Programmes for the eradication, control and monitoring of certain animal diseases and zoonoses

Control programme of Salmonella in breeding, laying and broiler flocks

Approved* for 2009 by Commission Decision 2008/897/EC

Estonia

* in accordance with Commission Decision 90/424/EEC
Part B

1. **Identification of the programme**

   Member State: Estonia

   Disease: infection of animals with zoonotic *Salmonella* spp

   Animal population covered by the programme: laying hens of *Gallus gallus*

   Year's of implementation: 01.01.2009-31.12.2009

   Reference of this document: State Programme on Monitoring and Surveillance of Animal Infectious Diseases

   Contact (name, phone, fax, e-mail): Dr Ago Pärtel, phone +372 605 17 10, fax +372 621 14 41, e-mail ago.partel@vet.agri. ee

   Date sent to the Commission: 30.04.2008

2. **Historical data on the epidemiological evolution of zoonotic salmonellosis specified in point 1**: Information on any routine, certain zoonotic salmonella in breeding poultry testing programmes in place:

In accordance with the Infectious Animal Disease Control Act, the annual volume of salmonella tests in laying hens of *Gallus gallus* is laid down by the State Program on Monitoring and Surveillance of Animal Infectious Diseases adopted by the General Director of the Veterinary and Food Board. Instructions for salmonella monitoring in laying hens of *Gallus gallus* are laid down in the Ministry of Agriculture Regulation No 46, 29.03.2007, which also provides guidelines for the prevention and control of salmonella in laying hens of *Gallus gallus* and for the handling of products originating from suspected or infected birds.

- Protection of laying hens of *Gallus gallus* from Salmonella infection is a part of active control programme - the National Infectious Animal Disease Control Programme.

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A concise description is given with data on the target population (species, number of flocks/herds and animals present and under the programme), the main measures (testing, testing and slaughter, testing and killing, qualification of flocks/herds and animals, vaccination) and the main results (incidence, prevalence, qualification of flocks/herds and animals). The information is given for distinct periods if the measures were substantially modified. The information is documented by relevant summary epidemiological tables, graphs or maps.
Salmonella serovars isolated: S. Infantis, S. Enteritidis.

Negative.

Salmonella enteritidis was detected in dusty material in another poultry breed in the same county. All other samples collected and investigated turned out to be negative. Salmonella enteritidis was detected in dusty material and manure inside feeders samples in one holding in Lake Vienna County. Salmonella positive results were found in 2 hens out of 35 hens tested in 11 holdings.

30.09.2003

The results of the baseline study on the prevalence of salmonella in laying hens of Gallus Gallus caught on 15-6-2003 in 4,497 hens in 11 farms in Lake Vienna County.

<table>
<thead>
<tr>
<th>Number of Laying Hens by Number of Hens Present</th>
<th>82987</th>
<th>2414</th>
<th>10-01-0000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>6575</td>
<td>101-1000</td>
<td></td>
</tr>
<tr>
<td>&lt;1000</td>
<td>113953</td>
<td>50-10000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>113953</td>
<td>50-10000</td>
<td></td>
</tr>
</tbody>
</table>

Number of laying hens hens by number of hens present

<table>
<thead>
<tr>
<th>Number of Laying Hens by Number of Hens Present</th>
<th>23</th>
<th>120</th>
<th>5397</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>25</td>
<td>101-1000</td>
<td></td>
</tr>
<tr>
<td>&lt;1000</td>
<td>352</td>
<td>50-1000</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>352</td>
<td>50-1000</td>
<td></td>
</tr>
</tbody>
</table>

will be performed in all holdings with more than 50 hens.

In Esposa there are 22 large hens with laying hens (1000 laying hens or more present) and 247 small hens with laying hens (50-1000 laying hens), Sample is taken at 20%.

The structure of laying hens of Gallus Gallus.

10-02-2003

1.02.2003

"2002.02.10"
Prevalence of Salmonella spp. in holdings: 16%.

Number and prevalence of Salmonella spp. positive holdings by size category

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>350-499</th>
<th>500-999</th>
<th>1000-2999</th>
<th>3000-4999</th>
<th>5000-9999</th>
<th>10000-29999</th>
<th>&gt;=30000</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTONIA</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>pos. Salmonella spp.</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>prevalence</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20</td>
</tr>
</tbody>
</table>

Prevalence of S. Enteritidis and Typhimurium: prevalence of S. Enteritidis is 8%, prevalence of Typhimurium is 0%.

Number and prevalence of S. Enteritidis positive holdings by size category

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>350-499</th>
<th>500-999</th>
<th>1000-2999</th>
<th>3000-4999</th>
<th>5000-9999</th>
<th>10000-29999</th>
<th>&gt;=30000</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTONIA</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>pos. S. Enteritidis</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>prevalence</td>
<td>8</td>
<td>0</td>
<td>0</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Number and prevalence of S. Typhimurium positive holdings by size category

<table>
<thead>
<tr>
<th></th>
<th>TOTAL</th>
<th>350-499</th>
<th>500-999</th>
<th>1000-2999</th>
<th>3000-4999</th>
<th>5000-9999</th>
<th>10000-29999</th>
<th>&gt;=30000</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESTONIA</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>pos. S. Typhimurium</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>
<tr>
<td>prevalence</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>
In 2006, 25 eels of 14 species were quarantined. Eel larvae were found to be positive for *Plumularia* spp.:

<table>
<thead>
<tr>
<th>Holding</th>
<th>Samples Tested</th>
<th>Positive Samples</th>
<th>Total Samples Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td>York</td>
<td>10</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Maine</td>
<td>12</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Narragansett</td>
<td>8</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Long Island</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Seabrook</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Eastham</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Cape May</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Toms River</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Data shown additional sampling carried out in the holdings under the study in the period from 01.10.04 to 31.10.2005.
3. **Description of the submitted programme**: 

The monitoring and surveillance in the field of animal health is performed on the basis of the State Programme on Monitoring and Surveillance of Animal Infectious Diseases. This is an annual programme based on the Animal Infectious Disease Control Act and approved by the Decree of VFB Director General.

State Programme on Monitoring and Surveillance of Animal Infectious Diseases 2008:

**Monitoring:** According to the regulation No 46, (29.03.2007) if salmonella is suspected in laying hens flocks of Gallus gallus, the official veterinarian is obligated to take action to confirm the diagnosis and prevent the spread of the disease.

This process is performed by fully state operated veterinary service. Activities are co-ordinated by Veterinary and Food Board (VFB). VFB is having the central competence on veterinary and food control matters. Samples are collected by the official veterinarians of local veterinary centre. Abovementioned officials are also responsible for filling in accompanying documents and sampling report, informing the laboratory about arrival of samples, packaging of them and sending to the laboratory. Samples are sent to the Estonian Veterinary and Food Laboratory (VFL) by fast mail or courier. All samples collected are investigated in the Veterinary and Food Laboratory situated in Tallinn (Vaike-Peala 3, Tallinn 11415, phone +372 603 58 10, fax +372 603 58). For future serotyping and phagotyping, a proportion of the typeable strains and non-typeable isolates are sent to the CRL Microbiological Laboratory for Health Protection in Bilthoven The Netherlands. CRL should confirm the results. For epidemiological purpose, we are testing also anti-microbial susceptibility of serotypes. Interpretable breakpoints are based on NCCLS criteria.

Testing scheme necessary to verify the achievement of the Community target for the reduction of Salmonella enteritidis, and Salmonella typhimurium in adult laying hens of Gallus gallus:

In order to monitor salmonellosis in birds, the owner or person responsible for the hatchery or birds flock shall examine at his expense the flocks and hatcheries in the proportions specified below. Once a year and in the case of bacteriological studies in the laying hens of *Gallus gallus* flock, in each 8 weeks the samples shall be replaced by official samples.

For the purposes of detecting salmonellas, the number of copro samples, boot swabs samples and dust samples, to be studied bacteriologically, depends on the size of birds flock.

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A concise description of the programme is given with the main objective(s) (monitoring, control, eradication, qualification of flocks/herds and/or regions, reducing prevalence and incidence), the main measures (testing, testing and slaughter, testing and killing, qualification of flocks/herds and animals, vaccination), the target animal population and the area(s) of implementation and the definition of a positive case.
Surveillance of salmonella in feed, animals and food is carried out for many years in Estonia. In addition to surveillance systems monitoring official controls at other stages of the food chain,

<table>
<thead>
<tr>
<th>Number of samples</th>
<th>Number of birds in the flock</th>
</tr>
</thead>
<tbody>
<tr>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>60-89</td>
<td>90-199</td>
</tr>
<tr>
<td>200</td>
<td>200-249</td>
</tr>
<tr>
<td>250-349</td>
<td>350-449</td>
</tr>
<tr>
<td>450-799</td>
<td>650-999</td>
</tr>
<tr>
<td>1000 and more</td>
<td>3000 and more</td>
</tr>
</tbody>
</table>

Examples of pooled samples and their processing:

<table>
<thead>
<tr>
<th>Weeks before slaughter</th>
<th>Pooling of samples</th>
<th>Processing of pooled samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Sangium at the initiative of the operator shall take place at least every fourth week. The first sampling shall take place at the age of 24 +/– 2 weeks.</td>
<td>By lab L1, 8 weeks before slaughter, 8 pooled samples are formed from each flock in amount recommended by Table 1.</td>
</tr>
</tbody>
</table>
Feed samples:

1) On the enterprises handling feedstuffs the final products shall be studied bacteriologically under the framework of monitoring and self-inspection.

2) From imported feedstuffs official samples shall be taken in the course of random inspection during their storing.

Food control:
Salmonella Monitoring Programme for Food of Animal Origin is established according to the Regulation of Minister of Agriculture No 46, 29.03.2007, “Prevention against salmonellosis”. This programme started in the year 2002 and is approved annually by the Director General of the Veterinary and Food Board. In the frames of this programme the fresh meat from poultry at cutting plants and roack skin at slaughterhouses, eggs from egg packaging centres and egg products are taken.

Measures taken by the competent authorities with regard to animals or products in which salmonella have been detected, in particular to protect public health; and any preventive measures taken, such as vaccination:

According to the Regulation No 46, if salmonella presence is suspected in laying hens of Gallus gallus the official veterinarian is obliged to take action to confirm the diagnosis and prevent the spread of the disease. The official veterinarian should find out the infection sources and their spreading ways, remove or block them. It is prohibited to take birds to a flock doubted to be infected or actually infected or to take them out, except for slaughter. All bird’s flocks (young birds, breeding flock, productive flock), where Salmonella spp. was diagnosed should be executed or sent immediately for slaughter or destroyed in accordance with Regulation No 1774/2002. After the flock infected by salmonellosis was sent to the slaughterhouse, the carriage boxes, transport boxes and transport means shall be cleaned, washed and disinfected. The litter of flocks infected by salmonellosis shall be composted away from the livestock buildings. Enclosures and inventory of poultry farm shall be cleaned, washed and disinfected after the litter of birds has been taken out and tested then bacteriologically for salmonellas. The dead and slaughtered birds shall be made harmless or utilised. Poultry buildings should be checked on the efficiency of deratisation, disinfection and on protection against wild birds. Empty period is required for 21 day. Disposal of manure is restricted. Feedingsuffs should be destroyed or heat-treated. Vaccination of birds is forbidden in Estonia.

In case of positive Salmonella findings at slaughterhouses and cutting plants, the extent of contamination and its sources should be investigated. Thorough cleaning and disinfection should be carried out and the effectiveness of cleaning procedures should be improved. Products derived from birds where salmonella was detected should be destroyed or considered as conditionally fit for human consumption and should be destined
The official veterinary officer inspects holdings regularly to check compliance with the programme.

Routine veterinary supervision of farms:

The Minister of Agriculture Regulation No. 46 of 1993 (R. 11.1) provides for the necessary legal framework for disease diagnosis, control, eradication, and monitoring of surveillance networks and contamination monitoring of zooses.

The infectious animal disease control act (R. 11.1) provides for the necessary legal framework for disease diagnosis, control, notification of diseases, measures to be taken in case of suspicion of contamination, eradication, containment, epidemiological surveillance, and the principles of veterinary control.

The supervision of animal health is based on the Veterinary Organization Act, which establishes the basis for the organization of veterinary control.

Relevant national legislation, including any national provisions concerning the activities referred to in Article 1 (3) (a):
Registration of farms:

All laying hens holdings in Estonia are covered by the State Programme on Monitoring and Surveillance of Animal Infectious Diseases and therefore also by the programme. Since 2000, all holdings with laying hens in Estonia are registered in the Central Register of Agricultural Animals.

Record-keeping at farms:

Each keeper of birds is required to keep an up-to-date register of poultry kept in the farm in manual or computerised form. The records shall reflect:
1) identification date of the animal or group of animal
2) name and administered quantity of the medicinal product or medicated feedingstuff used
3) data on the issuer of the medicinal product: the veterinarian or pharmacy
4) date of administration of the medicinal product and information about the person who administered the medicinal product
5) method of administration and treatment scheme prescribed by the veterinarian
6) prescribed withdrawal time.

Documents to accompany animals when dispatched:

While dispatched, animals must be accompanied with the veterinary certificate, where the basis of their state of health should be verified, certifying that the certain contagious animal diseases transmissible by the relevant animal species has not been detected in the place of the animals origin. On the basis of the Rules on the contagious animal diseases, the trade of poultry and animal products and/or products of animal origin shall be possible only when the poultry originate from a herd that is officially free of salmonellosis. Movements of the sick and injured animals to the slaughterhouse shall be carried out on the basis of a veterinary permission only. The period of validity of a veterinary permission is 24 hours since issuing.
Other relevant measures to ensure traceability of animals:
4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the programme:
First year: 2007    Last year: 2010

1 Control
   x Testing
   x Slaughter of animals tested positive
   x Killing of animals tested positive
   i) Vaccination
   x Treatment of animal products
   x Disposal of products

x Monitoring or surveillance

□ Other measures (specify):

□ Control/Eradication
   x Testing
   x Slaughter of animals tested positive
   x Killing of animals tested positive
   □ Extended slaughter or killing
   x Disposal of products

4.2. Designation of the central authority in charge of supervising and coordinating the departments responsible for implementing the programme

The Veterinary and Food Board, a governmental agency carrying out its tasks under the government of the Ministry of Agriculture, functions as a supervising body and sees to it that the requirements stipulated by the legislation that governs veterinary, food safety, market regulation, animal welfare and farm animal breeding are followed and executes supervision over fulfillment of these requirements and applies enforcement by state pursuant to the procedures and in the amount prescribed by law. In addition to the mentioned acts, VFB adheres in its professional activities the Trade, Import and Export of Animals and Animal Products Act, the Import and Export Veterinary Control Act, the Animal Protection Act, the Farm Animals Breeding Act, the Organic Farming Act, the Medicinal Products Act, the Common Agricultural Policy Implementation Act, the Feeding Stuffs Act and other legislation laid down pursuant to these acts.

1 Describe the authorities in charge of supervising and coordinating the departments responsible for implementing the programme and the different operators involved. Describe the responsibilities of all involved.

The Veterinary and Food Board consists of the Veterinary and Food Board and the Animal Health Office. The Veterinary and Food Board advises the Veterinary and Food Board on issues of animal health and welfare. The Animal Health Office is responsible for the formulation and implementation of policies and programs relating to animal health and welfare.

The organization of the Veterinary and Food Board consists of the Veterinary Office and 15 local offices - Veterinary Centers in the countryside.

In accordance with the Food Act, Veterinary activities are performed in order to ensure the safety, quality, and health of food and food products. The Veterinary and Food Board is responsible for the formulation and implementation of policies and programs relating to animal health and welfare. The Veterinary and Food Board is also responsible for the formulation and implementation of policies and programs relating to the safety and quality of food and food products.

- The Veterinary and Food Board is responsible for the formulation and implementation of policies and programs relating to animal health and welfare.
- The Veterinary and Food Board is responsible for the formulation and implementation of policies and programs relating to the safety and quality of food and food products.
- The Veterinary and Food Board is responsible for the formulation and implementation of policies and programs relating to the safety and quality of food and food products.
- the Food Department consists of the Office for Food of Non-Animal Origin and the Office for Food of Animal Origin.
- the Animal Breeding and Market Regulation Control Department consists of the Office of Animal Breeding Control, the Office of Genetic Resources and the Market Regulation Control Office.
- the Trade, Import and Export Department consists of the Surveillance and Control Office and six Border Inspection Posts, the Veterinary and Food Control Offices of Luhamaa, Paldiski, Narva, Paljassaare, Munga Port and Dirham.
- the General Department consists of the Accounting Office, the Budgeting Office, the Personnel Office, the Administrative Office, and the Public Relations and IT Office.

VFB employs currently 340 people, 114 work in the Central Office and 226 in the counties Veterinary Centres.

In addition to the above-mentioned employees, 158 authorised veterinarians hold an activity licence and they have been granted the authority to check the state of the objects that are within the competence of VFB pursuant to the Veterinary Activities Organisation Act. The Veterinary and Food Board is managed by the Director General - Ago Pärtel.

The structural units Animal Health and Welfare Department are the Animal Health Office and the Animal Welfare Office.

The Animal Health Office organizes infectious animal diseases control and applies measures for the protection of people from diseases common to both humans and animals and diseases that are spread by animals; executes supervision over the identification and registration of animals and conducts veterinary controls of movements of animals in the state; deals with the protection of the environment from harmful factors related to animal-keeping and animal diseases; controls the use of medicines and medicated feedingstuffs by veterinarians and animal-keepers producing animal products; arranges the work of the state veterinary service and coordinates and executes supervision over veterinary aid, treatment and prevention; grants approval to and organizes registration of buildings and facilities where animals are kept, advises on building design documentation; participates in the preparation and carrying out of state and international projects on animal health.

In executing its tasks:
- the Animal Health Office advises and carries out training courses for the supervisory officials of local offices (Veterinary Centres in the counties) and authorised veterinarians;
- coordinates and examines their work;
- issues precepts and decisions for correction of deficiencies;
- communicates with the officials of foreign countries, other authorities, ministries, public organisations (OIE, the European Commission, WHO, etc).

There is an animal health specialist in every county, who is responsible for solving the problems of this particular field. All personnel working in animal health and welfare field are veterinarians.
Describe the main administrative and geographical areas in which the programme is to be implemented.
4.4. Measures implemented under the programme

4.4.1. Measures and applicable legislation as regards the registration of holdings:

"No66, Registration of building in Estonia"

4.4.2. Measures and applicable legislation as regards the identification of animals:

"No77, identification of..."

4.4.3. Measures and applicable legislation as regards the notification of the disease:

"No34, Notification of the disease in Estonia"

4.4.4. Measures and applicable legislation as regards the measures in case of a positive result:

"No 46 Regulation salmonellosis in Estonia"

4.4.5. Measures and applicable legislation as regards the different qualifications of animals and herds:

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Where appropriate Community legislation is mentioned. Otherwise the national legislation is mentioned.

Not applicable for poultry.

A short description is provided of the measures as regards positive animals (slaughter, destination of carcasses, use or treatment of animal products, the destruction of all products which could transmit the disease or the treatment of such products to avoid any possible contamination, a procedure for the disinfection of infected holdings, a procedure for the restocking with healthy animals of holdings which have been depopulated by slaughter.

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A short description of the control procedures and in particular rules on the movement of animals liable to be affected or contaminated by a given disease and the

Regulation on requirements for control of salmonellosis approved by the decision of the Minister of Agriculture No. 46, 07.29.2007,


Regulation on requirements for control of Salmonella is approved by the decision of the Minister of Agriculture No. 46, 07.29.2007,

Regulation on requirements for control of Salmonella is approved by the decision of the Minister of Agriculture No. 46, 07.29.2007,

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Regulation on requirements for control of Salmonella is approved by the decision of the Minister of Agriculture No. 46, 07.29.2007,
5. **General description of the costs and benefits**

Bacteriological investigation of copro samples or boot swabs samples costs 17,9EUR

6. **Data on the epidemiological evolution during the last five years**

6.1. **Evolution of zoonotic salmonellosis**

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9 A description is provided of all costs for the authorities and society and the benefits for farmers and society in general.

10 The data on the evolution of zoonotic salmonellosis are provided according to the tables where appropriate.
### Year: 2005

**Situation on date:** 01.01-31.12.2005  
**Animal species:** laying hens of *Gallus gallus*  
**Disease/Infection:** Salmonella

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of flock</th>
<th>Total number of flocks</th>
<th>Total number of animals</th>
<th>Total number of flocks under the programme</th>
<th>Number of flocks checked</th>
<th>Number of positive* flocks</th>
<th>Number of flocks depopulated</th>
<th>Total number of animals slaughtered or destroyed</th>
<th>Quantity of eggs destroyed (number or kg)</th>
<th>Quantity of eggs channelled to egg products (number or kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>laying hens of <em>Gallus gallus</em></td>
<td>30</td>
<td>958242</td>
<td>30</td>
<td>30</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>10289</td>
</tr>
</tbody>
</table>

### Year: 2004

**Situation on date:** 01.01-31.12.2004  
**Animal species:** laying hens of *Gallus gallus*  
**Disease/Infection:** Salmonella

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of flock</th>
<th>Total number of flocks</th>
<th>Total number of animals</th>
<th>Total number of flocks under the programme</th>
<th>Number of flocks checked</th>
<th>Number of positive* flocks</th>
<th>Number of flocks depopulated</th>
<th>Total number of animals slaughtered or destroyed</th>
<th>Quantity of eggs destroyed (number or kg)</th>
<th>Quantity of eggs channelled to egg products (number or kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>laying hens of <em>Gallus gallus</em></td>
<td>29</td>
<td>798358</td>
<td>29</td>
<td>29</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

*Data to provide for salmonellosis (zoonotic salmonella), Salmonella pullorum, Salmonella gallinarum, Mycoplasma gallisepticum, Campylobacteriosis and agents thereof.*
<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
<td>(b)</td>
<td>(c)</td>
<td>(d)</td>
<td>(e)</td>
<td>(f)</td>
<td>(g)</td>
<td>(h)</td>
<td>(i)</td>
<td>(j)</td>
</tr>
</tbody>
</table>

- **Total number of hits/examination in the region including both the left and right wheels and non-redundant non-zero hits for the performance**
- For example, breaking locks (non-fatal, wheel locks, driver locks) losing brake pressure, brake failure, breaking thru....
- Region is defined in 2.4.2.9 for examination purposes of the Driver's License.
- For 2023:
  - Animal species: **Laying Hens of Golden Eagles**
  - Situation: On date: 01-01-2023
6.2. Stratified data on surveillance and laboratory tests

6.2.1. Stratified data on surveillance and laboratory tests (one table per year and per disease/species)

Year: 2007
Animal species: laying hens
Category: laying hens of Gallus gallus

Description of the used serological tests:

Description of the used microbiological or virological tests: The method recommended by the Community Reference Laboratory for Salmonella in Bithoven, the Netherlands, is used: the method is a modification of ISO 6579 (2002), where a semi-solid medium (MSRV) is used as the single selective enrichment medium. The semi-solid medium should be incubated at 41.5 +/- 1°C for 2x (24 +/- 3) hours.

At least one isolate from each positive sample shall be typed in the National Reference Laboratory for Salmonella. The National Reference Laboratory for Salmonella shall follow the Kauffman-White scheme.

Description of the other used tests:

Testing of Anti-microbial susceptibility:

For epidemiological purposes, where possible, one isolate per serotype per flock is used for anti-microbial susceptibility testing. Quantitative methods should be implemented and CLSI (previously NCCLS) standards should be used.

Phagetyping:
At least one isolate of S. Enteritidis and S. Typhimurium from each positive holding should be phagetyped, using the protocol defined by HPA Colindale, London.
<table>
<thead>
<tr>
<th>Year: 2003</th>
<th>Disease: salmonella</th>
<th>Animal species/category: laying hens of Gallus gallus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td>Serological tests</td>
<td>Microbiological or virological tests</td>
</tr>
<tr>
<td></td>
<td>Number of samples</td>
<td>Number of positive samples</td>
</tr>
<tr>
<td></td>
<td>tested ((a))</td>
<td>tested ((a))</td>
</tr>
<tr>
<td>Estonia</td>
<td>0</td>
<td>1123</td>
</tr>
<tr>
<td>Estonia</td>
<td>0</td>
<td>1123</td>
</tr>
</tbody>
</table>

(a) Animal species if necessary.
(b) Category/further specifications such as breeders, laying hens, broilers, breeding turkeys, breeder turkeys, breeding pigs, slaughter pigs, etc., when appropriate.
(c) Region as defined in the approved control and eradication programme of the Member State.
(d) Number of samples tested.
(c) Number of positive samples.
<table>
<thead>
<tr>
<th>Year</th>
<th>Impact of Animal Health on Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>Low (2%)</td>
</tr>
<tr>
<td>2021</td>
<td>Medium (5%)</td>
</tr>
</tbody>
</table>

Data on infection (one table per year and per species)
6.4. Data on vaccination programmes

Year: 2007
Animal species: (a) laying hens of Gallus gallus
Description of the used vaccination: no vaccination

<table>
<thead>
<tr>
<th>Region(s)</th>
<th>Total number of herds(b)</th>
<th>Total number of animals</th>
<th>Information on vaccination programme</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of herds(c) in vaccination programme</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(a) Animal species if necessary.
(b) Region as defined in the approved control and eradication programme of the Member State.
(c) Herds or flocks or holdings as appropriate.

---

Data to provide only if vaccination has been carried out.
7. Targets

7.1. Targets related to testing (one table for each year of implementation)

7.1.1. Targets on diagnostic tests

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of test</th>
<th>Target population</th>
<th>Type of sample</th>
<th>Objective</th>
<th>Number of planned tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isonia</td>
<td>bacteriological</td>
<td>laying hens</td>
<td>faeces samples or hoof swabs, dust samples</td>
<td>surveillance</td>
<td>800</td>
</tr>
</tbody>
</table>

(a) Species if necessary.
(b) Region as defined in the approved control and eradication programme of the Member State.
(c) Description of the test.
(d) Specification of the targeted species and the categories of targeted animals if necessary.
(e) Description of the sample (for instance faeces).
(f) Description of the objective (for instance surveillance, monitoring, control of vaccination).
### Targets on testing of flocks

**Year:**

**Animal species:** laying hens of Gallus gallus

**Situation on date:** 01.01-31.12.2009

**Infection:** Salmonella

<table>
<thead>
<tr>
<th>Region (a1)</th>
<th>Type of flock (b)</th>
<th>Total number of flocks (c1)</th>
<th>Total number of animals (c2)</th>
<th>Total number of flocks under the programme (c3)</th>
<th>Total number of animals under the programme (c4)</th>
<th>Expected number of flocks to be checked (d)</th>
<th>Number of flocks (e) expected to be positive (f)</th>
<th>Number of flocks (g) expected to be depopulated (h)</th>
<th>Total number of animals expected to be slaughtered or destroyed (i)</th>
<th>Expected quantity of eggs to be channelled to egg products (number or kg) (j)</th>
<th>Expected quantity of eggs channelled to egg products (number or kg) (k)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>laying hens</td>
<td>61</td>
<td>1453806</td>
<td>61</td>
<td>1453806</td>
<td>61</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>laying hens</td>
<td>61</td>
<td>1453806</td>
<td>61</td>
<td>1453806</td>
<td>61</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

(a) For zoonotic salmonellosis indicate the serotypes covered by the control programmes: (a1) for Salmonella Enteritidis, (a2) for Salmonella Typhimurium, (a3) for other serotypes specify as appropriate, (a4) for Salmonella Enteritidis or Salmonella Typhimurium.

(b) Region as defined in the approved control and eradication programme of the Member State.

(c) For example, breeding flocks (rearing, adult flocks), production flocks, laying hen flocks, breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc.

(d) Flocks or herds or as appropriate.

(e) Total number of flocks existing in the region including eligible flocks and non-eligible flocks for the programme.

(f) Check means to perform a flock level test under the programme for the presence of salmonella. In this column a flock must not be counted twice even if it has been checked more than once.

(g) If a flock has been checked, in accordance with footnote (d), more than once, a positive sample must be taken into account only once.

(h) Specify types of flocks if appropriate (breeders, layers, breeders).
<table>
<thead>
<tr>
<th>Date of Vaccination</th>
<th>Number of Animals Vaccinated</th>
<th>Number of Animals Vaccinated in Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1</td>
<td>10</td>
<td>100</td>
</tr>
<tr>
<td>2/2</td>
<td>15</td>
<td>200</td>
</tr>
</tbody>
</table>

7.2.1. Vaccination Plan

7.2.2. Coverage and Progress of Vaccination
**Detailed analysis of the cost of the programme (one table per year of implementation)**

<table>
<thead>
<tr>
<th>Costs related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Community funding requested (yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Testing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1. Cost of the analysis</td>
<td>Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling</td>
<td>890</td>
<td>21.1EUR</td>
<td>18809EUR</td>
<td>yes</td>
</tr>
<tr>
<td></td>
<td>Test: Number of serotyping of relevant isolates tests planned to be carried out</td>
<td>10</td>
<td>74.4EUR</td>
<td>744EUR</td>
<td>Yes</td>
</tr>
<tr>
<td>1.2. Cost of sampling</td>
<td>Sampling for bacteriological test</td>
<td>890</td>
<td>1.1EUR</td>
<td>889EUR</td>
<td>No</td>
</tr>
<tr>
<td>1.3. Other costs</td>
<td>Cost of means to blood sampling</td>
<td>890</td>
<td>1.6EUR</td>
<td>1389EUR</td>
<td>No</td>
</tr>
<tr>
<td>3.3 Destruction costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>3.4 Loss in case of slaughtering</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.5 Costs from treatment of animal products (milk, eggs, hatching eggs, etc.)</td>
<td>€0000</td>
<td>0,12EUR</td>
<td>€000EUR</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>4. Cleaning and disinfection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Salaries (staff contracted for the programme only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Consumables and specific equipment</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ANNEX – ESTONIA

Additional information

Salmonella control programme submission in laying hens of Gallus gallus application for co-financing in 2009:

4.4.4. Measures and applicable legislation as regards the measures in case of a positive result.

Regulation of the Minister of Agriculture No 46 from 29.03.2007 "Prevention against salmonellosis" lays down rules for Salmonella Monitoring Programme in Estonia and measures to ensure that proper and effective measures are taken to control Salmonella at all relevant stages of production. SMIPF started in 2002 and is approved annually by the Director General of Veterinary and Food Board. In addition to the monitoring programme samples are taken in the frames of official surveillance and by the industry in accordance with their self-control programmes.

According to the abovementioned Regulation in case of detecting Salmonella the supervision official should find out the infection sources and their spreading ways, remove or block them. It is prohibited to take birds to a flock doubted to be infected or actually infected or to take them out, except for slaughter. All poultry flocks (young birds, breeding flock, productive flock), where Salmonella spp. has been diagnosed should be sent immediately for slaughter or destroyed in accordance with Regulation No 1774/2002. After the flock infected by salmonellosis has been sent to the slaughterhouse, the carriage boxes, transport boxes and transport means shall be cleaned, washed and disinfected. The litter of flocks infected by salmonellosis shall be composted away from the livestock buildings. Enclosures and inventory of poultry farm shall be cleaned, washed and disinfected after the litter of birds has been taken out and tested then bacteriologically for Salmonella. The dead and slaughtered birds shall be made harmless or utilized. Poultry buildings should be checked on the efficiency of desinfection, disinfection and on protection against wild birds. Empty period is required for 21 day. Disposal of manure is restricted. Feeding stuffs should be destructed or heat-treated. Taking into account the particulars of each case, the Veterinary and Food Board has the right to allow the use of alternative methods like treatment with antibiotics instead slaughter of breeding flock. Table eggs from flocks infected or suspected of being infected by salmonella are allowed to be used for preparation of pasteurized egg products or shall be destroyed. Hatching eggs should be destroyed.

When salmonella is detected in samples taken at packaging centres, contaminated eggs can be used for the production of pasteurized products. Contaminated food or raw material will be withdrawn from the market or handling, when salmonella is detected in food or raw material for food already present on the market.

In addition to the requirements laid down in the Regulation of Minister of Agriculture No 46 the requirements laid down in the Commission Regulation No 1237/2007 of 23 October 2007 amending Regulation (EC) No 2160/2003 of the European Parliament and of the Council and Decision 2006/696/EC as regards the placing on the market of eggs from Salmonella infected flocks of laying hens are taken into account as specific control methods for the control of Salmonella in the frames of the national Salmonella control programme.