in humans for 2011 will be furnished by the colleagues of the Ministry of Health through the ECDC.

2.5.3 Mycobacterium in animals

A. Mycobacterium bovis in bovine animals

Status as officially free of bovine tuberculosis during the reporting year

The entire country free

At the end of 2011, 273 holdings were bearing the Bovine Tuberculosis Officially Free Status (BTBOFS). The target number of holdings was 324.

Monitoring system

Sampling strategy

All animals above the age of six weeks are tested for TB. In order for a holding to be assigned the BTBOFS its animals must undergo two consecutive tuberculin tests within a minimum of a six month time interval. The holding retains its TBOFS if all its animals above six weeks of age are subjected to tuberculin testing every year.

Frequency of the sampling

Bovines above six weeks of age must undergo two consecutive tuberculin tests within a minimum period of a six month time interval. A holding retains its TBOFS if all its animals are subjected to tuberculin test every year.

Type of specimen taken

Tuberculosis skin reaction.

Methods of sampling (description of sampling techniques)

As described in Annex A of the EU Directive 64/432/EEC.

Case definition

If an animal yields a positive reaction to the single intradermal test (Bovine tuberculin) it is further examined with the comparative intradermal test (Bovine and Avian tuberculin).

If it yields a positive reaction to the second test it is considered positive; the animal is slaughtered, necrotomically examined for tuberculosis' lesions and samples are taken for laboratory in order to detect M. bovis in the case of positive necrotomical findings.

Diagnostic/analytical methods used

1) Single and comparative Tuberculin skin tests (Bovine and Avian tuberculin)

2) Post-mortem examination.

3) Microbiological examination.

Vaccination policy

Not applicable.
Following the completion of the first tuberculin test no animal over six weeks old is allowed to enter the herd, unless it reacts negatively to an intradermal tuberculin test carried out either 30 days prior to the movement or 30 days after its introduction into the herd.

Other preventive measures than vaccination in place

Following the completion of the first tuberculin test no animal over six weeks old is allowed to enter the herd, unless it reacts negatively to an intradermal tuberculin test carried out either 30 days prior to the movement or 30 days after its introduction into the herd.

Control program/mechanisms

The control program/strategies in place

The control program aims to examine all bovines over the age of six weeks according to the provisions of Directive 64/432/EEC. The main objective of the program is to assign to bovine herds the Bovine Tuberculosis Officially Free Status (BTBOFS).

Recent actions taken to control the zoonoses

Testing, monitoring and surveillance.

Measures in case of the positive findings or single cases

The animal is slaughtered and samples are taken for the laboratory (microbiological) isolation of M. bovis. Movement restrictions are imposed on the herd and the milk must be pasteurized.

If the presence of tuberculosis is not confirmed laboratorily, the already applied movement restrictions are lifted following a negative test applied on all animals over six weeks of age.

The test is conducted at least 42 days after the removal of the reactors animals.

On the other hand if tuberculosis is laboratorily confirmed, movement restrictions are lifted when cleansing and disinfection of the premises and utensils has been completed and all animals over six weeks of age have reacted negatively to at least two consecutive tuberculin tests. The first one conducted not less than 60 days and the second not less than four months and no more than 12 after the removal of the last positive animal.

Notification system in place

It has always been a notifiable in Cyprus and any occurrence of the disease is obligatory notifiable to the Veterinary Services by law. No case has been reported since 1928.

Results of the investigation

At the end of 2011, 273 holdings were bearing the Bovine Tuberculosis Officially Free Status (BTBOFS). The target number of holdings was 324.

B. Mycobacterium bovis in farmed deer

Monitoring system

Sampling strategy

Not applied as no deer farming is practiced in Cyprus.

Frequency of the sampling

Not applied.

Methods of sampling (description of sampling techniques)

Not applied.

Case definition

Not applied.

Diagnostic/analytical methods used

Not applied.

Vaccination policy

Not applied.

Other preventive measures than vaccination in place

Not applied.

Control program/mechanisms

The control program/strategies in place

Not applied.

Recent actions taken to control the zoonoses

Not applied.

Suggestions to the Community for the actions to be taken

Not applied.

Measures in case of the positive findings or single cases

Not applied.

Notification system in place

Not applied.

Results of the investigation

Not applied.

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

Not applied.

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

Not applied.

Additional information

Not applied.

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

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of existing bovine		Officially free herds		Infected herds		Routine tuberculin testing		Number of tuberculin tests carried out before the introduction into the herds (Annex A(I)(2)(c) third indent (1) of Directive 64/432/EEC)	Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological	Number of animals detected positive in bacteriological examination
	Herds	Animals	Number of herds	%	Number of herds	%	Interval between routine tuberculin tests	Number of animals tested			
Κύπρος / Kıbrıs [1)]	324	56374	273	84.26	0	0	Officially frees herds are	40642			
Total : [2)]	324	56374	273	84.26	0	0	N.A.	40642	0	0	0

Comments:

[1)] ALL REGIONS

[2)] N.A.

Footnote:

The total number of existing bovine herds and bovine animals as per the Bovine Tuberculosis refers to the bovine herds and bovine animals under the Tuberculosis erradication and control program applied.

2.6 BRUCELLOSIS

2.6.1 General evaluation of the national situation

A. Brucellosis general evaluation

History of the disease and/or infection in the country

The causative agent of brucellosis in Cyprus at both bovine and sheep / goats is Brucella melitensis. Brucellosis caused by Brucella abortus has never been diagnosed in Cyprus (with the exception of the period 1921 to 1932, when it was imported in the island by cattle that were brought from the U.K.). As of 2001 a brucellosis eradication programme is applied on the area controlled by the Veterinary Services of the Republic of Cyprus.

Evolution of Brucellosis in Cyprus:
1930 to 1932
Brucellosis was found in goats imported from Malta (no spread)
1964
One outbreak in a bovine herd
1970 to 1973
Sporadic outbreaks
1973 to 1985
National Eradication program against Brucellosis
Successful test and slaughter eradication campaign
1985 1997
No outbreaks of the disease
1997 to 2000
Reappearance of the disease
2001
Beginning of Brucellosis Eradication and Elimination Project

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

According to the epidemiological data, from 2000 until the end of 2009, the prevalence and incidence of bovine, as well as, ovine and caprine brucellosis in Cyprus have decreased dramatically.

Possible sources of infection in a herd or a flock are:
Â·the neighboring with known infected farms (most common)
Â·common use of machines
Â·illegal movements of animals from known infected farms
Â·sharing of pasture
Â·mechanical vectors (e.g. lorries of traders)

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

There were no human cases of brucellosis during 2009.

Recent actions taken to control the zoonoses

The brucellosis eradication programme is applied at the area controlled by the Veterinary Services of the Republic of Cyprus as of 2001.

2.6.2 Brucellosis in humans

A. Brucellosis in humans

Reporting system in place for the human cases

YES, SINCE 1983

Case definition

EU RECOMMENDED CASE DEFINITION SINCE JANUARY 2004

Diagnostic/analytical methods used

EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSTIC CRITERIA SINCE JANUARY 2004

Notification system in place

QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND AMENDMENTS. MANDATORY NOTIFIABLE.

History of the disease and/or infection in the country

SPORADIC CASES OF BRUCELLOSIS WERE REPORTED OVER THE YEARS. THE ONLY CASE IN 2004 WAS OCCUPATION RELATED

Relevance as zoonotic disease

SPORADIC CASES OF BRUCELLOSIS WERE REPORTED OVER THE YEARS. THERE IS A CONTINUOUS COLLABORATION WITH THE VETERINARY SERVICES, AS ON THE AREA CONTROLLED BY THE VETERINARY SERVICES OF THE REPUBLIC OF CYPRUS. A BRUCELLOSIS ERADICATION PROGRAMME IS IN PLACE AS OF 2001. CLINICIANS ARE ALERTED ABOUT THE POSSIBILITY OF DIAGNOSIS AND A SYSTEM FOR SURVEILLANCE IS IN PLACE

Additional information

Te data concerning the human cases of Brucellosis will be registered by the colleagues of the Ministry of health through the ECDC network.

2.6.3 Brucella in animals

A. Brucella abortus in bovine animals

Status as officially free of bovine brucellosis during the reporting year

The entire country free

Not Applicable

Free regions

Monitoring system

Frequency of the sampling

Vaccination policy

B. Brucella melitensis in goats

Status as officially free of caprine brucellosis during the reporting year

The entire country free

Not Applicable

Vaccination policy

Vaccination is prohibited

C. Brucella melitensis in sheep

Status as officially free of ovine brucellosis during the reporting year

The entire country free

Not Applicable

D. B. melitensis in animal - Cattle (bovine animals)

Monitoring system

Sampling strategy

At infected and suspected herds sampling is targeted.
Concerning the other herds; sampling is part of a permanent monitoring scheme.
Samples are collected at farm level, by the employees of the Veterinary Services.

Frequency of the sampling

Infected farms: Monthly blood sampling of all animals over 12 months. Cultures from milk samples from the seropositive animals in new outbreaks and from fetuses (in any case of abortion)
Non infected farms: Cultures from milk samples and fetuses from aborting animals. Bulk milk samples every 3 months from all herds having more than 10 dairy cows. Blood sampling of all animals over 12 months old once a year in non officially free herds.
Farms with less than 10 individuals over 12 months old: Blood sampling of all animals over 12 months old twice a year in non officially free herds. For officially free herds blood sampling of all animals over 12 months old once a year.

Type of specimen taken

Blood, Milk, Fetuses

Methods of sampling (description of sampling techniques)

Blood samples are taken by venipuncture from the caudal vein. Blood is collected in tubes (4 ml). Milk is collected in screw cup bottles (30 ml). Samples are stored at 2-40C, for one week at the most for blood samples and 2-3 days for milk samples.

Case definition

As a positive case is defined a case when an animal reacts positively at Rose Bengal test and CFT test (> 20 ICFTU).

Diagnostic/analytical methods used

All materials, reagents and procedures used are based to the relevant EEC legislation (Dir 91/68/EEC and 64/432/EEC) and the OIE Manual of diagnostic tests and vaccines for terrestrial animals (mammals, birds and bees) 5th ed, 2004.

Bulk milk ELISA: Commercially available kits are used that fulfill the requirements of the references mentioned above. The procedures used are according to the manufacturers directions.

Rose Bengal test: 30 Î¼l of serum and antigen are mixed on tiles to produce a zone of appr 2 cm. The mixture is rocked using a rotating shaker for 4 min and then observed for agglutination. Any degree of agglutination is considered positive. In each day test a positive and a negative control is used. The Rose Bengal antigen is commercially purchased and is manufactured according to the specifications given in the above mentioned references.

Complement fixation test: Dilution of serum starts from Â¼ until 1/256, sera are inactivated in water bath in tubes and then transferred to 96 well U micro plates. Warm fixation follows. All reagents are commercially purchased and each time the batch or the company changes titration of the reagents takes place. In each day test controls of complement, antigen, blood as well as positive and negative controls are used. Also, for each sample examined there is anticomplimentary control.

Isolation: On Brucella medium incubating in 37oC with and without CO2. Confirmation on the species

level: Dye of the colony with Gram and Stamp. Culture on Mc Conkey agar (lactose fermentation) and Blood agar (Haemolysis).

Vaccination policy

VACCINATION IS PROHIBITED

Other preventive measures than vaccination in place

All movements of animals should be reported and registered on a central database and are allowed only after a brucellosis negative serological examination.

Control program/mechanisms

The control program/strategies in place

The bovine brucellosis eradication program is based on a test and extended slaughter or killing of positive animals or positive herds, implemented in the areas of Cyprus which can be controlled by the Government of Cyprus and in which respectively the Veterinary Services exercise their effective control. The target population of the program is all bovine animals over 12 months old. The Veterinary Services, which belong to the Ministry of Agriculture, Environment and Natural Resources, is responsible for the application of the bovine brucellosis eradication program. The Director of the Veterinary Services is responsible for coordinating the whole program. In 2004, 2005, 2006, 2007 and 2008 the EU has co-financed 50% of the program cost. All the measures taken are according to Directive 64/432/EEC.

Recent actions taken to control the zoonoses

Application of brucellosis eradication program.

Measures in case of the positive findings or single cases

Once there is a confirmation of a positive case:
a.The farm is placed under movement restrictions.
b.The milk collecting Organizations are notified so as the milk originating from the infected farms to be collected in separate milk tanks for pasteurization.
c.Seropositive bovines are isolated from the other animals to be slaughtered in the designated slaughterhouse. In case there is stamping out decision restocking is permitted after 6 months.
d.Seropositive animals are valued before slaughter. Compensations at a level of 100% of their reproductive value are paid to owners.
e.Dogs and animals of other species which are known to be susceptible to brucellosis are serologically examined too.
f.One month after the slaughter, all bovine animals over twelve months old are serologically reexamined.
g.Serological reexamination of the confirmed positive herds is performed every month, and the seropositive bovines are culled.
h.Farms' cleaning and disinfection is done under the supervision of the Veterinary Services, with disinfectants being provided on a free basis by the Veterinary Services.
i.The pasture after being collected and disinfected is buried in a place far away from the establishments.

Notification system in place

Any case of abortion or other symptoms related to brucellosis are compulsory notifiable to Veterinary Services of the Republic of Cyprus, according to the animal health laws N. 109 (I)/2001 and N. 82(I)/2003, 116(I)/2007 and 20(I)/2009.

Results of the investigation

Link to tables

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

The progress of eradication program was very satisfactory, with both the prevalence and incidence of bovine brucellosis in Cyprus reached zero levels by the end of 2009.

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

There have been no human cases of brucellosis during 2009.

Additional information

As far as it concerns the declaration of officially free herds 291 out of 322 have been declared officially free. The rest are under the procedure of granting the status.

E. B. melitensis in animal - Sheep and goats

Monitoring system

Sampling strategy

At infected and suspected flocks sampling is targeted.
Concerning the other flocks; sampling is part of a permanent monitoring scheme.
Samples are collected at farm level, by the employees of the Veterinary Services.

Frequency of the sampling

Infected farms: Monthly blood sampling of all animals over 6 months. Cultures from milk samples from the seropositive animals in new outbreaks and fetuses (in any case of abortion).
Non infected farms: Cultures from milk samples and fetuses from aborting animals. Blood sampling of all animals over 6 months old twice a year in non officially free farms. For officially free farms blood sampling of all animals over 6 months old or of an appropriate percentage of them once a year.

Type of specimen taken

Blood, Milk, Fetuses

Methods of sampling (description of sampling techniques)

Blood samples are taken by venipuncture from the jugular vein. Blood is collected in tubes (4 ml). Milk is collected in screw cup bottles (30 ml). Samples are stored at 2-40C, for one week at the most for blood samples and 2-3 days for milk samples.

Case definition

As a positive case is defined a case when an animal reacts positively at Rose Bengal test and / or CFT test (> 20 ICFTU).

Diagnostic/analytical methods used

All materials, reagents and procedures used are based to the relevant EEC legislation (Dir 91/68/EEC and 64/432/EEC) and the OIE Manual of diagnostic tests and vaccines for terrestrial animals (mammals, birds and bees) 5th ed, 2004.

Individual Screening Test: Rose Bengal test. 30 Î¼l of serum and antigen are mixed on tiles to produce a zone of appr 2 cm. The mixture is rocked using a rotating shaker for 4 min and then observed for agglutination. Any degree of agglutination is considered positive. In each day test a positive and a negative control is used. The Rose Bengal antigen is commercially purchased and is manufactured according to the specifications given in the above mentioned references.

Individual Confirmation Test: Complement fixation test. Dilution of serum from Â¼ until 1/256 is used, sera are inactivated in water bath in tubes and then transferred to 96 well U micro plates. Warm fixation follows. All reagents are commercially purchased and each time the batch or the company changes titration of the reagents takes place. In each day test controls of complement, antigen, blood as well as positive and negative controls are used. Also, for each sample examined there is anticomplimentary control.

Isolation: On Brucella medium incubating in 37 C with and without CO2. Confirmation on the species level: Dye of the colony with Gram and Stamp. Culture on Mc Conkey agar (lactose fermentation) and Blood agar (Haemolysis).

Vaccination policy

VACCINATION IS PROHIBITED

Other preventive measures than vaccination in place

All movements of animals should be reported and registered on a central database and are allowed only after a brucellosis negative serological examination.

Control program/mechanisms

The control program/strategies in place

The ovine and caprine brucellosis eradication program is based on a test and extended slaughter or killing of positive animals or positive flocks, implemented in the area controlled by the Veterinary Services of the Republic of Cyprus. The target population of the program is all animals over 6 months old. The Department of Veterinary Services, which belongs to the Ministry of Agriculture, Environment and Natural Resources, is responsible for the application of the ovine and caprine brucellosis eradication program. The Director of the Veterinary Services is responsible for the coordination of the whole program. In 2004, 2005 and 2006,2007and 2008 the EU has co-financed 50% of the program cost. All the measures taken are according to Directive 91/68 EEC.

Recent actions taken to control the zoonoses

Application of brucellosis eradication program.

Measures in case of the positive findings or single cases

Once there is a confirmation of a positive case:
a.The farm is placed under movement restrictions.
b.The milk collecting Organizations are notified so as the milk originating from the infected farms to be collected in separate milk tanks for pasteurization.
c.Seropositive sheep and goats are isolated from the other animals to be slaughtered in the designated slaughterhouse. In case there is stamping out decision restocking is permitted after 6 months.
d.Seropositive animals are valued before slaughter. Compensations at a level of 100% of their reproductive value are paid to owners.
e.Dogs and animals of other species which are known to be susceptible to brucellosis are serologically examined too.
f.One month after the slaughter, all sheep and goats over six months old are serologically reexamined.
g.Serological reexamination of the confirmed positive flocks is performed every month, and the seropositive animals are culled.
h.Farms' cleaning and disinfection is done under the supervision of the Veterinary Services, with disinfectants being provided on a free basis by the Veterinary Services.
i.The pasture after being collected and disinfected is buried in a place far away from the establishments.

Notification system in place

Any case of abortion or other symptoms related to brucellosis are compulsory notifiable to Veterinary Services of the Republic of Cyprus, according to the Animal Health Laws N. 109 (I)/2001, N. 82(I)/2003, 116(I)/2007 and 20(I)/2009.

Results of the investigation

Link to relevant tables

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

Both the prevalence and incidence of ovine and caprine brucellosis decreased further and remained at very low levels in 2009.

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

There have been no human cases of brucellosis during 2009

Additional information

As far as it concerns the declaration of officially free flocks 2,049 out of 3,267 are officially free. The rest are under the procedure of been granted the BOF status.

Table Brucellosis in other animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Units tested	Total units positive for Brucella	B. abortus	B. melitensis	B. suis
Pigs	Veterinary Services	Selective sampling	Official sampling	animal sample > blood		Animal	994	0	0	0	0

	Brucella spp., unspecified
Pigs	0

Table Bovine brucellosis - data on herds - Community co-financed eradication programmes

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of herds	Total number of herds under the programme	Number of herds checked	Number of positive herds	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	Indicators		
								% herd coverage	% positive herds Period herd prevalence	% new positive herds Herd Incidence
Κύπρος / Kıbrıs	356	308	302	0	0	0	N.A.	98.05	0	0
Total : [1)]	356	308	302	0	0	0	N.A.	98.05	0	0
Total - 1	361	320	281	0	0	0	N.A.	87.81	0	0

Comments:

[1)] N.A.

Table Ovine or Caprine brucellosis - data on herds - Community co-financed eradication programmes

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of herds	Total number of herds under the programme	Number of herds checked	Number of positive herds	Number of new positive herds	Number of herds depopulated	% positive herds depopulated	Indicators		
								% herd coverage	% positive herds Period herd prevalence	% new positive herds Herd Incidence
Κύπρος / Kıbrıs	3362	3156	3036	0	0	0	N.A.	96.2	0	0
Total : [1)]	3362	3156	3036	0	0	0	N.A.	96.2	0	0
Total - 1	3327	3185	3007	2	1	0	0	94.41	.07	.03

Comments:

[1)] N.A.

Table Bovine brucellosis - data on animals - Community co-financed eradication programmes

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of animals	Number of animals to be tested under the programme	Number of animals tested	Number of animals tested individually	Number of positive animals	Slaughtering		Indicators	
						Number of animals with positive result slaughtered or culled	Total number of animals slaughtered	% coverage at animal level	% positive animals - animal prevalence
Κύπρος / Kıbrıs	58127	38474	38428	2046	0	0	0	99.88	0
Total : [1)]	58127	38474	38428	2046	0	0	0	99.88	0
Total - 1	56180	37757	36908	3231	0	0	0	97.75	0

Comments:

[1)] N.A.

Table Ovine or Caprine brucellosis - data on animals - Community co-financed eradication programmes

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of animals	Number of animals to be tested under the programme	Number of animals tested	Number of animals tested individually	Number of positive animals	Slaughtering		Indicators	
						Number of animals with positive result slaughtered or culled	Total number of animals slaughtered	% coverage at animal level	% positive animals - animal prevalence
Κύπρος / Kıbrıs	583790	512179	245766	245766	0	0	16	47.98	0
Total : [1)]	583790	512179	245766	245766	0	0	16	47.98	0
Total - 1	538823	444220	252228	252228	2	2	27	56.78	0

Comments:

[1)] N.A.

Table Bovine brucellosis - data on status of herds at the end of the period - Community co-financed eradication programmes

If present, the row "Total -1" refers to analogous data of the previous year.

	Status of herds and animals under the programme													
	Total number of herds and animals under the programme		Unknown		Not free or not officially free				Free or officially free suspended		Free		Officially free	
					Last check positive		Last check negative							
Region	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals
Κύπρος / Kıbrıs	308	38474	0	0	0	0	17	136	0	0			291	38338
Total : [1)]	308	38474	0	0	0	0	17	136	0	0	0	0	291	38338
Total - 1	320	37757	0	0	0	0	61	2673	0	0			259	35084

Comments:

[1)] N.A.

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

If present, the row "Total -1" refers to analogous data of the previous year.

Region	Total number of existing		Officially free herds		Infected herds		Surveillance			Investigations of suspect cases				
	Herds	Animals	Number of herds	%	Number of herds	%	Number of herds tested	Number of animals tested	Number of infected herds	Number of animals tested with serological blood tests	Number of animals positive serologically	Number of animals examined microbio logically	Number of animals positive microbio logically	Number of suspended herds
Κύπρος / Kıbrıs	3156	512179	2861	90.65	0	0	3036	245766	0	245766	16	15	0	0
Total : [1)]	3156	512179	2861	90.65	0	0	3036	245766	0	245766	16	15	0	0

Comments:

[1)] N.A.

2.7 YERSINIOSIS

2.7.1 General evaluation of the national situation

A. Yersinia enterocolitica general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.7.2 Yersiniosis in humans

A. Yersinosis in humans

Reporting system in place for the human cases

YES SINCE JANUARY 2005

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/analytical methods used

EU RECOMMENDED LABORATORY CRITERIA FOR DIAGNOSIS

Notification system in place

QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS. NOTIFIABLE SINCE JANUARY 2005

History of the disease and/or infection in the country

NOT APPLICABLE

Results of the investigation

NOT APPLICABLE

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

NOT APPLICABLE

Relevance as zoonotic disease

AS IT HAS RECENTLY BEEN DECLARED AS MANDATORY NOTIFIABLE DISEASE THEREFORE NO DATA ARE AVAILABLE FOR 2004.
WE CONSIDER IT A RELEVANT AS ZOONOTIC DISEASE.

Additional information

The relevant data for 2011 will be submitted by the colleagues of the Ministry of Health through the ECDC network.

2.7.3 Yersinia in animals

A. Yersinia enterocolitica in pigs

Monitoring system

Sampling strategy

Animals at farm

NO DATA AVAILABLE

Animals at slaughter (herd based approach)

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Animals at farm

NO DATA AVAILABLE

Animals at slaughter (herd based approach)

NO DATA AVAILABLE

Case definition

Animals at farm

NO DATA AVAILABLE

Animals at slaughter (herd based approach)

NO DATA AVAILABLE

Vaccination policy

NO DATA AVAILABLE

Other preventive measures than vaccination in place

NO DATA AVAILABLE

Control program/mechanisms

The control program/strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Measures in case of the positive findings or single cases

NO DATA AVAILABLE

Notification system in place

NO DATA AVAILABLE

Results of the investigation

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.8 TRICHINELLOSIS

2.8.1 General evaluation of the national situation

A. Trichinellosis general evaluation

History of the disease and/or infection in the country

Not Present in Cyprus

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

The agent is not present in Cyprus. The relevant examination tests are done as foreseen by the EU and National Legislation in force.

2.8.2 Trichinellosis in humans

A. Trichinellosis in humans

Reporting system in place for the human cases

The report of these data is done by the colleagues of the Ministry of Health through the ECDC.

The data will be submitted by the Ministry of Helath colleagues through the ECDC data base.

2.8.3 Trichinella in animals

A. Trichinella in horses

Monitoring system

Sampling strategy

No horse meat consumption is practiced in Cyprus.

B. Trichinella in pigs

Number of officially recognised Trichinella-free holdings

The disease is not present in Cyprus.

Table Trichinella in animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Units tested	Total units positive for Trichinella	T. spiralis	Trichinella spp., unspecified
Pigs - fattening pigs - raised under controlled housing conditions - at slaughterhouse - Surveillance	VETERINARY SERVICES LCFAO/PUBLIC HEALTH DIVISION		Official sampling	food sample > meat		Animal	680964	0	0	0
Pigs - breeding animals - raised under controlled housing conditions - sows and boars - at slaughterhouse - Surveillance	VETERINARY SERVICES LCFAO/PUBLIC HEALTH DIVISION		Official sampling	food sample > meat		Animal	18358	0	0	0

2.9 ECHINOCOCCOSIS

2.9.1 General evaluation of the national situation

A. Echinococcus spp. general evaluation

History of the disease and/or infection in the country

No text available

2.9.2 Echinococcosis in humans

A. Echinococcus spp. in humans

Reporting system in place for the human cases

YES

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/analytical methods used

EU RECOMMENDED LABORATORY CRITERIA FOR DIAGNOSIS

Notification system in place

QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND AMENDMENTS. IT IS A NOTIFIABLE DISEASE.

Relevance as zoonotic disease

SPORADIC CASES OF ECHINOCOCCUS ARE REPORTED YEARLY. SURVEILLANCE OF HUMAN CASES IS CONSIDERED IMPORTANT TO EVALUTE THE PREVENTIVE PROGRAMS IN ANIMALS

Additional information

The data for humans will be furnised by the colleagues of the Ministry of Helath through the ECDC database network.

2.9.3 Echinococcus in animals

Table Echinococcus in animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Region	Units tested	Total units positive for Echinococcus	E. granulosus	E. multilocularis
Dogs		Objective sampling	Official sampling	animal sample		Animal	Κύπρος / Kıbrıs	16	0	0	0
Cattle (bovine animals) - adult cattle over 2 years - unspecified - Monitoring - passive (Necropsy checks)		Unspecified	Official sampling	animal sample		Animal	Κύπρος / Kıbrıs	11	0	0	0
Goats - animals over 1 year - unspecified - Monitoring - passive (Necropsy checks)		Unspecified	Official sampling	animal sample		Animal	Κύπρος / Kıbrıs	250	0	0	0
Mouflons - wild - unspecified - Monitoring - passive (The samples concern the Cypriot mouflon species of Ovis orientalis ophion)		Unspecified	Official sampling	animal sample		Animal	Κύπρος / Kıbrıs	29	2	2	0
Pigs - unspecified - unspecified - Monitoring - passive (Necropsy checks)		Unspecified	Official sampling	animal sample		Animal	Κύπρος / Kıbrıs	5	0	0	0
Rabbits - farmed - unspecified - Monitoring - passive (Necropsy checks)		Unspecified	Official sampling	animal sample		Animal	Κύπρος / Kıbrıs	45	0	0	0
Sheep - animals over 1 year - unspecified - Monitoring - passive (Necropsy checks)		Unspecified	Official sampling	animal sample		Animal	Κύπρος / Kıbrıs	453	0	0	0

	Echinococcus spp., unspecified
Dogs	0

Table Echinococcus in animals

	Echinococcus spp., unspecified
Cattle (bovine animals) - adult cattle over 2 years - unspecified - Monitoring - passive (Necropsy checks)	0
Goats - animals over 1 year - unspecified - Monitoring - passive (Necropsy checks)	0
Mouflons - wild - unspecified - Monitoring - passive (The samples concern the Cypriot mouflon species of Ovis orientalis ophion)	0
Pigs - unspecified - unspecified - Monitoring - passive (Necropsy checks)	0
Rabbits - farmed - unspecified - Monitoring - passive (Necropsy checks)	0
Sheep - animals over 1 year - unspecified - Monitoring - passive (Necropsy checks)	0

2.10 TOXOPLASMOSIS

2.10.1 General evaluation of the national situation

A. Toxoplasmosis general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

2.10.2 Toxoplasmosis in humans

A. Toxoplasmosis in humans

Reporting system in place for the human cases

YES, SINCE JANUARY 2005 FOLLOWING AMENDMENT OF THE LEGISLATION

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/analytical methods used

EU RECOMMENDED LABORATORY CRITERIA FOR DIAGNOSIS OF TOXOPLASMOSIS

Notification system in place

QUARANTINE (PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS. NOTIFIABLE SINCE JANUARY 2005

History of the disease and/or infection in the country

NOT APPLICABLE

Results of the investigation

NOT APPLICABLE

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

NOT APPLICABLE

Relevance as zoonotic disease

NO DATA ARE AVAILABLE AS IT HAS RECENTLY BEEN INCLUDED IN THE LIST OF MANDATORY NOTIFIABLE DISEASES. WE CONSIDER THE DISEASE AS RELEVANT IN VIEW OF CONGENITAL TOXOPLASMOSIS

Additional information

The relevant data for humans will be submitted by the colleagues of the Ministry of Health through the ECDC network.

2.10.3 Toxoplasma in animals

Table Toxoplasma in animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Analytical Method	Sampling unit	Units tested	Total units positive for Toxoplasma	T. gondii	Toxoplasma spp., unspecified
Sheep and goats - at farm - Clinical investigations				animal sample > blood		ELISA	Animal	268	76	76	

2.11 RABIES

2.11.1 General evaluation of the national situation

A. Rabies general evaluation

History of the disease and/or infection in the country

Cyprus is free from Rabies

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

Cyprus is free from Rabies

Recent actions taken to control the zoonoses

Concerning the animals' entry into Cyprus either on a non commercial movement or on a commercial movement it is required that are duly vaccinated against Rabies.

The time period prior in which the vaccination should have taken place depends on the country of origin as provided by the EU Regulation 998/2003/EK and the related EU Decisions.

Animals originating from EU countries and third countries which are considered of equal to the EU member states Rabies status (mentioned in Part B, section 2 and Part C of Annex II of Regulation 998/2003/EK) are required to be vaccinated/revaccinated against Rabies at least 30 days prior departrure for Cyprus.

Animals originating from third countries not mentioned in Part B,section 2 and Part C of Annex II are required to have a titer result of at least 0.5 IU/ml of Rabies Neutralising Antibodies (RNA) prior the animal departs for Cyprus.
The blood sampling should have taken place 30 days after Rabies vaccination/revaccination has taken place but not less than 90 days prior departure for Cyprus.

Animals originating from Cyrpus and the other EU countries, taken on a trip to one of the third countries not mentioned in Part B, section 2 and Part C of Annex II of Regulation 998/2003/EK, and which will return to Cyprus are required to have a positive RNA blood titration test result prior leaving either Cyprus or the EU member for the trip to the third country.

Animals originating from Cyprus traveling to an EU country should be duly vaccinated or revaccinated against Rabies in order to reenter Cyprus.

2.11.2 Rabies in humans

A. Rabies in humans

Reporting system in place for the human cases

YES.

Case definition

EU RECOMMENDED CASE DEFINITION SINCE JANUARY 2004

Diagnostic/analytical methods used

EU RECOMMENDED MICOBIOLOGY LABORATORY CRITERIA

Notification system in place

QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND AMENDMENTS. MANDATORY NOTIFIABLE DISEASE AND CASE DEFINITIONS INTRODUCED SINCE JANUARY 2004

History of the disease and/or infection in the country

NO CASES OF RABIES HAVE BEEN REPORTED OVER THE LAST 30 YEARS AND CYPRUS IS A RABIES FREE COUNTRY

Additional information

The report of these data will be done by the colleagues of the Ministry of Health through the ECDC database network.

2.11.3 Lyssavirus (rabies) in animals

A. Rabies in dogs

Monitoring system

Sampling strategy

Cyprus is free from Rabies.
Concerning the animals' entry into Cyprus either on a non commercial movement or on a commercial movement it is required that are duly vaccinated against Rabies.

The time period prior in which the vaccination should have taken place depends on the country of origin as provided by the EU Regulation 998/2003/EK and the related EU Decisions.

Animals originating from EU countries and third countries which are considered of equal to the EU member states Rabies status (mentioned in Part B, section 2 and Part C of Annex II of Regulation 998/2003/EK) are required to be vaccinated/revaccinated against Rabies at least 30 days prior departrure for Cyprus.

Animals originating from third countries not mentioned in Part B,section 2 and Part C of Annex II are required to have a titer result of at least 0.5 IU/ml of Rabies Neutralising Antibodies (RNA) prior the animal departs for Cyprus.
The blood sampling should have taken place 30 days after Rabies vaccination/revaccination has taken place but not less than 90 days prior departure for Cyprus.

Animals originating from Cyrpus and the other EU countries, taken on a trip to one of the third countries not mentioned in Part B, section 2 and Part C of Annex II of Regulation 998/2003/EK, and which will return to Cyprus are required to have a positive RNA blood titration test result prior leaving either Cyprus or the EU member for the trip to the third country.

Animals originating from Cyprus traveling to an EU country should be duly vaccinated or revaccinated against Rabies in order to reenter Cyprus.

Frequency of the sampling

Blood Sampling is done for dogs which are to travel to a third country not mentioned in Part B,section 2 and Part C of Annex II of Regulation 998/2003/EK and which will enter/return back to Cyprus.

Type of specimen taken

Blood

Methods of sampling (description of sampling techniques)

Blood is sampled and the blood sampling should have taken place 30 days after Rabies vaccination/revaccination has taken place but not less than 90 days prior departure for Cyprus.The blood sample should be sent to one of the EU recognised laboratories for evaluating the Rabies Neutralising Antibodies titer.

Case definition

As Rabies case is considered an animal which shows symptoms attributed to Rabies virus and from

whose the CNS Negri virus particles are detected histopathologically.

Diagnostic/analytical methods used

Hellers stain

Vaccination policy

Rabies vaccination is voluntary as Cyprus is free from Rabies.
In case the animal is to travel abroad and in order for it to reenter free, the relevant Rabies vaccination and/or antibodies titration should take place within the required time frame, as provided by the provisions in force (www.moa.gov.cy/vs Useful Information link).

Other preventive measures than vaccination in place

Quarantine

Control program/mechanisms

The control program/strategies in place

The relevant chekcs are performed by both the Customs Department and the Veterinary Services upon the animals arrival at the Republic of Cyprus' official points of entry.

Measures in case of the positive findings or single cases

The suspect animal is euthanised and confiscated for further examination by the Veterinary Services. Any possible human or animal contact with the suspect animal is traced back and appropriately treated in case of humans. As far as animals is concerned they are confiscated and isolated so as to safeguard the proper handling in case of new positive cases.

Notification system in place

Mandatory Notifiable

Results of the investigation

Investigations of the human contacts with positive cases

Any human contacts in case of a rabies incidence are traced and appropriately checked by the Public Health Services of the Ministry of Health.

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

Cyprus is free from Rabies

2.12 STAPHYLOCOCCUS INFECTION

2.12.1 General evaluation of the national situation

2.12.2 Staphylococcus in foodstuffs

Table Staphylococcus in Food

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Staphylococcus	S. aureus, meticillin resistant (MRSA)	S. aureus, meticillin resistant (MRSA) - spa -type t011
Cheeses, made from mixed milk from cows, sheep and/or goats - at processing plant - domestic production - Surveillance (The milk used was pasteurized)	LCFAO		Official sampling	food sample		Batch	25g	1483	6	6	
Meat from rabbit - carcase - chilled - at slaughterhouse - Surveillance	LCFAO		Official sampling	food sample > meat		Batch	10 g	10	0		
Other products of animal origin - at processing plant - domestic production - Surveillance (It concerns the local product Trachanas)	LCFAO		Official sampling	food sample		Batch	25g	30	0		

	S. aureus, meticillin resistant (MRSA) - spa -type t108	S. aureus, meticillin resistant (MRSA) - spa -type t034	S. aureus, meticillin resistant (MRSA) - MRSA, unspecified
Cheeses, made from mixed milk from cows, sheep and/or goats - at processing plant - domestic production - Surveillance (The milk used was pasteurized)			6

Table Staphylococcus in Food

	S. aureus, meticillin resistant (MRSA) - spa -type t108	S. aureus, meticillin resistant (MRSA) - spa -type t034	S. aureus, meticillin resistant (MRSA) - MRSA, unspecified
Meat from rabbit - carcase - chilled - at slaughterhouse - Surveillance			
Other products of animal origin - at processing plant - domestic production - Surveillance (It concerns the local product Trachanas)			

2.13 Q-FEVER

2.13.1 General evaluation of the national situation

A. Coxiella burnetii (Q-fever) general evaluation

History of the disease and/or infection in the country

No Data Available

2.13.2 Coxiella (Q-fever) in animals

Table Coxiella burnetii (Q fever) in animals

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Analytical Method	Sampling unit	Units tested	Total units positive for Coxiella (Q-fever)	C. burnetii	No of clinically affected herds
Cattle (bovine animals) - at farm - Clinical investigations		Convenience sampling	Official sampling	animal sample		PCR	Animal	18	1	1	1
Sheep - at farm - Clinical investigations		Convenience sampling	Official sampling	animal sample		PCR	Animal	71	25	25	3
Goats - at farm - Clinical investigations		Convenience sampling	Official sampling	animal sample		PCR	Animal	71	29	29	1

3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE

3.1 ESCHERICHIA COLI, NON-PATHOGENIC

3.1.1 General evaluation of the national situation

A. Escherichia coli general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Recent actions taken to control the zoonoses

NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

3.1.2 Antimicrobial resistance in Escherichia coli, non-pathogenic

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		16	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.25	
Fluoroquinolones	Ciprofloxacin		0.03	
Penicillins	Ampicillin		8	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Animals

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Feed

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		16	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.25	
Fluoroquinolones	Ciprofloxacin		0.03	
Penicillins	Ampicillin		8	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

Table Cut-off values used for antimicrobial susceptibility testing of Escherichia coli, non-pathogenic in Food

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		2	
	Streptomycin		16	
Amphenicols	Chloramphenicol		16	
Cephalosporins	Cefotaxime		0.25	
Fluoroquinolones	Ciprofloxacin		0.03	
Penicillins	Ampicillin		8	
Quinolones	Nalidixic acid		16	
Sulfonamides	Sulfonamides		256	
Tetracyclines	Tetracycline		8	
Trimethoprim	Trimethoprim		2	

3.2 ENTEROCOCCUS, NON-PATHOGENIC

3.2.1 General evaluation of the national situation

3.2.2 Antimicrobial resistance in Enterococcus, non-pathogenic isolates

Table Cut-off values for antibiotic resistance of E. faecalis in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		512	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		32	

Table Cut-off values for antibiotic resistance of E. faecalis in Animals

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Tetracyclines	Tetracycline		2	

Table Cut-off values for antibiotic resistance of E. faecalis in Feed

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		512	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		32	
Tetracyclines	Tetracycline		2	

Table Cut-off values for antibiotic resistance of E. faecalis in Food

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		512	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		32	
Tetracyclines	Tetracycline		2	

Table Cut-off values for antibiotic resistance of E. faecium in Animals

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		128	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	

Table Cut-off values for antibiotic resistance of E. faecium in Feed

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		128	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	

Table Cut-off values for antibiotic resistance of E. faecium in Food

Test Method Used	Standard methods used for testing

			Concentration (microg/ml)	Zone diameter (mm)
		Standard	Resistant >	Resistant <=
Aminoglycosides	Gentamicin		32	
	Streptomycin		128	
Amphenicols	Chloramphenicol		32	
Glycopeptides (Cyclic peptides, Polypeptides)	Vancomycin		4	
Macrolides	Erythromycin		4	
Oxazolidines	Linezolid		4	
Penicillins	Ampicillin		4	
Streptogramins	Quinupristin/Dalfopristin		1	
Tetracyclines	Tetracycline		2	

4. INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS

4.1 ENTEROBACTER SAKAZAKII

4.1.1 General evaluation of the national situation

A. Enterobacter sakazakii general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

4.1.2 Cronobacter in foodstuffs

A. Enterobacter sakazakii in foodstuffs

Monitoring system

Sampling strategy

NO DATA AVAILABLE

4.2 HISTAMINE

4.2.1 General evaluation of the national situation

A. Histamine General evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

4.2.2 Histamine in foodstuffs

A. Histamine in foodstuffs

Monitoring system

Sampling strategy

NO DATA AVAILABLE

Table Histamine in food

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units in non-conformity	<= 100 mg/kg	>100 - <= 200 mg/kg
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme maturated - at processing plant - Surveillance [1)]	Veterinary Services, LCFAO					Batch	95g,100 g, 185 g, 200 g	126	0	126	0
Fish - Fishery products which have undergone enzyme maturation treatment in brine - at processing plant - Surveillance [2)]	Veterinary Services, LCFAO					Batch	100 g, 185 g, 200 g	54	0	54	0

	>200 - <= 400 mg/kg	> 400 mg/kg
Fish - Fishery products from fish species associated with a high amount of histidine - not enzyme maturated - at processing plant - Surveillance [1)]	0	0
Fish - Fishery products which have undergone enzyme maturation treatment in brine - at processing plant - Surveillance [2)]	0	0

Comments:

[1)] Samples came from the Border Inspection Posts as well as from the Official inspections performed at the storage places.

[2)] Samples came from the Border Inspection Posts

4.3 STAPHYLOCOCCAL ENTEROTOXINS

4.3.1 General evaluation of the national situation

A. Staphylococcal enterotoxins general evaluation

History of the disease and/or infection in the country

NO DATA AVAILABLE

4.3.2 Staphylococcal enterotoxins in foodstuffs

A. Staphylococcal enterotoxins in foodstuffs

Monitoring system

Sampling strategy

NO DATA AVAILABLE

Table Staphylococcal enterotoxins in food

	Source of information	Sampling strategy	Sampler	Sample type	Sample Origin	Sampling unit	Sample weight	Units tested	Total units positive for Staphylococcal enterotoxins
Cheeses, made from mixed milk from cows, sheep and/or goats - hard - made from pasteurised milk - at processing plant - domestic production - Surveillance [1)]	Veterinary Services, LCFAO		Official sampling	food sample		Batch	130 g, 250 g, 1670 g. (3 different types of hard cheeses)	6	1

Comments:

[1)] The cheeses were made from mixed sheep's and goat's milk made from pasteurised milk.

5. FOODBORNE

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

A. Foodborne outbreaks

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

NO DATA AVAILABLE

Description of the types of outbreaks covered by the reporting:

NO DATA AVAILABLE

National evaluation of the reported outbreaks in the country:

Trends in numbers of outbreaks and numbers of human cases involved

NO DATA AVAILABLE

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

NO DATA AVAILABLE

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

NO DATA AVAILABLE

Evaluation of the severity and clinical picture of the human cases

NO DATA AVAILABLE

Descriptions of single outbreaks of special interest

NO DATA AVAILABLE

Control measures or other actions taken to improve the situation

NO DATA AVAILABLE

Suggestions to the community for the actions to be taken

NO DATA AVAILABLE

Additional information

NO DATA AVAILABLE

Table Foodborne Outbreaks: summarised data

	Weak evidence or no vehicle outbreaks					
	Number of outbreaks	Human cases	Hospitalized	Deaths	Strong evidence Number of Outbreaks	Total number of outbreaks
Salmonella - S. Typhimurium	0	unknown	unknown	unknown	0	0
Salmonella - S. Enteritidis	0	unknown	unknown	unknown	0	0
Salmonella - Other serovars	0	unknown	unknown	unknown	0	0
Campylobacter	0	unknown	unknown	unknown	0	0
Listeria - Listeria monocytogenes	0	unknown	unknown	unknown	0	0
Listeria - Other Listeria	0	unknown	unknown	unknown	0	0
Yersinia	0	unknown	unknown	unknown	0	0
Escherichia coli, pathogenic - Verotoxigenic E. coli (VTEC)	0	unknown	unknown	unknown	0	0
Bacillus - B. cereus	0	unknown	unknown	unknown	0	0
Bacillus - Other Bacillus	0	unknown	unknown	unknown	0	0
Staphylococcal enterotoxins	0	unknown	unknown	unknown	0	0
Clostridium - Cl. botulinum	0	unknown	unknown	unknown	0	0
Clostridium - Cl. perfringens	0	unknown	unknown	unknown	0	0

	Weak evidence or no vehicle outbreaks					
	Number of outbreaks	Human cases	Hospitalized	Deaths	Strong evidence Number of Outbreaks	Total number of outbreaks
Clostridium - Other Clostridia	0	unknown	unknown	unknown	0	0
Other Bacterial agents - Brucella	0	unknown	unknown	unknown	0	0
Other Bacterial agents - Shigella	0	unknown	unknown	unknown	0	0
Other Bacterial agents - Other Bacterial agents	0	unknown	unknown	unknown	0	0
Parasites - Trichinella	0	unknown	unknown	unknown	0	0
Parasites - Giardia	0	unknown	unknown	unknown	0	0
Parasites - Cryptosporidium	0	unknown	unknown	unknown	0	0
Parasites - Anisakis	0	unknown	unknown	unknown	0	0
Parasites - Other Parasites	0	unknown	unknown	unknown	0	0
Viruses - Norovirus	0	unknown	unknown	unknown	0	0
Viruses - Hepatitis viruses	0	unknown	unknown	unknown	0	0
Viruses - Other Viruses	0	unknown	unknown	unknown	0	0
Other agents - Histamine	0	unknown	unknown	unknown	0	0
Other agents - Marine biotoxins	0	unknown	unknown	unknown	0	0
Other agents - Other Agents	0	unknown	unknown	unknown	0	0

	Weak evidence or no vehicle outbreaks					
	Number of outbreaks	Human cases	Hospitalized	Deaths	Strong evidence Number of Outbreaks	Total number of outbreaks
Unknown agent	0	unknown	unknown	unknown	0	0