



CYPRUS

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

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

including information on foodborne outbreaks and
antimicrobial resistance in zoonotic agents

IN 2005

INFORMATION ON THE REPORTING AND MONITORING SYSTEM

Country: **Cyprus**

Reporting Year: **2005**

Institutions and laboratories involved in reporting and monitoring:

Laboratory name	Description	Contribution
CHRISTODOULOS CHARAL. PIPIS	ANIMAL HEALTH AND WELFARE DIVISION (AHWD) VETERINARY SERVICES 1417, LEFKOSIA KIPROS	REPORTING OFFICER

PREFACE

This report is submitted to the European Commission in accordance with Article 9 of Council Directive 2003/99/EC¹. 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 2005. 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.

¹ Directive 2003/99/EC of the European Parliament and of the Council of 12 December 2003 on the monitoring of zoonoses and zoonotic agents, amending Decision 90/424/EEC and repealing Council Directive 92/117/EEC, OJ L 325, 17.11.2003, p. 31

LIST OF CONTENTS

1. ANIMAL POPULATIONS	1
2. INFORMATION ON SPECIFIC ZOOSES AND ZOONOTIC AGENTS	3
2.1. <i>SALMONELLOSIS</i>	4
2.1.1. General evaluation of the national situation	4
2.1.2. Salmonella in foodstuffs	5
2.1.3. Salmonella in animals	20
2.1.4. Salmonella in feedingstuffs	39
2.1.5. Salmonella serovars and phagetype distribution	39
2.1.6. Antimicrobial resistance in Salmonella isolates	40
2.2. <i>CAMPYLOBACTERIOSIS</i>	50
2.2.1. General evaluation of the national situation	50
2.2.2. Campylobacter, thermophilic in foodstuffs	51
2.2.3. Campylobacter, thermophilic in animals	53
2.2.4. Antimicrobial resistance in Campylobacter, thermophilic isolates	54
2.3. <i>LISTERIOSIS</i>	64
2.3.1. General evaluation of the national situation	64
2.3.2. Listeria in foodstuffs	65
2.3.3. Listeria in animals	66
2.4. <i>E. COLI INFECTIONS</i>	67
2.4.1. General evaluation of the national situation	67
2.4.2. Escherichia coli, pathogenic in foodstuffs	68
2.4.3. Escherichia coli, pathogenic in animals	68
2.5. <i>TUBERCULOSIS, MYCOBACTERIAL DISEASES</i>	70
2.5.1. General evaluation of the national situation	70
2.5.2. Mycobacterium in animals	71
2.6. <i>BRUCELLOSIS</i>	79
2.6.1. General evaluation of the national situation	79
2.6.2. Brucella in foodstuffs	81
2.6.3. Brucella in animals	81
2.7. <i>YERSINIOSIS</i>	93
2.7.1. General evaluation of the national situation	93
2.7.2. Yersinia in foodstuffs	94
2.7.3. Yersinia in animals	94
2.8. <i>TRICHINELLOSIS</i>	96
2.8.1. General evaluation of the national situation	96
2.8.2. Trichinella in animals	96
2.9. <i>ECHINOCOCCOSIS</i>	97
2.9.1. General evaluation of the national situation	97
2.9.2. Echinococcus in animals	98
2.10. <i>TOXOPLASMOSIS</i>	99
2.10.1. General evaluation of the national situation	99
2.10.2. Toxoplasma in animals	100
2.11. <i>RABIES</i>	101
2.11.1. General evaluation of the national situation	101

2.11.2. Lyssavirus (rabies) in animals	102
3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE	104
3.1. <i>ESCHERICHIA COLI</i> , <i>NON-PATHOGENIC</i>	105
3.1.1. General evaluation of the national situation	105
3.1.2. Antimicrobial resistance in <i>Escherichia coli</i> , non-pathogenic isolates	105
4. FOODBORNE OUTBREAKS	107

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 number of animals at the end of 2005

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

The animal population is allocated as follows:

Bovine Herds:

63 Herds with 1-5 animals, 19 herds with 6-10 animals, 22 herds with 11-25 animals, 14 herds with 26-50 animals, 26 herds with 51-100 animals, 94 herds with 101-200 animals, 47 herds with 201-300 animals and 70 herds with more than 301 animals.

The Total number of bovine herds is 355.

The Total number of Sheep and Goat flocks is 4152.

Table Susceptible animal populations

* Only if different than current reporting year

Animal species	Category of animals	Number of herds or flocks		Number of holdings		Livestock numbers (live animals)		Number of slaughtered animals	
			Year*		Year*		Year*		Year*
Cattle (bovine animals)	dairy cows and heifers			355		41921			
	calves (under 1 year)			355		19511			
	in total			355		61432			
Ducks	meat production flocks (1)			2	36600	31800			
	parent breeding flocks, unspecified - in total (2)	24	18			229725			
	parent breeding flocks for egg production line (3)	3				10365			
Gallus gallus (fowl)	parent breeding flocks for meat production line (4)	21				219360			
	laying hens	81	30	445545					
	broilers (5)		133	16771700		16239400			
Goats	animals under 1 year					79506			
	animals over 1 year					246696			
	in total					326202			
Pigs	mixed herds	107	107	429876		672657			
	breeding animals	2	2	13313		15890			
	fattening pigs	105	105	416563		656767			
Sheep	animals under 1 year (lambs)					61214			
	animals over 1 year					201340			
	in total					264554			
Turkeys	meat production flocks (6)		10	98800		90900			

(1): &Tau;&eta;&epsilon; 36600 birds refer to birds posted in 2005

(2): Registered in December 2005

(3): Registered in December 2005

(4): Registered in December 2005

(5): &Beta;birds posted in 2005

(6): 3 flocks are comprised solely of turkeys

5 flocks are comprised of both turkeys and chicks raised exclusively for Christmas

and 2 flocks are comprised of turkeys raised exclusively for Christmas

2. INFORMATION ON SPECIFIC ZONOSSES AND ZONOTIC AGENTS

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

2.1. SALMONELLOSIS

2.1.1. 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. Salmonella in foodstuffs

A. 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

B. 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

C. 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

D. 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

E. 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

Table Salmonella in poultry meat and products thereof

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Brandenburg	S. Muenchen	S. Derby	S. Sandow	S. Hadar	S. Blockley	S. Braenderup	S. Agona
Meat from broilers (Gallus gallus)	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	23	27	4			2	2	2	2	3	7	4	1
meat preparation intended to be eaten cooked	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	170	0											
meat products raw but intended to be eaten cooked	LCFAO	BATCH OF FIVE UNITS		33	1								1			
Meat from turkey	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	24	0											
fresh																
meat products																

[illegible]

Table Salmonella spp. in milk and dairy products

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. Saintpaul
Cheeses made from goats' milk									
soft and semi-soft	LCFAO	BATCH OF FIVE UNITS	25G FROM EACH UNIT	270	0				
made from pasteurized milk	LCFAO	BATCH OF FIVE UNITS	25G FROM EACH UNIT	572	1		2		1
Dairy products (excluding cheeses)									
butter									
made from raw or low heat-treated milk	LCFAO	BATCH OF FIVE UNITS	25 FROM EACH UNIT	10	0				

Table Salmonella in red meat and products thereof

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified	S. enterica subsp. arizonae	S. Braenderup	S. Anatum	S. Brandenburg	S. Newport	S. group B
Meat from pig	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	60	4		4							
minced meat	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	10	0									
meat preparation	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	132	7		1		1			2		3
meat products	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	216	4		4							
Meat from bovine animals														

fresh	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	48	4	1					2		1
minced meat													
intended to be eaten cooked	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	25	0								
meat preparation													
intended to be eaten cooked	LCFAO	BATCH OF FIVE UNITS	25gr FROM EACH UNIT	13	1		1						

Table Salmonella spp. in other food

	Source of information	Sampling unit	Sample weight	Units tested	Total units positive for Salmonella	S. Enteritidis	S. Typhimurium	Salmonella spp., unspecified
Eggs								
table eggs								
- at packing centre	LCFAO	BATCH OF TWELVE UNITS		681	8			
- at retail				0				
raw material (liquid egg) for egg products				0				
Egg products				0				
Fishery products	LCFAO	BATCH OF FIVE UNITS		128	0			
				0				
Crustaceans								
unspecified								
cooked				0				
raw				0				
Molluscan shellfish				0				
cooked				0				
raw				0				
Live bivalve molluscs				0				
Sprouted seeds				0				
ready-to-eat				0				
non-ready-to-eat				0				
Fruits and vegetables								
precut				0				
ready-to-eat				0				
Juice								
fruit juice								
unpasteurised				0				
vegetable juice								
unpasteurised				0				
Infant formula								
dried								

Cyprus 2005 Report on trends and sources of zoonoses

intended for infants below 6 months			0				
Foodstuffs intended for special nutritional uses							
dried dietary foods for special medical purposes intended for infants below 6 months			0				
Water							
potable water	LCFAO	BOTTLE OF 250 ml	763	13			

2.1.3. Salmonella in animals

A. Salmonella spp. in Gallus gallus - breeding flocks for egg production and flocks of laying hens

Monitoring system

Sampling strategy

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

NO DATA AVAILABLE

Laying hens 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: Production period

NO DATA AVAILABLE

Laying hens: Day-old chicks

NO DATA AVAILABLE

Laying hens: Rearing period

NO DATA AVAILABLE

Laying hens: Production period

NO DATA AVAILABLE

Laying hens: Before slaughter at farm

NO DATA AVAILABLE

Laying hens: At slaughter

NO DATA AVAILABLE

Eggs at packing centre (flock based approach)

NO DATA AVAILABLE

Case definition

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

Laying hens: Day-old chicks

NO DATA AVAILABLE

Laying hens: Rearing period

NO DATA AVAILABLE

Laying hens: Production period

NO DATA AVAILABLE

Laying hens: Before slaughter at farm

NO DATA AVAILABLE

Laying hens: At slaughter

NO DATA AVAILABLE

Eggs at packing centre (flock based approach)

NO DATA AVAILABLE

Vaccination policy

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

NO DATA AVAILABLE

Laying hens 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

Laying hens 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

Laying hens 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 (separate elite, grand parent and parent flocks when necessary)

NO DATA AVAILABLE

Laying hens 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

B. Salmonella spp. in Gallus gallus - breeding flocks for meat production and broiler flocks

Monitoring system

Sampling strategy

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

NO DATA AVAILABLE

Broiler 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: Production period

NO DATA AVAILABLE

Broiler flocks: Day-old chicks

NO DATA AVAILABLE

Broiler flocks: Rearing period

NO DATA AVAILABLE

Broiler flocks: Before slaughter at farm

NO DATA AVAILABLE

Broiler flocks: At slaughter (flock based approach)

NO DATA AVAILABLE

Case definition

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

Broiler flocks: Day-old chicks

NO DATA AVAILABLE

Broiler flocks: Rearing period

NO DATA AVAILABLE

Broiler flocks: Before slaughter at farm

NO DATA AVAILABLE

Broiler 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

Broiler flocks

NO DATA AVAILABLE

Other preventive measures than vaccination in place

Broiler 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

Broiler 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 (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

Broiler flocks: Day-old chicks

NO DATA AVAILABLE

Broiler flocks: Rearing period

NO DATA AVAILABLE

Broiler flocks: Before slaughter at farm

NO DATA AVAILABLE

Broiler flocks: At slaughter (flock based approach)

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 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

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

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

D. 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

E. 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

F. 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

G. 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

2.1.4. Salmonella in feedingstuffs

2.1.5. Salmonella serovars and phagetype distribution

2.1.6. Antimicrobial resistance in Salmonella isolates

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.

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

Breakpoints 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 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

Breakpoints 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 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

Breakpoints 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 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

Breakpoints 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

E. 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

Breakpoints 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

F. 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

Breakpoints 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

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. Campylobacter, thermophilic 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

2.2.3. Campylobacter, thermophilic 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

2.2.4. Antimicrobial resistance in Campylobacter, thermophilic 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

Breakpoints 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 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

Breakpoints 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 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

Breakpoints 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 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

Breakpoints 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 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

Breakpoints 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 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

Breakpoints 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

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. Listeria in foodstuffs

Table Listeria monocytogenes in milk and dairy products

	Source of information	Sampling unit	Sample weight	Definition used	Units tested	=<100 cfu/g	>100 cfu/g	Total units positive for L.monocytogenes	Listeria monocytogenes presence in x g	
Cheeses made from sheep's milk										
soft and semi-soft										
made from pasteurized milk	LCFAO	BATCH OF FIVE UNITS	25 gr FROM EACH UNIT		270			0	25	
Dairy products (excluding cheeses)										
butter	LCFAO	BATCH OF FIVE UNITS	25 gr FROM EACH UNIT		10			0	25	
Cheeses, made from mixed milk from cows, sheep and/or goats										
hard										
made from pasteurized milk	LCFAO	BATCH OF FIVE UNITS	25 gr FROM EACH UNIT		5			0	25	
soft and semi-soft										
made from pasteurized milk	LCFAO	BATCH OF FIVE UNITS	25 gr FROM EACH UNIT		572			1	25	

2.3.3. Listeria in animals

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. Escherichia coli, pathogenic in foodstuffs

2.4.3. 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 controlled by the Republic of Cyprus; thus regularly tested for TB. All slaughtered animals and their carcasses are necroscopically checked prior to be given to the meat industry for human consumption for possible presence of TB lesions. An island tuberculin test campaign began in 2004 according to Directive 64/432/EEC provisions. In 2004, 6937 animals were tested from 82 holdings of which none gave positive reaction. Two animals which reacted to the single intradermal test, had finally proved to be negative after the conduction of the intradermal comparative test. In 2005, 38779 animals were tested from 215 holdings. 122 holdings were assigned the Officially Free Status. In 2005 none animal has reacted positively to the single intradermal testing.

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

During 2004, 6931 animals were tested from 81 holdings of which none gave positive reaction. Two animals which reacted to the single intradermal test had proved to be negative after the conduction of the intradermal comparative test. In 2005, 38779 animals were tested from 215 holdings. 122 holdings were assigned the Officially Free Status. In 2005 none animal has reacted positively to the single intradermal testing.

Recent actions taken to control the zoonoses

A national tuberculin test campaign has begun in August 2004 according to Directive 64/432 provisions. 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. Mycobacterium in animals

A. Mycobacterium bovis in Bovine Animals

Status as officially free of bovine tuberculosis during the reporting year

The entire country free

122 out of 330 holdings have been assigned the Tuberculosis Officially Free Status in 2005.

Free regions

Paphos' District holdings, 39 in total have been recognised as Tuberculosis Officially Free.

Monitoring system

Sampling strategy

All animals above the age of six weeks are tested for TB. In order to be assigned the Tuberculosis Officially Free Status a herd must undergo two tuberculin tests within a minimum of a six months time interval.

Frequency of the sampling

In order to be assigned the Tuberculosis Officially Free Status a herd must undergo two tuberculin tests within a minimum of a six months time interval.

Type of specimen taken

Blood

Methods of sampling (description of sampling techniques)

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

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

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 Directive 64/432 provisions. The main objective of the program is to assign to bovine herds the Bovine Tuberculosis Officially Free Status (TBOFS).

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 by law any occurrence of the disease is obligatory notifiable to the Veterinary Services. No case have been reported since 1928

Results of the investigation

122 out of the 330 holdings have been assigned the Officially Free Status in 2005 and no animal has reacted positively to the single intradermal testing.

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

122 out of the 330 holdings have been assigned the Officially Free Status in 2005 and no animal has reacted positively to the single intradermal testing.

B. Mycobacterium bovis in farmed deer

Monitoring system

Sampling strategy

Not applied as no farm deer exist 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 - data on herds - Community co-financed eradication programmes

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 prevalence	% new positive herds - herd incidence
KYPROS / KIBRIS	355	330	122	0	0	0	0	36.97	0	0
Total	355	330	122	0	0	0	0	36.97	0	0
Total - 1	370	341	81	0	0	0	0	23.7	0	0

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

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 new 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	
KYPROS / KIBRIS	61432	56108	29312	23912	0	0	0	52.242	0	
Total	61432	56108	29312	23912	0	0	0	52.242	0	
Total - 1	62201	59670	6931	6931	0	0	0	11.615	0	

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

Region	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							
	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	
KYPROS / KIBRIS	355	56108	0	0	0	0	93	15954	0	0	0	0	122	13358	
Total	355	56108	0	0	0	0	93	15954	0	0	0	0	122	13358	
Total - 1	345	59670	0	0	0	0	82	6931	0	0	0	0	0	0	

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

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 examinations	Number of animals detected positive in bacteriological examination
	Herds	Animals	Number of herds	%	Number of herds	%	Interval between routine tuberculin tests	Number of animals tested			
KYPROS / KIBRIS	355	61432	122	34.36	0	0	180	15954	105	0	0
Total	355	61432	122	34.36	0	0	180	15954	105	0	0

Footnote

The interval between routine tuberculin tests is as provided by the EU Directive 64/432/EK namely six months.

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 2005, the prevalence and incidence of bovine, as well as, ovine and caprine brucellosis in Cyprus are decreasing.

Possible sources of infection in a herd or a flock are:

- the neighboring with known infected farms (most common)
- common use of machines
- illegal movements of animals from known infected farms
- sharing of pasture
- 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 2 new human cases of brucellosis during 2005. Both were owners of known infected farms.

Recent actions taken to control the zoonoses

On the area controlled by the Veterinary Services of the Republic of Cyprus from 2001 is applied the brucellosis eradication programme.

2.6.2. Brucella in foodstuffs

2.6.3. Brucella in animals

A. Brucella abortus in Bovine Animals

Status as officially free of bovine brucellosis during the reporting year

Free regions

Monitoring system

Frequency of the sampling

Vaccination policy

B. Brucella melitensis in Goat

Monitoring system

Type of specimen taken

Other:

Vaccination policy

Vaccination is prohibited

C. 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

Other: 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 cap 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 µl 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 1/4 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 anticomplementary 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 area controlled by the Veterinary Services of the Republic of Cyprus. The target population of the programme is all bovine animals over 12 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 bovine brucellosis eradication program. The Director of the Veterinary Services is responsible for the coordination of the whole program. In 2004 and 2005 the EU has cofinanced the 50% of the programme. All the measures taken are according to Directive 64/432 EEC.

Recent actions taken to control the zoonoses

Application of brucellosis eradication programme.

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.

Results of the investigation

Link to table 2.1.1.

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

According to the epidemiological data, from 2000 until the end of 2005, the prevalence and incidence of bovine brucellosis in Cyprus are decreasing.

Possible sources of infection in a herd are:

- the neighboring with known infected herds (most common)
- common use of machines
- illegal movements of animals from known infected herd
- sharing of pasture
- mechanical vectors (e.g. lorries of traders)

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

There were 2 new human cases of brucellosis during 2005. Both were owners of known infected farms.

Additional information

As far as it concerns the declaration of officially free herds 250 out of 334 have been declared officially free. The rest are under the procedure of granting the status.

D. 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

Other: 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 µl 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 1/4 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 programme 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 and 2005 the EU has cofinanced the 50% of the programme. All the measures taken are according to Directive 91/68 EEC.

Recent actions taken to control the zoonoses

Application of brucellosis eradication programme.

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 and N. 82(I)/2003.

Results of the investigation

Link to table 2.1.2.

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

According to the epidemiological data, from 2000 until the end of 2005, the prevalence and incidence of ovine and caprine brucellosis in Cyprus are decreasing.

Possible sources of infection in a flock are:

- the neighboring with known infected herds (most common)
- common use of machines
- illegal movements of animals from known infected herd
- sharing of pasture
- mechanical vectors (e.g. lorries of traders)

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

There were 2 new human cases of brucellosis during 2005.

Both were owners of known infected farms.

Additional information

As far as it concerns the declaration of officially free herds 2,196 out of 4,025 have been declared officially free. The rest are under the procedure of granting the status.

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

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 prevalence	% new positive herds - herd incidence
Kypros / Kibris	355	334	327	5	3	0	0	97.904	1.529	0.917
Total	355	334	327	5	3	0	0	97.904	1.529	0.917
Total - 1	370	345	345	7	4	0	0	100	2	1

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

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 new 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
Kypros / Kibris	61432	41921	41759	41735	114	114	182	99.614	0.273
Total	61432	41921	41759	41735	114	114	182	99.614	0.273
Total - 1	62201	41899	41899	41858	116	116	116	100	27

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

Region	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							
	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals
Kypros / Kibris	334	41921	0	0	1	254	79	10085	4	719	0	0	250	30863
Total	334	41921	0	0	1	254	79	10085	4	719	0	0	250	30863
Total - 1	345	41889	0	0	2	837	179	19542	0	0	0	0	164	21520

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

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 prevalence	% new positive herds - herd incidence
Kypros / Kibris	4152	4025	3094	16	4	1	6.25	76.87	0.517	0.129
Total	4152	4025	3094	16	4	1	6.25	76.87	0.517	0.129
Total - 1	4160	4059	4059	30	16	9	30	100	74	37

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

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 new 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
Kypros / Kibris	588756	548063	447940	447940	269	269	1592	81.731	0.06
Total	588756	548063	447940	447940	269	269	1592	81.731	0.06
Total - 1	552601	506428	506428	506428	212	212	3122	100	4

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

Region		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									
Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals	Herds	Animals		
Kypros / Kibris		4025	548063	0	0	2	82	1818	227673	9	3512	0	0	2196	316796		
Total		4025	548063	0	0	2	82	1818	227673	9	3512	0	0	2196	316796		
Total - 1		4059	506428	0	0	7	3410	2389	361052	3	226	0	0	1660	141740		

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. Yersinia in foodstuffs

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****2.8.2. Trichinella in animals****Table Trichinella in animals**

	Source of information	Sampling unit	Units tested	Total animals positive for Trichinella	T. spiralis	Trichinella spp., unspecified
Foxes	LCFAO	CARCASS	3	0		
Rats	LCFAO	CARCASS	216	0		
Mouflons						
wild						
- at game handling establishment - Monitoring - monitoring survey - selective sampling	LCFAO	CARCASS	4	0		
Dogs						
stray dogs						
- at destruction plant	LCFAO		6	0		

2.9. ECHINOCOCCOSIS

2.9.1. General evaluation of the national situation

A. Echinococcus spp general evaluation

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

During 2005 the control of Echinococcosis/Hydatidosis scheme has continued. Within this scheme, 32 dogs, were preventively treated with Pranziquantel.

118060 ovines, 175300 caprines, 18687 bovines and 672456 swines had been slaughtered in 2005 of which 5 ovines, 1 caprine and bovine have been found to be infected with *E. granulosus* cysts.

Recent actions taken to control the zoonoses

During 2005, 11637 Pranziquantel baits were spread covering the buffer zone and other areas, where movement of stray dogs was reported.

2.9.2. Echinococcus in animals**Table Echinococcus spp. in animals**

	Source of information	Sampling unit	Units tested	Total units positive for Echinococcus spp.	E. granulosus	E. multilocularis	Echinococcus spp., unspecified
Cattle (bovine animals)	VETERINARY SERVICES	ANIMAL CARCASS	18687	1	1		
Sheep	VETERINARY SERVICES	ANIMAL CARCASS	118060	5	5		
Goats	VETERINARY SERVICES	ANIMAL CARCASS	175300	1	1		
Pigs	VETERINARY SERVICES	ANIMAL CARCASS	672456	0	0		
Dogs	VETERINARY SERVICES	ANIMAL	32	0	0		
Mouflons							
wild	WILF GAME AND FAUNA FUND	ANIMAL CARCASS	2	2	2		

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. Toxoplasma in animals

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 departure 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 Cyprus 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. 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 departure 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 Cyprus 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

Other: 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 checks 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

3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE

3.1. ESCHERICHIA COLI, NON-PATHOGENIC

3.1.1. General evaluation of the national situation

A. E. 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 isolates

4. FOODBORNE OUTBREAKS

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

A. Foodborne outbreaks

System in place for identification, epidemiological 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