



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL
Unit 04 - Veterinary Control Programmes

SANCO/3828/2008

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

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2. Historical data on the epidemiological evolution of zoonotic salmonellosis specified in point 1¹:

Information on any routine 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.

¹ 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.



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The structure of laying hens of *Gallus gallus*:

In Estonia there are 25 large flocks with laying hens (1000 laying hens or more present) and 3462 small flocks (50-1000 laying hens). Sampling will be performed in all holdings with more than 50 hens.

Number of laying hens flocks by number of heads present

TOTAL	50-100	101-1000	>1000
3487	3342	120	25

Number of laying hens by number of heads present

TOTAL	50-100	101-1000	>1000
968245	113953	24414	829878

The results of the baseline study on the prevalence of salmonella in laying flocks of Gallus gallus carried out in Estonia in 01.10.2004-30.09.2005.

Positive results were found in 2 flocks out of 35 flocks reared in 11 holdings. *Salmonella enteritidis* was detected in dusty material and naturally mixed faeces samples in one holding in Lääne-Virumaa county. *Salmonella Isangi* was detected in dusty material in another holding situated in the same county. All other samples collected and investigated turned to be negative.

Salmonella serovars isolated: S. Isangi, S. Enteritidis.

Prevalence of *Salmonella* spp. in holdings: 16%.

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

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*

	TOTAL	350-499	500-999	1000-2999	3000-4999	5000-9999	10000-29999	>30000
ESTONIA	12	0	0	1	1	0	5	5
pos. S.								
Enteritidis	1	0	0	1	0	0	0	0
prevalence	8	0	0	100	0	0	0	0

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

Data about additional sampling carried out in the holdings under the study in the period from 01.10.04 to 30.09.2005 is available in the following table. Most of these samples were investigated in the frames of National Infectious Animal Disease Control Programme, some of them in the frames of self-control of the enterprise.

COUNTY	HOLDING NR.	TYPE OF SAMPLES	NUMBER OF SAMPLES	RESULTS
Harjumaa	1	cloacae swab samples	120	negative
Lääne-Virumaa	2	cloacae swab samples	660	negative
	3	eggs samples	14	negative
	3	cloacae swab samples	240	negative
	3	eggs samples	8	negative
	4	cloacae swab samples	230	negative
Põlvamaa	5	faeces samples	180	negative
Raplamaa	5	eggs samples	9	negative
Saaremaa	6	eggs samples	5	negative
Iärtumaa	7	faeces samples	370	negative
	8	cloacae swab samples	60	negative
	9	cloacae swab samples	60	negative
Valgamaa	10	cloacae swab samples	120	negative
	11	cloacae swab samples	240	negative
Viljandimaa	12	faeces samples	3	negative
TOTAL		eggs samples	5	negative
			2328	negative

In 2006 25 flocks of laying hens were analysed. Flock was found to be positive for *Salmonella enteritidis*.

3. Description of the submitted programme²:

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 (Väike-Paala 3, Tallinn 11415, phone +372 603 58 10, fax +372 603 58). For future serotyping and phagotyping, a proportion of the typable strains and non-typable 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. Interpretive 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.

² 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.

Number of birds in the flock	Number of samples
50-59	35
60-89	40
90-199	50
200-249	55
250-349	200
350-449	220
450-799	250
800-999	260
1000 and more	300

The individual faeces samples of the birds under examination shall be integrated into a pooled sample.

Based on the age and intended purpose of the birds flock, the samples shall be sent to the laboratory for bacteriological study as follows:

- 1) pullets at four week of age - pooled faeces samples
 - 2) pullets two week prior to entering the laying flocks - pooled faeces samples
 - 3) young birds at the age of 24± 2 weeks - faeces samples or boot swabs samples and dust samples from each flock in amount prescribed by Table 1
 - 4) 8 weeks before slaughter faeces samples boot swabs samples and dust samples from each flock in amount prescribed by Table 1.
- Sampling at the initiative of the operator shall take place at least every fifteen weeks. The first sampling shall take place at the age of 24 ± 2 weeks.

Official controls at other stages of the food chain:

Surveillance of salmonella in feed, animals and food is carried out for many years in Estonia. In addition to surveillance systems, monitoring programme is conducted, which provides additional epidemiological information:

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 neck 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. Feedingstuffs 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

for heat treatment. Table eggs from flocks infected or suspected of being infected by salmonella are allowed to be used for preparation of pasteurised egg products or to be destroyed. When salmonella is detected in food already present on the market, contaminated food or raw material should be withdrawn from the market or handling.

This process is performed by fully state operated veterinary service. Activities are co-ordinated by the Veterinary and Food Board (VFB). VFB is having the central competence on veterinary and food control matters. Official veterinarians of local veterinary centres collect samples. Abovementioned officials are also responsible for filling in accompanying documents and sampling reports, informing the laboratory about arrival of samples, packaging and sending the samples to the laboratory. Samples are sent to the Estonian Veterinary and Food Laboratory (VFI.) by fast mail or courier.

Relevant national legislation, including any national provisions concerning the activities referred to in Article 1 (3)(b):

Supervision of animal health is based on the Veterinary Organisation Act that establishes the basis for the organisation of veterinary controls, authorisation of private veterinary practitioners, authorised veterinarians, laboratories and the principles of veterinary control fees.

The Infectious Animal Disease Control Act (R.T. 1999) provides the necessary legal framework for disease diagnosis and eradication, including notification of suspects, measures to be taken in case of suspicion or confirmation, protection, eradication, establishment of surveillance networks and compensation, monitoring of zoonoses.

Salmonellosis is notifiable according to the Minister of Agriculture Regulation No. 34 of 25 November 1999 "List of Notifiable Diseases and Diseases subject to Registration".

The Minister of Agriculture Regulation No 46, 29.03.2007 approves the requirements for prevention of salmonellosis.

Routine veterinary supervision of farms:

The official veterinary officer inspects holdings regularly to check compliance with the programme.

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. Animal keeper is required to keep record of medical products and medicated feedingstuffs administered to the farm animals. 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:

Estonia is linked to veterinary authorities of the EC and other Member States through TRACES. TRACES is in use in Estonia since 1st of May 2004.

Estonia is also linked to ADNS since March 2002.

4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the programme:

First year:2007

Last year:2010

Control

Control/Eradication

- Testing
- Slaughter of animals tested positive
- Killing of animals tested positive
- Vaccination
- Treatment of animal products
- Disposal of products
- Monitoring or surveillance
- Other measures (specify):

4.2. Designation of the central authority in charge of supervising and coordinating the departments responsible for implementing the programme³

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 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 fulfilment 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.

³) 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 broader objective of VFB is to ensure the consumers the production of safe, healthy and quality raw materials for food and food, to prevent and eradicate infectious animal diseases, to protect people from diseases common to both people and animals and diseases that are spread by animals, but at the same time to protect animals from human activity or inactivity endangering their health and welfare, to ensure productivity of farm animals and increase their genetic value, and to preserve genetic pool and profitability of keeping animals.

The tasks of the Veterinary and Food Board are to:

- plan and organise the prevention and control of infectious animal diseases;
 - protect humans from diseases common to both people and animals;
 - protect animals from factors endangering their welfare and demand that the animals are kept and treated as appropriate;
 - grant approval to enterprises involved in handling foodstuffs and persons, who determine the quality classes of carcasses;
 - check the safety of raw material for food and food when raw material for food and food are produced during the whole food chain;
 - execute supervision over organic processing of raw material for food and food;
 - organise laboratory analysis in order to diagnose infectious animal diseases and assess the properties of food, feedingstuffs, hay, straw, medicated feedingstuffs and drinking water;
 - protect the environment from harmful factors that are the result of keeping animals or infectious animal diseases;
 - issue activity licences for the provision of veterinary services;
 - control the use of medicinal products and medicated feedingstuffs by veterinarians and animal-keepers manufacturing animal products;
 - check animals, raw material for food and food, including checks of products of animal origin and agricultural products carrying markings that refer to organic farming, upon their importation to the Republic of Estonia;
 - arrange the grant of approval to persons involved in animal breeding;
 - execute supervision over animal breeding;
 - organise preservation of genetic resources of farm animals;
 - organise control procedures necessary for the implementation market regulation measures on milk and meat market.
- In performing its tasks, VFB uses the services of the Veterinary and Food Laboratory, laboratories authorised in accordance with the Veterinary Activities Organisation Act, laboratories that hold an activity licence for a veterinary laboratory and laboratories authorised in accordance with the Food Act.

The organisation of the Veterinary and Food Board consists of the Central Office and 15 local offices – Veterinary Centres in the counties. When the main objective of the Central Office is to coordinate supervision, the local offices carry out supervision.

The Central Office of the Veterinary and Food Board consists of five departments:

- the Animal Health and Welfare Department consists of the Animal Health Office and the Animal Welfare Office.

- 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, Muuga Port and Diriham.
- 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 organises 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 feedstuffs 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 organises 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.

- 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.

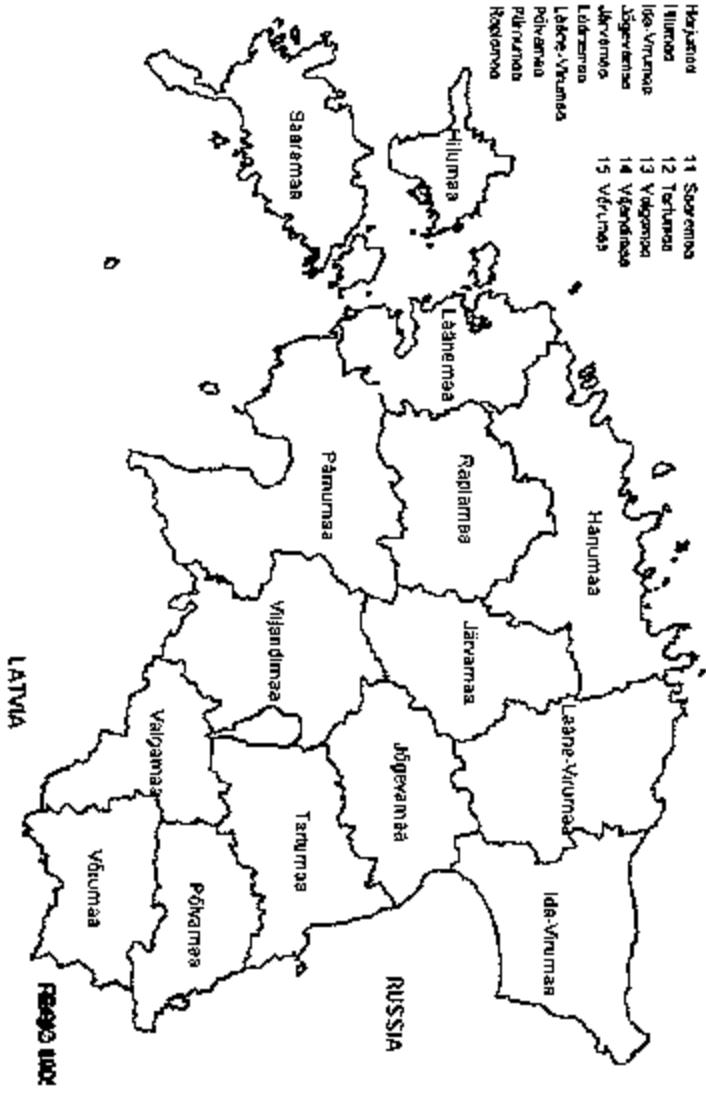
4.3. Description and delimitation of the geographical and administrative areas in which the programme is to be implemented⁴.

Salmonella programme in laying hens of *Gallus gallus* is active in all 15 counties

COUNTY

01	Harjumaa	11	Soovereinna
02	Iiumaa	12	Tartumaa
03	Iige-Virumaa	13	Valgamaa
04	Jägemaanmaa	14	Võrumaa
05	Järva maa	15	Võru maa

06	Lidzemea	07	Lehete-Virumaa
08	Põlvamaa	09	Pärnumaa
10	Raplamaa		



⁴ Describe the name and denomination, the administrative boundaries, and the surface of the administrative and geographical areas in which the programme is to be applied. Illustrate with maps.

4.4. Measures implemented under the programme⁵

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



"No 88, Registration
of building in Estonia

4.4.2. Measures and applicable legislation as regards the identification of animals⁶:



No 77_ Identification.d
oc

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



"No 34, Notification of
the disease in Estonia

4.4.4. Measures and applicable legislation as regards the measures in case of a positive result⁷:



"No 46 Regulation
salmonellosis in Estonia

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

⁵ Where appropriate Community legislation is mentioned. Otherwise the national legislation is mentioned.

⁶ Not applicable for poultry.

⁷ 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).

Regulation on requirements for control of *Salmonella* is approved by the degree of the Minister of Agriculture No 46, 29.03.2007.

(see above)

4.4.6. Control procedures and in particular rules on the movement of animals liable to be affected or contaminated by a given disease and the regular inspection of the holdings or areas concerned⁶.

Regulation on requirements for control of *Salmonella* is approved by the degree of the Minister of Agriculture No 46, 29.03.2007.

(see above)

4.4.7. Measures and applicable legislation as regards the control (testing, vaccination, ...) of the disease:

Regulation on requirements for control of *Salmonella* is approved by the degree of the Minister of Agriculture No 46, 29.03.2007.

(see above)

4.4.8. Measures and applicable legislation as regards the compensation for owners of slaughtered and killed animals:

Regulation on requirements for control of *Salmonella* is approved by the degree of the Minister of Agriculture No 46, 29.03.2007.

(see above)

4.4.9. Information and assessment on bio-security measures management and infrastructure in place in the flocks/holdings involved:

Regulation on requirements for control of *Salmonella* is approved by the degree of the Minister of Agriculture No 46, 29.03.2007.

(see above)

⁶ 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 regular inspection of the holdings or areas is provided.

5. General description of the costs and benefits⁹:

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

6. Data on the epidemiological evolution during the last five years¹⁰

6.1. Evolution of zoonotic salmonellosis

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.

6.1.2.

Data on evolution of zoonotic salmonellosis

Year: 2007

Situation on date: 01.01-31.12.2007

Animal species: laying hens of *Gallus gallus* Disease/infection^(a): Salmonella

Region (a1)	Type of flock ^(b)	Total number of flocks ^(c)	Total number of animals	Total number of flocks under the programme	Number of flocks checked ^(d)	Number of positive ^(e) flocks ^(f)			Number of flocks depopulated ^(g)	Total number of animals slaughtered or destroyed ^(h)	Quantity of eggs destroyed (number or kg) ⁽ⁱ⁾	Quantity of eggs channelled to egg products (number or kg) ^(j)
						(a1)	(a2)	(a3)				
Estonia	laying hens of <i>Gallus gallus</i>	61	954500	61	954500	61	0	0	1	500	0	0
Total		61	954500	61	954500	61	0	0	1	500	0	0

Year: 2006

Situation on date: 01.01-31.12.2006

Region	Type of flock ^(b)	Total number of flocks ^(c)	Total number of animals	Number of flocks checked ^(d)	Disease/infection ^(a) : Salmonella			Number of positive ^(e) flocks ^(f)	Number of flocks depopulated ^(g)	Total number of animals slaughtered or destroyed ^(h)	Quantity of eggs destroyed (number or kg) ⁽ⁱ⁾	Quantity of eggs channelled to egg products (number or kg) ^(j)	
					(a1)	(a2)	(a3)						
	laying hens of <i>Gallus gallus</i>	25	829878	25	829878	25	1	0	0	5000	0	0	0
Total		25	829878	25	829878	25	1	0	0	5000	0	0	0

6.1.2

Data on evolution of the disease¹¹

Year: 2005 **Situation on date:01.01-31.12.2005**

Animal species: laying hens of <i>Gallus gallus</i>		Disease/infection ^(a) : <i>Salmonella</i>					
Region	Type flock ^(b)	Total number of flocks ^(c)	Total number of animals	Total number of flocks under the programme	Number of positive ^(d) flocks ^(e)	Number of flocks depopulated ^(f)	Total number of animals slaughtered or destroyed ^(g)
Total	laying hens of <i>Gallus gallus</i>	30	9638245	30	880230	30	10280
					2	0	0

Year: 2004 **Situation on date:01.01-31.12.2004**

Animal species: laying hens of <i>Gallus gallus</i>		Disease/infection ^(a) : <i>Salmonella</i>					
Region	Type flock ^(b)	Total number of flocks ^(c)	Total number of animals	Total number of flocks under the programme	Number of positive ^(d) flocks ^(e)	Number of flocks depopulated ^(f)	Total number of animals slaughtered or destroyed ^(g)
Total	laying hens of <i>Gallus gallus</i>	29	908358	29	708358	29	0
					0	0	0

¹¹ Data to provide for salmonellosis (zoootic salmonella), *Salmonella pullorum*, *Salmonella gallinarum*, *Mycoplasma gallisepticum*, *Campylobacteriosis* and agents thereof.

Year: 2003

Situation on date:01.01.31.12.2003

Region	Animal species: Type of flock ^(b)	Disease/infection ^(c) :Salmonella											
		Total number of flocks ^(d)	Total number of animals	Total number of flocks under the programme	Number of flocks checked ^(e)	Number of positive flocks ^(f)	Total number of animals slaughtered or destroyed ^(g)	Quantity of eggs destroyed (number or kg)	Quantity of eggs channelled to egg products (number or kg)	(a1)	(a2)	(a3)	(a4)
Total	Laying hens of <i>Gallus gallus</i>	30	903254	30	710013	30	0	0	0	(a1)	(a2)	(a3)	(a4)
	<i>Gallus gallus</i>						0	0	0	(a1)	(a2)	(a3)	(a4)

- (a) For zoonotic Salmonellosis indicate the serotypes covered by the control programmes: (a1) for *Salmonella Enteritidis*, (a2) for *Salmonella Typhimurium*, (a3) for other serotypes/species as appropriate, (a4) for *Salmonella Enteritidis* or *Salmonella Typhimurium*.
- (a1) Region as defined in the approved control and eradication programme of the Member State.
- (b) For example, breeding flocks (rearing, adult flocks), production flocks, laying hen flocks, breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc. Flocks or herds or as appropriate.
- (c) Total number of flocks existing in the region including eligible flocks and non-eligible flocks for the programme.
- (d) 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.
- (e) If a flock has been checked, in accordance with footnote (d), more than once, a positive sample must be taken into account only once.

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)

<u>Year:</u> 2007	<u>Animal species^(a):</u> laying hens	<u>Category^(b):</u> laying hens of <i>Gallus gallus</i>
<u>Description of the used serological tests:</u>		

Description of the used microbiological or virological tests: The method recommended by the Community Reference Laboratory for Salmonella in Bilthoven, 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 Kaufmann-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.

Phagotyping:

At least one isolate of *S. Enteritidis* and *S. Typhimurium* from each positive holding should be phagotyped, using the protocol defined by IHPA Colindale, London.

Region ^(c)	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)
Estonia	0	0	732	1	0	0
Total	0	0	732	1	0	0

Year:2006 Disease^(a): salmonella Animal species/category^(b): laying hens of *Gallus gallus*

Region ^(c)	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)
Estonia	0	0	939	1	0	0	0	0	0
Total	0	0	939	1	0	0	0	0	0

Year:2005 Disease^(a): salmonella Animal species/category^(b): laying hens of *Gallus gallus*

Region ^(c)	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)
Estonia	0	0	1611	2	0	0	0	0	0
Estonia	0	0	1611	2	0	0	0	0	0

Year:2004 Disease^(a): salmonella Animal species/category^(b): laying hens of *Gallus gallus*

Region ^(c)	Serological tests			Microbiological or virological tests			Other tests		
	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)
Estonia	0	0	1102	0	0	0	0	0	0
Estonia	0	0	1102	0	0	0	0	0	0

Estonia	0	0	0	0	0	0	0
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Year:2003 Disease^(a): **salmonella** Animal species/category^(b): laying hens of *Gallus gallus*

Region ^(c)	Serological tests			Microbiological or virological tests		Other tests	
	Number of samples tested ^(d)	Number of samples	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)	Number of samples tested ^(d)	Number of positive samples ^(e)
Estonia	0	0	0	1123	0	0	0
Estonia	0	0	0	1123	0	0	0

- (a) Animal species if necessary.
- (b) Category/further specifications such as breeders, laying hens, broilers, breeding turkeys, broiler 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.
- (e) Number of positive samples.

6.3. Data on infection (one table per year and per species)

Year:2007	Animal species ^(a) : laying hens of <i>Gallus gallus</i>	Number of herds infected ^(c)	Number of animals infected
Region ^(b)			
Estonia		1	500
Total		1	500

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

6.4. Data on vaccination programmes¹²

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

Region ^(b)	Total number of herds ^(c)	Total number of animals	Information on vaccination programme		
			Number of herds ^(c) in vaccination programme	Number of herds ^(c) vaccinated	Number of doses of vaccine administered
Total	0	0	0	0	0

- (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.

¹² 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

Animal species: ^(a) : laying hens of <i>Gallus gallus</i>					
Region ^(b)	Type of the test ^(c)	Target population ^(d)	Type of sample ^(e)	Objective ^(f)	Number of planned tests
Istria	bacteriological	laying hens	faeces samples or boot swabs, dust samples	surveillance	
			Total		800

- (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).

7.1.2. Targets on testing of flocks¹³

Situation on date: 01.01-31.12.2009

Region (a1)	Type of flock ^(b)	Total number of flocks ^(c)	Total number of animals under the programme	Expected number of flocks to be checked ^(d)	Number of flocks ^(e) expected to be positive ^(e)	Number of flocks to be depopulated ^(f)	Total number of animals expected to be slaughtered or destroyed ^(g)	Expected quantity of eggs channelled to egg products (number or kg) (h)		
								(a1)	(a2)	(a3)
Estonia	Laying hens	61	1153806	61	1153806	61	0	0	0	0
Total	Laying hens	61	1153806	61	1153806	61	0	0	0	0

(a) For zoonotic salmonellosis indicate the serotypes covered by the control programmes: (a1) for *Salmonella Enteritidis*, (a2) for *Salmonella Typhimurium*, (a3) for other serotypes-specific as appropriate, (a4) for *Salmonella Enteritidis* or *Salmonella Typhimurium*.
 Region as defined in the approved control and eradication programme of the Member State.

(b) For example, breeding flocks (rearing, adult flocks), production flocks, laying hen flocks, breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc.
 Flocks or herds or as appropriate.

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

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

13 Specified types of flocks if appropriate(breeders, layers, broilers).

7.2. Targets on vaccination (one table for each year of implementation)

7.2.1. Targets on vaccination¹⁴

Animal species: (b) laying hens of *Gallus gallus*

Region ^(b)	Targets on vaccination programme	
	Total number of herds ^(c) in vaccination programme	Total number of animals in vaccination programme
Estimated	0	0
Total	0	0

- (a) 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.

¹⁴ Data to provide only if appropriate.

8. Detailed analysis of the cost of the programme (one table per year of implementation)

<i>Costs related to</i>	<i>Specification</i>	<i>Number of units</i>	<i>Unitary cost in EUR</i>	<i>Total amount in EUR</i>	<i>Community funding requested (yes/no)</i>
<i>1. Testing</i>					
<i>1.1. Cost of the analysis</i>	<i>Test: Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling</i>	<i>800</i>	<i>21,4EUR</i>	<i>1688EUR</i>	<i>Yes</i>
	<i>Test: Number of serotyping of relevant isolates tests planned to be carried out</i>	<i>10</i>	<i>74,4EUR</i>	<i>744EUR</i>	<i>Yes</i>
<i>1.2. Cost of sampling</i>	<i>Sampling for bacteriological test</i>	<i>800</i>	<i>1,1EUR</i>	<i>880EUR</i>	<i>No</i>
	<i>Cost of means to blood sampling</i>	<i>800</i>	<i>1,6EUR</i>	<i>1280EUR</i>	<i>No</i>
<i>1.3. Other costs</i>					

2. Vaccination or treatment of animal products			
<i>2.1. Purchase of vaccine/treatment of animal products</i>	Number of purchase of vaccine doses planned if a vaccination policy is part of the programme as set out explicitly under point 4 of Annex II		
<i>2.2. Distribution costs</i>			
<i>2.3. Administering costs</i>			
<i>2.4. Control costs</i>			
3. Slaughter and destruction			
<i>3.1. Compensation of animals</i>	5000	1,9 EUR	9500EUR
<i>3.2. Transport costs</i>			Yes

3.1. Destruction costs			
3.4. Loss in case of slaughtering			
3.5 Costs from treatment of animal products (milk, eggs, hatching eggs, etc.)	40000	0,1EUR	4800EUR
4. Cleaning and disinfection			Yes
5. Salaries (staff contracted for the programme only)			
6. Consumables and specific equipment			

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. SMPF 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 utilised. Poultry buildings should be checked on the efficiency of deratination, 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.

