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

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

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

IN 2007
INFORMATION ON THE REPORTING AND MONITORING SYSTEM

Country: Cyprus
Reporting Year: 2007
PREFACE

This report is submitted to the European Commission in accordance with Article 9 of Council Directive 2003/99/EC. The information has also been forwarded to the European Food Safety Authority (EFSA). The report contains information on trends and sources of zoonoses and zoonotic agents in Cyprus during the year 2007. The information covers the occurrence of these diseases and agents in humans, animals, foodstuffs and in some cases also in feedingstuffs. In addition the report includes data on antimicrobial resistance in some zoonotic agents and commensal bacteria as well as information on epidemiological investigations of foodborne outbreaks. Complementary data on susceptible animal populations in the country is also given. The information given covers both zoonoses that are important for the public health in the whole European Community as well as zoonoses, which are relevant on the basis of the national epidemiological situation. The report describes the monitoring systems in place and the prevention and control strategies applied in the country. For some zoonoses this monitoring is based on legal requirements laid down by the Community Legislation, while for the other zoonoses national approaches are applied. The report presents the results of the examinations carried out in the reporting year. A national evaluation of the epidemiological situation, with special reference to trends and sources of zoonotic infections, is given. Whenever possible, the relevance of findings in foodstuffs and animals to zoonoses cases in humans is evaluated. The information covered by this report is used in the annual Community Summary Report on zoonoses that is published each year by EFSA.

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5. FOODBORNE OUTBREAKS
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 present on May 2008.

National evaluation of the numbers of susceptible population and trends in these figures:
The total bovine population is estimated to 56,722 animals, reared in 350 herds. The population under the brucellosis program is 38,824 animals in 322 herds.
The total sheep and goat population is estimated to 329,166 and 305,124 animals, respectively, reared in 3,576 herds. The population under the brucellosis program is 566,482 animals in 3,427 flocks.

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

The animal population is allocated as follows:
Bovine Herds:
70 herds with 1-5 animals, 21 herds with 6-10 animals, 20 herds with 11-25 animals, 14 herds with 26-50 animals, 23 herds with 51-100 animals, 93 herds with 101-200 animals, 47 herds with 201-300 animals and 62 herds with more than 301 animals.
The Total number of bovine herds is 350.
Sheep and goat Herds:
331 flocks with 1-5 animals, 291 flocks with 6-10 animals, 576 flocks with 11-25 animals, 503 flocks with 26-50 animals, 468 flocks with 51-100 animals, 501 flocks with 101-200 animals, 246 flocks with 201-300 animals and 660 flocks with more than 301 animals.
The Total number of Sheep and Goat flocks is 3,576.
Table Susceptible animal populations

<table>
<thead>
<tr>
<th>Animal species</th>
<th>Category of animals</th>
<th>Number of herds or flocks</th>
<th></th>
<th>Number of slaughtered animals</th>
<th>Livestock numbers (live animals)</th>
<th>Number of holdings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goats</td>
<td>in total</td>
<td></td>
<td></td>
<td>164565</td>
<td>2007</td>
<td>305124</td>
<td>May 2008</td>
</tr>
<tr>
<td>Sheep</td>
<td>in total</td>
<td></td>
<td></td>
<td>131559</td>
<td>2007</td>
<td>329166</td>
<td>May 2008</td>
</tr>
<tr>
<td>Sheep and goats</td>
<td>in total</td>
<td>3576</td>
<td>May 2008</td>
<td></td>
<td></td>
<td></td>
<td>3576</td>
</tr>
</tbody>
</table>
2. INFORMATION ON SPECIFIC ZOONOSES AND ZOONOTIC AGENTS

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

2.1.1. General evaluation of the national situation

A. General evaluation

History of the disease and/or infection in the country

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

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

Nowadays data exist for poultry and foods of animal origin.
2.1.2. Salmonellosis in humans

A. Salmonellosis in humans

Reporting system in place for the human cases
YES, SINCE 1932

Case definition
EU RECOMMENDED CASE DEFINITION SINCE JANUARY 2004

Diagnostic/ analytical methods used
EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSTIC CRITERIA.

Notification system in place
QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND AMENDMENTS.
MANDATORY NOTIFIABLE SINCE 1932

History of the disease and/ or infection in the country
SPORADIC CASES ARE REPORTED YEARLY AS WELL AS OCCASIONAL SMALL OUTBREAKS. ACTIVE SURVEILLANCE IS IN PLACE AS WELL AS CASE BY CASE INVESTIGATION BY THE ENVIRONMENTAL HEALTH INSPECTORS

Relevance as zoonotic disease
SURVEILLANCE OF HUMAN CASES IS ACTIVE BEARING IN MIND THE NEED TO EVALUATE PREVENTION PROGRAMMES AS WELL AS THE EARLY DIAGNOSIS OF CASES AND PREVENTION OF FURTHER CASES
2.1.3. 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
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
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
2.1.4. 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)**

All haying hen farms will be included in the sampling frame.

**Laying hens flocks**

The sampling programme will be according to the Annex of Regulation (EC) No 1168/2006 regarding the Community target for the reduction of certain salmonella serotypes in laying hens of Gallus gallus. Moreover, owners of layer holdings are obliged to perform tests for salmonella according to Part B of Annex II of Regulation (EC) No 2160/2003.

Methods of sampling (description of sampling techniques)

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

The sampling programme will be according to the Annex of Regulation (EC) No 1168/2006 regarding the Community target for the reduction of certain salmonella serotypes in laying hens of Gallus gallus. Moreover, owners of layer holdings are obliged to perform tests for salmonella according to Part B of Annex II of Regulation (EC) No 2160/2003.

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

The sampling programme will be according to the Annex of Regulation (EC) No 1168/2006 regarding the Community target for the reduction of certain salmonella serotypes in laying hens of Gallus gallus. Moreover, owners of layer holdings are obliged to perform tests for salmonella according to Part B of Annex II of Regulation (EC) No 2160/2003.

**Breeding flocks: Production period**

The sampling programme will be according to the Annex of Regulation (EC) No 1168/2006 regarding the Community target for the reduction of certain salmonella serotypes in laying hens of Gallus gallus. Moreover, owners of layer holdings are obliged to perform tests for salmonella according to Part B of Annex II of Regulation (EC) No 2160/2003.
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
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

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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
Results of the investigation

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

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

Additional information

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
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
2.1.5. Salmonella in feedingstuffs
2.1.6. Salmonella serovars and phagetype distribution

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

Antimicrobial resistance is the ability of certain microorganisms to survive or grow in the presence of a given concentration of antimicrobial agent that usually would kill or inhibit the microorganism species in question. Antimicrobial resistant Salmonella strains may be transferred from animals or foodstuffs to humans.

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
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
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
Suggestions to the Community for the actions to be taken

Measures in case of the positive findings or single cases

Notification system in place

Results of the investigation

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

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

Additional information

D. Antimicrobial resistance in Salmonella in foodstuff derived from cattle

Sampling strategy used in monitoring

Frequency of the sampling

Type of specimen taken

Methods of sampling (description of sampling techniques)

Procedures for the selection of isolates for antimicrobial testing

Methods used for collecting data
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
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. Campylobacteriosis in humans

A. Thermophilic Campylobacter in humans

Reporting system in place for the human cases

YES SINCE JANUARY 2005

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/ analytical methods used

EU RECOMMENDED MICROBIOLOGY LABORATORY RECOMMENDED CRITERIA FOR DIAGNOSIS

Notification system in place

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

History of the disease and/ or infection in the country

NOT APPLICABLE

Results of the investigation

NOT APPLICABLE

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

NOT APPLICABLE

Relevance as zoonotic disease

IT HAS RECENTLY BEEN DECLARED MANDATORY NOTIFIABLE DISEASE AND THEREFORE NO DATA ARE AVAILABLE FOR 2004.
### Table Campylobacter in humans - Species/ serotype distribution

<table>
<thead>
<tr>
<th>Campylobacter</th>
<th>Cases</th>
<th>Cases Inc.</th>
<th>Autochthon cases</th>
<th>Autochthon Inc.</th>
<th>Imported cases</th>
<th>Imported Inc.</th>
<th>Unknown status</th>
</tr>
</thead>
<tbody>
<tr>
<td>C. coli</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C. jejuni</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>C. upsaliensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Footnote**

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>All</th>
<th>M</th>
<th>F</th>
<th>All</th>
<th>M</th>
<th>F</th>
<th>All</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>1 to 4 years</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>5 to 14 years</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>15 to 24 years</td>
<td></td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>25 to 44 years</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>45 to 64 years</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and older</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age unknown</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total:</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Footnote**

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
### Table Campylobacter in humans - Seasonal distribution

<table>
<thead>
<tr>
<th>Month</th>
<th>C. coli (Cases)</th>
<th>C. jejuni (Cases)</th>
<th>C. upsaliensis (Cases)</th>
<th>Campylobacter spp., unspecified (Cases)</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>June</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>July</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>August</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>September</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>October</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>not known</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
2.2.3. Campylobacter in foodstuffs

A. Thermophilic Campylobacter in Broiler meat and products thereof

Monitoring system

Sampling strategy

At slaughterhouse and cutting plant
NO DATA AVAILABLE

At meat processing plant
NO DATA AVAILABLE

At retail
NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

At slaughterhouse and cutting plant
NO DATA AVAILABLE

At meat processing plant
NO DATA AVAILABLE

At retail
NO DATA AVAILABLE

Definition of positive finding

At slaughterhouse and cutting plant
NO DATA AVAILABLE

At meat processing plant
NO DATA AVAILABLE

At retail
NO DATA AVAILABLE

Preventive measures in place
NO DATA AVAILABLE

Control program/ mechanisms
The control program/ strategies in place
NO DATA AVAILABLE

Recent actions taken to control the zoonoses
NO DATA AVAILABLE

Suggestions to the Community for the actions to be taken
NO DATA AVAILABLE

Measures in case of the positive findings or single cases
NO DATA AVAILABLE

Notification system in place
NO DATA AVAILABLE

Results of the investigation
NO DATA AVAILABLE

National evaluation of the recent situation, the trends and sources of infection
NO DATA AVAILABLE

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)
NO DATA AVAILABLE

Additional information
NO DATA AVAILABLE
2.2.4. Campylobacter in animals

A. Thermophilic Campylobacter in Gallus gallus

Monitoring system

Sampling strategy

NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)

Rearing period

NO DATA AVAILABLE

Before slaughter at farm

NO DATA AVAILABLE

At slaughter

NO DATA AVAILABLE

Case definition

Rearing period

NO DATA AVAILABLE

Before slaughter at farm

NO DATA AVAILABLE

At slaughter

NO DATA AVAILABLE

Vaccination policy

NO DATA AVAILABLE

Other preventive measures than vaccination in place

NO DATA AVAILABLE

Control program/ mechanisms

The control program/ strategies in place

NO DATA AVAILABLE

Recent actions taken to control the zoonoses
Suggestions to the Community for the actions to be taken
NO DATA AVAILABLE

Measures in case of the positive findings or single cases
NO DATA AVAILABLE

Notification system in place
NO DATA AVAILABLE

Results of the investigation
NO DATA AVAILABLE

National evaluation of the recent situation, the trends and sources of infection
NO DATA AVAILABLE

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)
NO DATA AVAILABLE

Additional information
NO DATA AVAILABLE
2.2.5. Antimicrobial resistance in Campylobacter isolates

A. Antimicrobial resistance in Campylobacter jejuni and coli in cattle

Sampling strategy used in monitoring

Frequency of the sampling
NO DATA AVAILABLE

Type of specimen taken
NO DATA AVAILABLE

Methods of sampling (description of sampling techniques)
NO DATA AVAILABLE

Procedures for the selection of isolates for antimicrobial testing
NO DATA AVAILABLE

Methods used for collecting data
NO DATA AVAILABLE

Laboratory methodology used for identification of the microbial isolates
NO DATA AVAILABLE

Laboratory used for detection for resistance

Antimicrobials included in monitoring
NO DATA AVAILABLE

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
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. Listeriosis in humans

**A. Listeriosis in humans**

**Reporting system in place for the human cases**

YES, SINCE JANUARY 2005

**Case definition**

EU RECOMMENDED CASE DEFINITION

**Diagnostic/ analytical methods used**

EU RECOMMENDED MICROBIOLOGY LABORATORY CRITERIA

**Notification system in place**

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

**History of the disease and/ or infection in the country**

NOT APPLICABLE

**Results of the investigation**

NOT APPLICABLE

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

NOT APPLICABLE

**Relevance as zoonotic disease**

IT HAS RECENTLY BEEN DECLARED AS A MANDATORY NOTIFIABLE DISEASE AND THEREFORE NO DATA ARE AVAILABLE FOR 2004.
### Table Listeria in humans - Species/ serotype distribution

<table>
<thead>
<tr>
<th>Species</th>
<th>Cases</th>
<th>Cases Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listeria</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Listeria spp.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congenital cases</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deaths</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
## Table Listeria in humans - Age distribution

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>L. monocytogenes</th>
<th>Listeria spp.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>M</td>
</tr>
<tr>
<td>&lt;1 year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 4 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 to 14 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 44 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 to 64 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and older</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age unknown</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
2.3.3. Listeria in foodstuffs

2.3.4. 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. E. Coli Infections in humans

A. Verotoxigenic Escherichia coli infections in humans

- Reporting system in place for the human cases
  YES, SINCE JANUARY 2005 FOLLOWING AMENDMENT OF THE LEGISLATION

- Case definition
  EU RECOMMENDED CASE DEFINITION

- Diagnostic/ analytical methods used
  EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSIS

- Notification system in place
  QUARANTINE (PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS. NOTIFIABLE SINCE JANUARY 2005

- History of the disease and/ or infection in the country
  NOT APPLICABLE

- Results of the investigation
  NOT APPLICABLE

- National evaluation of the recent situation, the trends and sources of infection
  NOT APPLICABLE

- Relevance as zoonotic disease
  IT HAS RECENTLY BEEN DECLARED AS A MANDATORY NOTIFIABLE DISEASE THEREFORE NO DATA ARE AVAILABLE FOR 2004.
2.4.3. *Escherichia coli*, pathogenic in foodstuffs

2.4.4. *Escherichia coli*, pathogenic in animals

**A. Verotoxigenic *Escherichia coli* in cattle (bovine animals)**

Monitoring system

**Sampling strategy**

NO DATA AVAILABLE

**Methods of sampling (description of sampling techniques)**

**Animals at farm**

NO DATA AVAILABLE

**Animals at slaughter (herd based approach)**

NO DATA AVAILABLE

**Case definition**

**Animals at farm**

NO DATA AVAILABLE

**Animals at slaughter (herd based approach)**

NO DATA AVAILABLE

**Vaccination policy**

NO DATA AVAILABLE

**Other preventive measures than vaccination in place**

NO DATA AVAILABLE

**Control program/ mechanisms**

**The control program/ strategies in place**

NO DATA AVAILABLE

**Recent actions taken to control the zoonoses**

NO DATA AVAILABLE

**Suggestions to the Community for the actions to be taken**

NO DATA AVAILABLE
Measures in case of the positive findings or single cases
NO DATA AVAILABLE

Notification system in place
NO DATA AVAILABLE

Results of the investigation
NO DATA AVAILABLE

National evaluation of the recent situation, the trends and sources of infection
NO DATA AVAILABLE

Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)
NO DATA AVAILABLE

Additional information
NO DATA AVAILABLE
2.5. **TUBERCULOSIS, MYCOBACTERIAL DISEASES**

2.5.1. General evaluation of the national situation

### A. Tuberculosis general evaluation

**History of the disease and/or infection in the country**

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

In 2006, 110 holdings retained the Bovine Tuberculosis Officially Free Status (BTBOFS) and 38 holdings have been assigned the BTBOFS. The target number of holdings was 326. One animal has reacted inconclusively to the single intradermal testing. This animal was led to the slaughterhouse and pathological material for the confirmation of M. bovis was taken from lymphnodes (retropharyngeal, mediastinal and mesenteric lymph nodes) and from parenchymatous organs (lungs, liver, spleen). The animal did not present any pathological lesions during post-mortem examination and all the samples were examined microbiologically (examination of stained smears and cultivation). None sample gave a positive result.

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

In 2007, 100 holdings retained the Bovine Tuberculosis Officially Free Status (BTBOFS) and 43 holdings have been assigned the BTBOFS. The target number of holdings was 319

**Recent actions taken to control the zoonoses**

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

A. Tuberculosis due to Mycobacterium bovis in humans

Reporting system in place for the human cases
YES, SINCE 1932

Case definition
EU RECOMMENDED CASE DEFINITION

Diagnostic/ analytical methods used
EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSTIC CRITERIA

Notification system in place
QUARANTINE (PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS.

History of the disease and/ or infection in the country
BOVINE TB HASN'T BEEN A PROBLEM FOR HUMANS IN CYPRUS.

Relevance as zoonotic disease
THOUGH BOVINE TUBERCULOSIS IS NOT A PROBLEM IN HUMANS IN CYPRUS, WE RECOGNISE THE NEED FOR CONTINUOUS COLLABORATION IN THE AREA WITH THE VETERINARY SERVICES AS WELL AS ACTIVE SURVEILLANCE
2.5.3. Mycobacterium in animals

A. Mycobacterium bovis in bovine animals

Status as officially free of bovine tuberculosis during the reporting year

The entire country free

In 2007, 100 holdings retained the Bovine Tuberculosis Officially Free Status (BTBOFS) and 43 holdings were assigned the TBOFS. The target number of holdings was 319.

Free regions

Almost all the bovine herds in the districts of Lemesos and Paphos are Tuberculosis Officially Free. The procedure for declaring these regions as Tuberculosis Officially Free Regions will commence as soon as all herds are officially declared Tuberculosis free.

Monitoring system

Sampling strategy

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

Frequency of the sampling

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

Type of specimen taken

Other: Tuberculosis skin reaction

Methods of sampling (description of sampling techniques)

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

Case definition

If an animal yields a positive reaction to the single intradermal test (Bovine tuberculin) it is further examined with the comparative intradermal test (Bovine and Avian tuberculin). If it yields a positive reaction to the second test it is considered positive; the animal is slaughtered, necrotomically examined for tuberculosis’ lesions and samples are taken for laboratory in order to detect M. bovis in the case of positive necrotomical findings.

Diagnostic/ analytical methods used

1) Single and comparative Tuberculin skin tests (Bovine and Avian tuberculin)
2) Post-mortem examination.
3) Microbiological examination.

**Vaccination policy**

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

**Other preventive measures than vaccination in place**

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

**Control program/ mechanisms**

**The control program/ strategies in place**

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

**Recent actions taken to control the zoonoses**

Testing, monitoring and surveillance.

**Measures in case of the positive findings or single cases**

The animal is slaughtered and samples are taken for the laboratory (microbiological) isolation of M. bovis. Movement restrictions are imposed on the herd and the milk must be pasteurized. If the presence of tuberculosis is not confirmed laboratorily, the already applied movement restrictions are lifted following a negative test applied on all animals over six weeks of age. The test is conducted at least 42 days after the removal of the reactors animals. On the other hand if tuberculosis is laboratorily confirmed, movement restrictions are lifted when cleansing and disinfection of the premises and utensils has been completed and all animals over six weeks of age have reacted negatively to at least two consecutive tuberculin tests. The first one conducted not less than 60 days and the second not less than four months and no more than 12 after the removal of the last positive animal.

**Notification system in place**

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

**Results of the investigation**

In 2007, 100 holdings retained the Bovine Tuberculosis Officially Free Status (BTBOFS) and 43 holdings have been assigned the BTBOFS. The target number of holdings was 319.

**National evaluation of the recent situation, the trends and sources of infection**
None animal reacted positively in 2007.

**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 in countries and regions that do not receive Community co-financing for eradication programmes

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number of existing bovine</th>
<th>Officially free herds</th>
<th>Infected herds</th>
<th>Routine tuberculin testing</th>
<th>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)</th>
<th>Number of animals with suspicious lesions of tuberculosis examined and submitted to histopathological and bacteriological examinations</th>
<th>Number of animals detected positive in bacteriological examination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Herds</td>
<td>Animals</td>
<td>Number of herds</td>
<td>%</td>
<td>Number of herds</td>
<td>%</td>
<td>Interval between routine tuberculin tests (*)</td>
</tr>
<tr>
<td>Lefkosia</td>
<td>353</td>
<td>54476</td>
<td>143</td>
<td>40.51</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Lemesos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larnaca</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paphos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammochostos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KYPROS / KIBRIS</td>
<td>353</td>
<td>54476</td>
<td>143</td>
<td>40.51</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>353</td>
<td>54476</td>
<td>143</td>
<td>40.51</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
</tbody>
</table>

### Footnote

A six month interval between routine tuberculin tests is required for the BTBOFS to be assigned to a herd. After that the interval between the TB tests carried in a herd in order for it to withstand the BTBOFS is one year.

### (*) Legend:

In column "Interval between routine tuberculin tests" use the following numeric codes: (0) no routine tests; (1) tests once a year; (2) tests each two years; (3) tests each three years concerning 24 month-old animals; (4) tests each 4 years; (5) others (please give details).
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 2006, the prevalence and incidence of bovine, as well as, ovine and caprine brucellosis in Cyprus have decreased dramatically. Possible sources of infection in a herd or a flock are:

- 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 no human cases of brucellosis during 2006.

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. Brucellosis in humans

A. Brucellosis in humans

Reporting system in place for the human cases
YES, SINCE 1983

Case definition
EU RECOMMENDED CASE DEFINITION SINCE JANUARY 2004

Diagnostic/ analytical methods used
EU RECOMMENDED MICROBIOLOGY LABORATORY DIAGNOSTIC CRITERIA SINCE JANUARY 2004

Notification system in place
QUARANTINE (PUBLIC HEALTH) LAW AND REGULATIONS AND AMENDMENTS. MANDATORY NOTIFIABLE.

History of the disease and/ or infection in the country
SPORADIC CASES OF BRUCELLOSIS WERE REPORTED OVER THE YEARS. THE ONLY CASE IN 2004 WAS OCCUPATION RELATED

Relevance as zoonotic disease
SPORADIC CASES OF BRUCELLOSIS WERE REPORTED OVER THE YEARS. THERE IS A CONTINUOUS COLLABORATION WITH THE VETERINARY SERVICES, AS ON THE AREA CONTROLLED BY THE VETERINARY SERVICES OF THE REPUBLIC OF CYPRUS. A BRUCELLOSIS ERADICATION PROGRAMME IS IN PLACE AS OF 2001. CLINICIANS ARE ALERTED ABOUT THE POSSIBILITY OF DIAGNOSIS AND A SYSTEM FOR SURVEILLANCE IS IN PLACE
### Table Brucella in humans - Species/serotype distribution

<table>
<thead>
<tr>
<th>Brucella</th>
<th>Cases</th>
<th>Cases Inc.</th>
<th>Autochthon cases</th>
<th>Autochthon Inc.</th>
<th>Imported cases</th>
<th>Imported Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. abortus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B. melitensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. suis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational cases</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
Table Brucella in humans - Age distribution

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>B. abortus</th>
<th>B. melitensis</th>
<th>Brucella spp.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>&lt;1 year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 4 years</td>
<td></td>
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</tr>
<tr>
<td>5 to 14 years</td>
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</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 44 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 to 64 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and older</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
2.6.3. Brucella in foodstuffs

Table Brucella in food

<table>
<thead>
<tr>
<th>Sampling unit</th>
<th>Units tested</th>
<th>Total units positive for Brucella spp.</th>
<th>B. melitensis</th>
<th>B. abortus</th>
<th>B. suis</th>
<th>Brucella spp., unspecified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source of information</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Footnote

No data available
2.6.4. 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 goats

   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 cup bottles (30 ml). Samples are stored at 2-4°C, 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 ¼ until 1/256, sera are inactivated in water bath in tubes and then transferred to 96 well U micro plates. Warm fixation follows. All reagents are commercially purchased and each time the batch or the company changes titration of the reagents takes place. In each day test controls of complement, antigen, blood as well as positive and negative controls are used. Also, for each sample examined there is anticomplimentary control.

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

**Recent actions taken to control the zoonoses**

**Application of brucellosis eradication program.**

**Measures in case of the positive findings or single cases**

Once there is a confirmation of a positive case:

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

**Notification system in place**

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

**Results of the investigation**

Link to tables

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

The progress of eradication program was very satisfactory, with both the prevalence and incidence of bovine brucellosis in Cyprus reached zero levels by the end of 2007.
Relevance of the findings in animals to findings in foodstuffs and to human cases (as a source of infection)

There were no human cases of brucellosis during 2007.

Additional information

As far as it concerns the declaration of officially free herds 254 out of 330 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 ¼ until 1/ 256 is used, sera are inactivated in water bath in tubes and then transferred to 96 well U micro plates. Warm fixation follows. All reagents are commercially purchased and each time the batch or the company changes titration of the reagents takes place. In each day test controls of complement, antigen, blood as well as positive and negative controls are used. Also, for each sample examined there is anticomplimentary control. Isolation: On Brucella medium incubating in 37 C with and without CO2. Confirmation on the species level: Dye of the colony with Gram and Stamp. Culture on Mc Conkey agar (lactose fermentation) and Blood agar (Haemolysis).

**Vaccination policy**

VACCINATION IS PROHIBITED

**Other preventive measures than vaccination in place**

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

**Control program/ mechanisms**

The control program/ strategies in place

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

Recent actions taken to control the zoonoses

Application of brucellosis eradication program.

**Measures in case of the positive findings or single cases**

Once there is a confirmation of a positive case:

a. The farm is placed under movement restrictions.

b. The milk collecting Organizations are notified so as the milk originating from the infected farms to be collected in separate milk tanks for pasteurization.

c. Seropositive sheep and goats are isolated from the other animals to be slaughtered in the designated slaughterhouse. In case there is stamping out decision restocking is permitted after 6 months.

d. Seropositive animals are valued before slaughter. Compensations at a level of 100% of their reproductive value are paid to owners.
e. Dogs and animals of other species which are known to be susceptible to brucellosis are serologically examined too.
f. One month after the slaughter, all sheep and goats over six months old are serologically reexamined.
g. Serological reexamination of the confirmed positive flocks is performed every month, and the seropositive animals are culled.
h. Farms' cleaning and disinfection is done under the supervision of the Veterinary Services, with disinfectants being provided on a free basis by the Veterinary Services.
i. The pasture after being collected and disinfected is buried in a place far away from the establishments.

**Notification system in place**

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

**Results of the investigation**

Link to relevant tables

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

Both the prevalence and incidence of ovine and caprine brucellosis decreased further and remained at very low levels in 2007.

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

There were no human cases of brucellosis during 2007.

**Additional information**

As far as it concerns the declaration of officially free herds 2,300 out of 3,439 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

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<tr>
<th>Region</th>
<th>Total number of herds</th>
<th>Total number of herds under the programme</th>
<th>Number of positive herds</th>
<th>Number of new positive herds depopulated</th>
<th>% positive herds depopulated</th>
<th>% herd coverage</th>
<th>% positive herds - period herd prevalence</th>
<th>% new positive herds - herd incidence</th>
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Table Bovine brucellosis - data on status of herds at the end of the period - Community co-financed eradication programmes

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

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<th>Total number of herds</th>
<th>Total number of herds under the programme</th>
<th>Number of herds checked</th>
<th>Number of positive herds</th>
<th>Number of new positive herds</th>
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<th>% positive herds depopulated</th>
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<tr>
<td>KYPROS / KIBRIS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3583</td>
<td>3439</td>
<td>2946</td>
<td>3</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>12.5</td>
</tr>
<tr>
<td>Total - 1</td>
<td>3855</td>
<td>3722</td>
<td>3210</td>
<td>8</td>
<td>6</td>
<td>1</td>
<td>12.5</td>
<td>86.264</td>
</tr>
</tbody>
</table>
### Table Ovine or Caprine brucellosis - data on animals - Community co-financed eradication programmes

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number of animals</th>
<th>Number of animals to be tested under the programme</th>
<th>Number of animals tested</th>
<th>Number of animals tested individually</th>
<th>Number of positive animals</th>
<th>Slaughtering</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lefkosia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lemesos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larnaca</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paphos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammochostos</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>KYPROS / KIBRIS</strong></td>
<td>620106</td>
<td>570829</td>
<td>243700</td>
<td>243700</td>
<td>3</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>620106</td>
<td>570829</td>
<td>243700</td>
<td>243700</td>
<td>3</td>
<td>3</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total - 1</strong></td>
<td>627249</td>
<td>584266</td>
<td>326543</td>
<td>326543</td>
<td>77</td>
<td>77</td>
<td>755</td>
</tr>
</tbody>
</table>
Table Ovine or Caprine brucellosis - data on status of herds at the end of the period - Community co-financed eradication programmes

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number of herds and animals under the programme</th>
<th>Status of herds and animals under the programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Herds</td>
<td>Animals</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Lefkosia</td>
<td>3439</td>
<td>570829</td>
</tr>
<tr>
<td>Lemesos</td>
<td>5409</td>
<td>570829</td>
</tr>
<tr>
<td>Larnaca</td>
<td>5409</td>
<td>570829</td>
</tr>
<tr>
<td>Paphos</td>
<td>5409</td>
<td>570829</td>
</tr>
<tr>
<td>KYPRE / KIBRIS</td>
<td>3439</td>
<td>570829</td>
</tr>
<tr>
<td>Total</td>
<td>3722</td>
<td>584266</td>
</tr>
</tbody>
</table>
2.7. **YERSINIOSIS**

2.7.1. General evaluation of the national situation

A. *Yersinia enterocolitica* general evaluation

- **History of the disease and/or infection in the country**
  
  NO DATA AVAILABLE

- **National evaluation of the recent situation, the trends and sources of infection**
  
  NO DATA AVAILABLE

- **Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)**
  
  NO DATA AVAILABLE

- **Recent actions taken to control the zoonoses**
  
  NO DATA AVAILABLE

- **Suggestions to the Community for the actions to be taken**
  
  NO DATA AVAILABLE

- **Additional information**
  
  NO DATA AVAILABLE
2.7.2. Yersiniosis in humans

A. Yersinosis in humans

Reporting system in place for the human cases

YES SINCE JANUARY 2005

Case definition

EU RECOMMENDED CASE DEFINITION

Diagnostic/ analytical methods used

EU RECOMMENDED LABORATORY CRITERIA FOR DIAGNOSIS

Notification system in place

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

History of the disease and/ or infection in the country

NOT APPLICABLE

Results of the investigation

NOT APPLICABLE

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

NOT APPLICABLE

Relevance as zoonotic disease

AS IT HAS RECENTLY BEEN DECLARED AS MANDATORY NOTIFIABLE DISEASE THEREFORE NO DATA ARE AVAILABLE FOR 2004. WE CONSIDER IT A RELEVANT AS ZOONOTIC DISEASE.
### Table Yersinia in humans - Species/serotype distribution

<table>
<thead>
<tr>
<th>Yersinia</th>
<th>Cases</th>
<th>Cases Inc.</th>
<th>Autochthon cases</th>
<th>Autochthon Inc.</th>
<th>Imported cases</th>
<th>Imported Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y. enterocolitica</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Y. enterocolitica - O:3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y. enterocolitica - O:9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Footnote**

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
## Table Yersinia in humans - Age distribution

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>Y. enterocolitica</th>
<th></th>
<th></th>
<th></th>
<th>Yersinia spp.</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>M</td>
<td>F</td>
<td>All</td>
<td>M</td>
<td>F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 year</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 4 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 to 14 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 44 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 to 64 years</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and older</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age unknown</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
## Table Yersinia in humans - Seasonal distribution

<table>
<thead>
<tr>
<th>Month</th>
<th>Y. enterocolitica Cases</th>
<th>Yersinia spp. Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March</td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May</td>
<td></td>
<td></td>
</tr>
<tr>
<td>June</td>
<td></td>
<td></td>
</tr>
<tr>
<td>July</td>
<td></td>
<td></td>
</tr>
<tr>
<td>August</td>
<td></td>
<td></td>
</tr>
<tr>
<td>September</td>
<td></td>
<td></td>
</tr>
<tr>
<td>October</td>
<td></td>
<td></td>
</tr>
<tr>
<td>November</td>
<td></td>
<td></td>
</tr>
<tr>
<td>December</td>
<td></td>
<td></td>
</tr>
<tr>
<td>not known</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
2.7.3. Yersinia in foodstuffs

2.7.4. 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
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. TRICHINELLOSION

2.8.1. General evaluation of the national situation

2.8.2. Trichinellosis in humans

Table: Trichinella in humans - Species/serotype distribution

<table>
<thead>
<tr>
<th>Trichinella spp.</th>
<th>Cases Inc.</th>
<th>Autochthon Inc.</th>
<th>Autochthon cases</th>
<th>Imported Inc.</th>
<th>Imported cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichinella</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trichinella spp.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Footnote: The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
### Table Trichinella in humans - Age distribution

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>All</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 4 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 to 14 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 44 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 to 64 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and older</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Footnote**

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
## 2.8.3. Trichinella in animals

### Table Trichinella in animals

<table>
<thead>
<tr>
<th>Source of information</th>
<th>Sampling unit</th>
<th>Units tested</th>
<th>Total units positive for Trichinella spp.</th>
<th>T. spiralis</th>
<th>Trichinella spp., unspecified</th>
</tr>
</thead>
</table>
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 2007 the control of Echinococcosis/ Hydatidosis scheme has continued. Within this scheme, 25 dogs, were preventively treated with Pranziquantel. 111060 ovines, 171300 caprines, 11687 bovines and 572456 swines had been slaughtered in 2007 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 2007, 10637 Pranziquantel baits were spread covering the buffer zone and other areas, where movement of stray dogs was reported.
2.9.2. Echinococcosis in humans

A. Echinococcus spp. in humans

Reporting system in place for the human cases
YES

Case definition
EU RECOMMENDED CASE DEFINITION

Diagnostic/ analytical methods used
EU RECOMMENDED LABORATORY CRITERIA FOR DIAGNOSIS

Notification system in place
QUARANTINE(PUBLIC HEALTH) LAW AND REGULATIONS AND AMENDMENTS. IT IS A NOTIFIABLE DISEASE.

Relevance as zoonotic disease
SPORADIC CASES OF ECHINOCOCCUS ARE REPORTED YEARLY. SURVEILLANCE OF HUMAN CASES IS CONSIDERED IMPORTANT TO EVALUATE THE PREVENTIVE PROGRAMS IN ANIMALS
### Table Echinococcus in humans - Species/ serotype distribution

<table>
<thead>
<tr>
<th>Echinococcus</th>
<th>Cases</th>
<th>Cases Inc.</th>
<th>Autochthon cases</th>
<th>Autochthon Inc.</th>
<th>Imported cases</th>
<th>Imported Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>E. granulosus</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>E. multilocularis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Echinococcus spp.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Footnote**

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
Table Echinococcus in humans - Age distribution

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>E. granulosus</th>
<th>E. multilocularis</th>
<th>Echinococcus spp.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>&lt;1 year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 4 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 to 14 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 44 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 to 64 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and older</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Footnote

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
2.9.3. Echinococcus in animals
2.10. **TOXOPLASMOSIS**

2.10.1. General evaluation of the national situation

**A. Toxoplasmosis general evaluation**

- **History of the disease and/or infection in the country**
  NO DATA AVAILABLE

- **National evaluation of the recent situation, the trends and sources of infection**
  NO DATA AVAILABLE

- **Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)**
  NO DATA AVAILABLE

- **Recent actions taken to control the zoonoses**
  NO DATA AVAILABLE

- **Suggestions to the Community for the actions to be taken**
  NO DATA AVAILABLE

- **Additional information**
  NO DATA AVAILABLE
2.10.2. Toxoplasmosis in humans

A. Toxoplasmosis in humans

Reporting system in place for the human cases
YES, SINCE JANUARY 2005 FOLLOWING AMENDMENT OF THE LEGISLATION

Case definition
EU RECOMMENDED CASE DEFINITION

Diagnostic/analytical methods used
EU RECOMMENDED LABORATORY CRITERIA FOR DIAGNOSIS OF TOXOPLASMOSIS

Notification system in place
QUARANTINE (PUBLIC HEALTH) LAW AND REGULATIONS AND THEIR AMENDMENTS. NOTIFIABLE SINCE JANUARY 2005

History of the disease and/or infection in the country
NOT APPLICABLE

Results of the investigation
NOT APPLICABLE

National evaluation of the recent situation, the trends and sources of infection
NOT APPLICABLE

Relevance as zoonotic disease
NO DATA ARE AVAILABLE AS IT HAS RECENTLY BEEN INCLUDED IN THE LIST OF MANDATORY NOTIFIABLE DISEASES. WE CONSIDER THE DISEASE AS RELEVANT IN VIEW OF CONGENITAL TOXOPLASMOSIS
### Table Toxoplasma in humans - Species/ serotype distribution

<table>
<thead>
<tr>
<th>Toxoplasma</th>
<th>Cases</th>
<th>Cases Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toxoplasma spp.</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Congenital cases</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Footnote**

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
# Table Toxoplasma in humans - Age distribution

<table>
<thead>
<tr>
<th>Age Distribution</th>
<th>All</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1 year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 to 4 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 to 14 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 to 24 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25 to 44 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>45 to 64 years</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>65 years and older</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age unknown</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total:</strong></td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Footnote**

The information concerning the human aspect will be furnished by the colleagues of the Ministry of Health through the ECDC database.
2.10.3. *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. Rabies in humans

A. Rabies in humans

Reporting system in place for the human cases
YES.

Case definition
EU RECOMMENDED CASE DEFINITION SINCE JANUARY 2004

Diagnostic/ analytical methods used
EU RECOMMENDED MICROBIOLOGY LABORATORY CRITERIA

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

History of the disease and/or infection in the country
NO CASES OF RABIES HAVE BEEN REPORTED OVER THE LAST 30 YEARS AND CYPRUS IS A RABIES FREE COUNTRY
2.11.3. Lyssavirus (rabies) in animals

A. Rabies in dogs

Monitoring system

Sampling strategy

Cyprus is free from Rabies. Concerning the animals' entry into Cyprus either on a non commercial movement or on a commercial movement it is required that are duly vaccinated against Rabies. The time period prior in which the vaccination should have taken place depends on the country of origin as provided by the EU Regulation 998/ 2003/ EK and the related EU Decisions. Animals originating from EU countries and third countries which are considered of equal to the EU member states Rabies status (mentioned in Part B, section 2 and Part C of Annex II of Regulation 998/ 2003/ EK) are required to be vaccinated/ revaccinated against Rabies at least 30 days prior 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
2.12. Q-FEVER

2.12.1. General evaluation of the national situation

2.12.2. Coxiella (Q-fever) in animals
3. INFORMATION ON SPECIFIC INDICATORS OF ANTIMICROBIAL RESISTANCE
3.1. ENTEROCOCCUS, NON-PATHOGENIC

3.1.1. General evaluation of the national situation
3.1.2. Antimicrobial resistance in Enterococcus, non-pathogenic isolates
3.2. *ESCHERICHIA COLI, NON-PATHOGENIC*

3.2.1. General evaluation of the national situation

A. *Escherichia coli general evaluation*

- **History of the disease and/or infection in the country**
  
  NO DATA AVAILABLE

- **National evaluation of the recent situation, the trends and sources of infection**
  
  NO DATA AVAILABLE

- **Relevance of the findings in animals, feedingstuffs and foodstuffs to human cases (as a source of infection)**
  
  NO DATA AVAILABLE

- **Recent actions taken to control the zoonoses**
  
  NO DATA AVAILABLE

- **Suggestions to the Community for the actions to be taken**
  
  NO DATA AVAILABLE

- **Additional information**
  
  NO DATA AVAILABLE
3.2.2. Antimicrobial resistance in Escherichia coli, non-pathogenic isolates
4. INFORMATION ON SPECIFIC MICROBIOLOGICAL AGENTS
4.1. **HISTAMINE**

4.1.1. General evaluation of the national situation

4.1.2. Histamine in foodstuffs
4.2. **ENTEROBACTER SAKAZAKII**

4.2.1. General evaluation of the national situation

4.2.2. Enterobacter sakazakii in foodstuffs
4.3. **STAPHYLOCOCCAL ENTEROTOXINS**

4.3.1. General evaluation of the national situation

4.3.2. Staphylococcal enterotoxins in foodstuffs
5. 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
### Foodborne Outbreaks: summarized data

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<th>Total number of outbreaks</th>
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<th>Number of verified outbreaks</th>
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