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

Survey Programme for Salmonella

Approved* for 2012 by Commission Decision 2011/807/EU

Denmark

* in accordance with Council Decision 2009/470/EC
ANNEX II - PART A

General requirements for the national salmonella control programmes

Member state: DANMARK

(a) State the aim of the program

(max. 32000 chars):

The main objectives of the control programme are:
a) To further reduce the incidence of infected table egg layer flocks
b) To further reduce the prevalence of infected broiler flocks/batches of birds
c) To further reduce the occurrence of human salmonellosis related to Danish-produced poultry products

(b) Animal population and phases of production which sampling cover

Demonstrate the evidence that it complies with the minimum sampling requirements laid down in part B of Annex II to Regulation (EC) No 2160/2003 of the European Parliament and of the Council OJ L 325, 12.12.2003, p. 1. indicating the relevant animal population and phases of production which sampling must cover

It is mandatory to fill in the box about Animal populations to make the rest of the questions visible.

Animal population  Breeding flocks of Gallus gallus

rearing flocks  day-old chicks
                four-week-old birds
                two weeks before moving to laying phase or laying unit

adult breeding flocks  every second week during the laying period

(c) Demonstrate the evidence...
demonstrate the evidence that it complies with the specific requirements laid down in Parts C, D and E of Annex II to Regulation (EC) No 2160/2003

The Danish programme complies with the specific requirements laid down in Parts C, D and E of Annex 2 to 2160/2003.
The National Salmonella Control Programme encompasses all serovars of salmonella (except for the host-specific Salmonella Pullorum and Salmonella Gallinarum, which cause fowl typhoid).
The sample-taking programme combines bacteriological (faecal droppings, swaps, socks, crate liners, hatcher basket liners, broken egg shells, dust, hatching dust, hens) and serological (egg) samples in order to optimize the chance of detecting infected flocks as soon as possible.
The routine sampling scheme is summarised in Table 2A (grandparent flocks) and Table 2B (parent flocks). Table 3 shows the routine sampling scheme for egg layers. All sample-taking programmes are designed to provide maximum coverage in detecting potential salmonella infection. The sampling programmes have been regularly revised, and the latest programmes have been effective from 1 January 2010.
The results are summarized in Annex 4-6.

(d) Specification of following points:

(d)1. General

(d)1.1 A short summary referring to the occurrence


The first Danish programme for controlling salmonella in the production of broilers and table eggs was approved by the European Commission as an implementation of the Council Directive 92/117/EEC and took effect on 1 January 1994.
An increasing number of human salmonellosis cases related to the consumption of eggs and chicken meat prompted in 1996 the Ministry of Agriculture and Fisheries to implement an extended surveillance and control programme for the prevention of salmonella in the table egg and broiler productions.
Initially, the budget of the National Salmonella Control Programme was 188.1 mill. DKK (~25 mill. €) over a 3-year period. In 1999, 62.9 mill DKK was not spent and the Danish Parliament adopted an extension of the programme by three more years (2000-2002).
From 1 January 2003 onwards the Danish Poultry Council has assumed responsibility for the daily administrative and financial aspects of the National Salmonella Control Programme under continuous
**Standard requirement for the submission of programme for eradication, control and monitoring**

_version : 2.1_

Monitoring and control by the Danish Veterinary and Food Administration.

Denmark has consistently informed the European Commission on the progress of the programme (intermediate and annual reports). Furthermore, historical data concerning this programme are available from the “Annual Report on Zoonoses in Denmark” which has been published by the Danish Ministry of Food, Agriculture and Fisheries (In a period from 2004-2007 the Ministry of Family and Consumer Affairs) throughout the duration of the programme. In 2004, the report “The National Salmonella Control Programme for the Production of Table Eggs and Broilers, 1996-2002” was published.

The search for historical data in the Salmonella Database is somewhat uncertain as some holdings/houses may have converted from one type of production to another over time and therefore may be included in different production type categories than the ones in which they were registered at the time of examination. The database is structured so that if the production type of a house changes, all previously entered data concerning the production type in the house concerned will also be modified. Therefore, use of the database for historical reasons is not appropriate. The numbers of examined and infected flocks have been continuously reviewed, however, for use at steering committee meetings and for various publications.

In September 2007, Denmark has applied to The European Commission for special guaranties for Salmonella in poultry meat (Gallus gallus) and table eggs.

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**(d)1.2 A short summary referring to the occurrence of the salmonella**

The structure and organization of the relevant competent authorities. Please refer to the information flow between bodies involved in the implementation of the programme.

(max. 32000 chars):

The public administration is divided into one central and 2 regional sections. The central section is located in the headquarter of the Danish Veterinary and Food Administration, situated in Mørkhøj outside Copenhagen, where the Division for Microbiological Food Safety, Hygiene and Zoonoses Control is responsible for activities relating to the National Salmonella Control Programme. The Division for Microbiological Food Safety, Hygiene and Zoonoses Control is supervising and having the overall control with the programme. The central section controls among other things the regional follow-up on suspected and infected flocks.

The 2 regional sections are each divided into Regional Veterinary and Food Control Authorities (RVFCA) and are responsible for the practical accomplishment of the National Salmonella Control Programme, i.e. the administration of investigating positive salmonella results has been delegated to the RVFCA. The activities of RVFCA comprise collection of some routine samples and all samples from suspected flocks, placing infected herds under public supervision, information to farmers about restrictions and precautions etc., as well as approval of cleaning and disinfection after removal of infected flocks.

The National Veterinary Institute (Formerly The Danish Institute of Food and Veterinary Research (DFVR)) is national reference laboratory (NRL) performing serological and some of the bacteriological analyses. Furthermore, private laboratories have been approved to perform certain bacteriological routine analyses. The NRL with intervals organizes collaborative testing of the approved laboratories. The NRL evaluates the laboratories on basis on results in testing of samples delivered by the NRL.
The participating laboratories are by routine tested for the MSRV-method. Laboratories, which apply other methods of analysis in official controls, must participate in collaborative testing in these methods as well.

The Danish Poultry Council is the industrial organization for producers, egg packing stations, hatcheries and slaughterhouses and is represented in task groups. The industry has the financial responsibility for the National Salmonella Control Programme. The Danish Poultry Council is responsible for the daily administration of the programme. The Danish Poultry Council is responsible for continuously updating the registration of all poultry producers (including farm-gate sellers) and for informing and guiding the producers, so they are fully capable of complying with the National Salmonella Control Programme and for investigating any irregularities. The Danish Veterinary and Food Administration plans to continuously monitor the Danish Poultry Council’s administration and continuation of the National Salmonella Control Programme.

The Danish Poultry Council is responsible for registering new cases of suspected infection in the Salmonella Database. Laboratory results are sent direct to the producer, to the Regional Veterinary and Food Control Authorities (RVFCA) and to the Danish Poultry Council. A regional categorisation of search options within the database enables each RVFCA to follow the progression of a suspected infection in its own area. One element on which the future supervision of the National Salmonella Control Programme will be based is the internal control exercised by each enterprise. Egg packing stations are under an obligation to discard the eggs of any producers who have not taken scheduled samples as planned or who are placed under suspicion.

### (d)1.3 A short summary referring to the occurrence of the salmonella

Approved laboratories where samples collected within the programme are analysed.

(max. 32000 chars):

<table>
<thead>
<tr>
<th>Approved laboratories</th>
</tr>
</thead>
<tbody>
<tr>
<td>The National Veterinary Institute is national reference laboratory (NRL) performing serological and some of the bacteriological analyses.</td>
</tr>
<tr>
<td>ALcontrol, ALcontrol AB, Olaus Magnus väg 27, 583 30 Linköping, Sweden: bacteriological analyses.</td>
</tr>
<tr>
<td>Eurofins Steins Laboratorium A/S, Hjaltvesej 8, DK-7500 Holstebro, Denmark: bacteriological analyses.</td>
</tr>
<tr>
<td>Three laboratories at the Regional Veterinary and Food Control Authorities: bacteriological analyses.</td>
</tr>
</tbody>
</table>

### (d)1.4 Methods in examination
Standard requirement for the submission of programme for eradication, control and monitoring
version : 2.1

Methods used in the examination of the samples in the framework of the programme.

(max. 32000 chars) :

Description of the used microbiological or virological tests: Two bacteriological tests are used: ISO 6579 Annex D for samples specified in the Zoonosis Directive (pooled faecal samples, crate litter, meconium, chickens).

EiaFoss® for analyzing wet hatching dust. The analysis is a quick method, which consist of an enrichment step followed by an automated ELISA-analysis.

(d)1.5 A short summary referring to the occurrence of the salmonellosis

Official controls (including sampling schemes) at feed, flock and/or herd level.

(max. 32000 chars) :

The National Salmonella Control Programme encompasses all serovars of salmonella (except for the host-specific Salmonella Pullorum and Salmonella Gallinarum, which cause fowl typhoid). The sample-taking programme combines bacteriological (faecal droppings, swaps, socks, crate liners, hatcher basket liners, broken egg shells, dust, hatching dust, hens) and serological (egg) samples in order to optimize the chance of detecting infected flocks as soon as possible.

The routine sampling scheme is summarised in Table 2A (grandparent flocks) and Table 2B (parent flocks). Table 3 shows the routine sampling scheme for egg layers. All sample-taking programmes are designed to provide maximum coverage in detecting potential salmonella infection. The sampling programmes have been revised, and have been effective from 1 January 2010.

The results for 2010 are summarized in Annex 4-6.

(d)1.6 Measures

Measures taken by the competent authorities with regard to animals or products in which the presence of Salmonella spp. have been detected, in particular to protect public health, and any preventive measures taken, such as vaccination.

(max. 32000 chars) :

A positive routine sample found at the hatchery causes that a district veterinary officer from the Regional Veterinary and Food Control Authorities (RVFCA) samples the flock, i.e. “suspicion sampling”. If the suspicion is confirmed, the flock is declared infected with salmonella. Official veterinary supervision is
imposed on all holdings with infected flocks. As soon as the flock is suspected, the official veterinary samples the flock as soon as possible. If the suspicion is not confirmed, a new round of samples are taken not earlier than 2 weeks later. A flock can therefore be found infected as soon as the laboratory has analyzed the samples. In the meantime, the flock is placed under restrictions at least in accordance with Regulation 2160/2003, annex II (D).

A positive result from an own-check sample is treated in the exact same way; e.g. if an own-check sample shows Salmonella Enteritidis, S. Typhimurium, S. Virchow, S. Infantis or S. Hadar, the herd is considered infected. The own-check samples are taken by the operator. Sampling methods are described thoroughly in the regulation and the GMP. Also, the official veterinarians supervise the operators.

Holdings with breeding flocks of poultry infected with either Salmonella Enteritidis, S. Typhimurium, S. Virchow, S. Infantis or S. Hadar, will be placed under public veterinary supervision according to Order no. 1463. Hereafter, they will immediately be either slaughtered or destroyed in compliance with the Zoonoses Directive. In addition, hatching eggs are destroyed or heat-treated.

For other serovars of salmonella in breeding flocks and for all salmonella serovars in production animals, holdings with infected flocks will be subject to public veterinary supervision according to Order no. 1260 and Order no. 1463. The restrictions encompass destruction or heat-treatment of eggs from the date of suspected infection at an authorised egg product plant, isolation of infected flocks, extra hygienic measures e.g. special precautionary measures for coming and going between infected and uninfected flocks, special conditions for removal of animals and eggs as well as for handling of feeding stuffs and manure etc.

Intensified sample taking can be implemented in other table egg layer flocks at the same holding if infected flocks have been found. As a result, samples are taken under public supervision every 4 weeks instead of every 9 weeks from all uninfected flocks of a holding.

In herds with broiler flocks, a requirement for the heat treatment of all poultry meat of hens and chickens testing positive for salmonella prior to slaughter has been introduced in 2008. In addition, the control programme requires thorough cleaning and disinfection following detection of salmonella in a broiler flock. In the following flock the owner must take one extra pair of sock samples in order to locate the source of any possible infection. In addition, the down-time after the slaughter of the following flock shall be extended to at least 12 days in order to ensure sufficient cleaning and disinfection of the poultry house.

A district veterinary officer from the Regional Veterinary and Food Control Authority must approve cleaning and disinfection on the basis of a visual and bacteriological assessment before it is legal to place new stock in an infected poultry house.

We can confirm that the frame of the Salmonella control programme in breeding flocks of Gallus gallus the provisions of paragraph 1 and 2 (frequency of sampling) 4 (results and reporting) of Annex of Commission Regulation (EC) No 213/2009 are implemented
National legislation relevant to the implementation of the programmes, including any national provisions concerning the activities set out in the programme.

Order no. 1260 of 18 December 2008 on the Control of Salmonella in Table Egg Flocks and Pullets Reared for them.
- Order no. 27 of 22 January 2009 to amend Order no. 1260 of 18 December 2008
- Order no. 1463 of 16 December 2009 on the Control of Salmonella in Hatching Egg Layer Hens and Pullets Reared for them
- Order no. 1462 of 16 December 2009 on salmonellosis in poultry and Salmonella and Campylobacter in slaughter poultry
- Order no. 1450 of 23 December 2009 on poultry production and turnover of poultry
- Order no. 239 of 12 April 1991 on Expenses and Compensation by Combating and Preventing Animal Diseases.
- Order no. 812 of 29 October 1999 to amend Order no. 239 of 12 April 1991
- Order no. 59 of 18 January 2010 on Registration of Holdings in the Central Husbandry Register

(d)1.8 Financial assistance

Any financial assistance provided to food and feed businesses in the context of the programme.

From 1 January 2001, the poultry industry has been covering all expenses for routine analyses. From 1 February 2003 expenses in connection with routine and suspicion samples have been covered by the poultry industry.

No national funding exists except for compensation for slaughter or destruction of breeding flocks infected with either Salmonella Enteritidis, S. Typhimurium, S. Virchow, S. Infantis or S. Hadar, and ordered destruction or heat-treatment of hatching eggs in compliance with the Zoonosis Directive. According to Order no. 239 and 812, there will be a compensation for the value of the animals and the destruction costs as well as a 20% compensation for the owners operating loss. Furthermore, compensation is also given for the value of killed "suspicion hens".

(d)2. Food and business covered by the programme
Concerning food and feed businesses covered by the programme

(d)2.1 Structure of the production

The structure of the production of the given species and products thereof.

(max. 32000 chars) :

The National Salmonella Control Programme includes every type of flock of the domestic fowl, Gallus gallus, in the broiler and table-eggs sectors. The only exception is hobby flocks, i.e. small flocks with less than 100 animals, which are not allowed to sell eggs to consumers but can participate in the programme on a voluntary basis. The number of holdings, flocks and animals in the broiler and table egg sectors as per 31 December 2010 are shown in Table 1.

(d)2.2 Structure of the production of feed

The structure of the production of feed.

(max. 32000 chars) :

Danish feed business operators producing poultry feed have implemented a Code of practice for poultry feed processing based on HACCP principles. The feed business operators must implement a Bio security Monitoring Programme, which among other things includes heat-treatment at 81°C, sampling plans, cleaning procedures and corrective actions in case of high counts of coli bacteria or detection of Salmonella. Operators following the Code of practice are inspected 4 times a year by a third party, who reports to a survey group. The survey group decides on quarterly meetings which companies that are given a certificate of approval for the following quarter. The decision is made on the basis of the status of the company, the recommendations from the third party stated in a technical report along with the discussion in the survey group.

(d)2.3 Relevant guidelines
Relevant guidelines for good animal husbandry practices or other guidelines (mandatory or voluntary) on biosecurity measures defining at least

(d)2.3.1 Hygiene management at farms

Order no. 1450 of 23 December 2009 on poultry production deals with establishment and production in holdings with rearing for egg production and in hatcheries and any holding delivering to hatcheries. Houses must be brick-built or equivalent. Floors must be water impenetrable and with drain. There must be an entrance room, with a clean section and an unclean section separated by a grating. When a premise is empty between flocks, room and equipment must be cleaned and disinfected before a new flock is introduced.

Holdings with rearing for egg production: It is specified, that the buildings including outdoor areas must be epidemiologically separated from the surroundings.

Hatcheries and holdings delivering to hatcheries: Gallus gallus must be kept indoor. Boots should be changed in the entrance room. All rooms and equipment must be kept clean and well maintained. Outdoor areas must be kept clean and vegetation should be removed in case it obstructs pest control. The rooms must be secured as well as it is possible against pest. The staff must not have contact to other poultry. In case staff members have any contact to other livestock, clothes must be changed completely.

Legislation does not impose specific biosecurity measures in table-egg producing holdings. However, the regional Veterinary and Food Control Authorities have the right to demand an extended sampling programme in holdings where the risk of infection is considered to be increased.

(d)2.3.2 Relevant guidelines

Poultry hatcheries and breeders must have an approval from the authorities before they start production. Such an approval is based on a.o. an evaluation of the hygiene standard of the buildings and
the surroundings, and protection against introduction of infectious diseases. There are also provisions for the daily operation of the production such as cleaning and disinfection of buildings and surroundings before new chicks are put into the houses as well as requirements for transport of chicks and measures taken in case of suspicion of illness among the animals. These provisions are laid down in Order No. 1450 of 23 December 2009, which implements annex II of Council Directive 90/539/EEC of 15 October 1990 on animal health conditions governing intra-Community trade in, and imports from third countries of, poultry and hatching eggs in Danish legislation. The general requirements for hygiene measures in the primary production are specified in annex I of regulation 852/2004 apply to broiler flocks.

As a supplement to the provisions in the legislation the Industry has issued a “Guide for Good Hygienic Practice for Broiler Production”, which has been in force since 1997. The Guideline is revised continuously and the latest edition is from 2003.

From 1 January 2008 the Industry is obliged in broilers as well as layers, to have an own check programme that fulfils the demands in a guideline, which must be assessed by the competent Authority to be sufficient to prevent introduction of salmonella in the production chain and to combat salmonella if already introduced.

(d)2.3.3 Hygiene in transporting animals to and from farms

Animals from infected flocks belonging to holdings placed under public supervision are to be kept isolated and special conditions apply for removal of animals. In this connection, the district veterinary officer from the Regional Veterinary and Food Control Authority can perform control visits, if necessary. The district veterinary officer can issue a permit enabling logistic slaughtering, i.e. salmonella-negative flocks are slaughtered prior to flocks that have been found positive in order to limit cross-contamination (cf. Orders no. 1260 and 1463). It is also possible to order infected holdings with both parent flocks and production flocks to prepare an action plan that aims to reduce the risk of salmonella infection.

(d)2.4 Routine veterinary supervision of farms
### (d)2.5 Registration of farms

All holdings are registered in a central database, named the Central Husbandry Register (CHR) according to Order no. 59 of 18 January 2010. The CHR is owned by the Ministry of Food, Agriculture and Fisheries, and was launched in 1992. An unambiguous number registers each holding. For every holding the database covers measures and data concerning the flocks. The Danish Veterinary and Food Administration, which is part of the ministry, is responsible for supplying the database with information. Furthermore, the Salmonella Database is solely used for poultry and contains information on all registered holdings as well as all laboratory results, measures and all data concerning the poultry.

### (d)2.6 Record keeping at farm

According to legislation all holdings have to keep comprehensive records concerning purchase and sale of animals. Records also include data on a.o. illness and mortality.
(d)2.7 Documents to accompany animals when dispatched

Animals from infected flocks belonging to holdings placed under public supervision are to be kept isolated and special conditions apply for removal of animals. These rules are defined in Order no. 1462 on. Animals for export are followed by the relevant documents regarding export or trade.

(max. 32000 chars) :

(d)2.8 Other relevant measures to ensure the traceability of animals

Animals from infected flocks belonging to holdings placed under public supervision are to be kept isolated and special conditions apply for removal of animals. These rules are defined in Order no. 1462
**1. Identification of the programme**

<table>
<thead>
<tr>
<th>Disease</th>
<th>Zoonotic Salmonella</th>
</tr>
</thead>
<tbody>
<tr>
<td>Species</td>
<td>Breeding flocks of Gallus gallus</td>
</tr>
<tr>
<td>Request of Community co-financing for year</td>
<td>2013</td>
</tr>
</tbody>
</table>

**1.1 Contact**

<table>
<thead>
<tr>
<th>Name</th>
<th>Pernille Charlotte Sørensen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phone</td>
<td>+45 7227 6615</td>
</tr>
<tr>
<td>Fax.</td>
<td>+45 7227 5004</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:PES@FVST.DK">PES@FVST.DK</a></td>
</tr>
</tbody>
</table>

**2. Historical data on the epidemiological evolution of the disease**

A concise description is given with data on the target population (species, number of herds and animals present and under the programme), the main measures (testing, testing and slaughter, testing and killing, qualification of 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.

(max. 32000 chars):

The National Salmonella Control Programme includes every type of flock of the domestic fowl, Gallus gallus, in the broiler and table-eggs sectors. The only exception is hobby flocks, i.e. small flocks with less than 100 animals, which are not allowed to sell eggs to consumers but can participate in the programme on a voluntary basis. The number of holdings, flocks and animals in the broiler and table egg sectors as per 31 December 2010 are shown in Table 1.

In 2008, the prevalence in breeding flocks was 0.68%, in 2009 it was 0.82%, and in 2010 it was 0.87%. Though there is no significant progress, the prevalence has every year been below 1%.
### Description of the submitted programme

A concise description of the programme is given with the main objective(s) (monitoring, control, eradication, qualification of herds and/or regions, reducing prevalence and incidence), the main measures (testing, testing and slaughter, testing and killing, qualification of herds and animals, vaccination), the target animal population and the area(s) of implementation and the definition of a positive case.

(max. 32000 chars):

The main objectives of the control programme are:

a) To further reduce the incidence of infected table egg layer flocks
b) To further reduce the prevalence of infected broiler flocks/batches of birds
c) To further reduce the occurrence of human salmonellosis related to Danish-produced poultry products.

The programme is described in Annexes 2A, 2B and 3.
The results for 2010 are summarized in Annex 4-6

The National Salmonella Control Programme includes every type of flock of the domestic fowl, Gallus gallus, in the broiler and table-eggs sectors. The only exception is hobby flocks, i.e. small flocks with less than 100 animals, which are not allowed to sell eggs to consumers but can participate in the programme on a voluntary basis.
The number of holdings, flocks and animals in the broiler and table egg sectors as per 31 December 2010 are shown in Table 1.

The programme is implemented in Denmark, which is considered to be one region.

### Measures of the submitted programme

#### 4.1 Summary of measures under the programme

*Year of the programme: 2013*
4.2 Designation of the central authority in charge of supervising and coordinating the departments responsible for implementing the programme

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.

(max. 32000 chars):

The public administration is divided into one central and 2 regional sections. The central section is located in the headquarter of the Danish Veterinary and Food Administration, situated in Mørkhøj outside Copenhagen, where the Division for Microbiological Food Safety, Hygiene and Zoonoses Control is responsible for activities relating to the National Salmonella Control Programme. The Division for Microbiological Food Safety, Hygiene and Zoonoses Control is supervising and having the overall control with the programme. The central section controls among other things the regional follow-up on suspected and infected flocks.

The 2 Regional Veterinary and Food Control Authorities (RVFCA) are responsible for the practical accomplishment of the National Salmonella Control Programme, i.e. the administration of investigating positive salmonella results has been delegated to the RVFCA. The activities of RVFCA comprise collection of some routine samples and all samples from suspected flocks, placing infected herds under public supervision, information to farmers about restrictions and precautions etc., as well as approval of cleaning and disinfection after removal of infected flocks.

The National Veterinary Institute is national reference laboratory (NRL) performing serological and some of the bacteriological analyses. Furthermore, some private laboratories have been approved to perform certain bacteriological routine analyses. The NRL with intervals organizes collaborative testing of the approved laboratories. The NRL evaluates the laboratories on basis on results in testing of samples delivered by the NRL.
The participating laboratories are by routine tested for the MSRV-method. Laboratories, which apply other methods of analysis in official controls, must participate in collaborative testing in these methods as well.

The Danish Poultry Council is the industrial organization for producers, egg packing stations, hatcheries and slaughterhouses and is represented in task groups. The industry has the financial responsibility for the National Salmonella Control Programme. The Danish Poultry Council is responsible for the daily administration of the programme. The Danish Poultry Council is responsible for continuously updating the registration of all poultry producers (including farm-gate sellers) and for informing and guiding the producers, so they are fully capable of complying with the National Salmonella Control Programme and for investigating any irregularities. The Danish Veterinary and Food Administration plans to continuously monitor the Danish Poultry Council’s administration and continuation of the National Salmonella Control Programme.

The Danish Poultry Council is responsible for registering new cases of suspected infection in the Salmonella Database. Laboratory results are sent direct to the producer, to the Regional Veterinary and Food Control Authorities (RVFCA) and to the Danish Poultry Council. A regional categorisation of search options within the database enables each RVFCA to follow the progression of a suspected infection in its own area. One element on which the future supervision of the National Salmonella Control Programme will be based is the internal control exercised by each enterprise. Egg packing stations are under an obligation to discard the eggs of any producers who have not taken scheduled samples as planned or who are placed under suspicion.

The steering committee and two technical task groups work continuously, thereby providing continuous monitoring of the continuation of the programme. The steering committee is given the executive responsibility for the wording and scientific veterinary content of the National Salmonella Control Programme and for approving all amendments. The Danish Veterinary and Food Administration is represented in these groups and has the chairmanship of the steering committee.

### 4.3 Description and delimitation of the geographical and administrative areas in which the programme is to be implemented

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.

(max. 32000 chars):

The programme is implemented in Denmark, which is considered to be one region.
NUTS-region DK 1

### 4.4 Measures implemented under the programme

Where appropriate Community legislation is mentioned. Otherwise the national legislation is mentioned.
4.4.1 Measures and applicable legislation as regards the registration of holdings

(max. 32000 chars):
Order no. 59 of 18 January 2010 on Registration of Holdings in the Central Husbandry Register

4.4.2 Measures and applicable legislation as regards the identification of animals

Not applicable for poultry

(max. 32000 chars):
Not applicable for poultry

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

(max. 32000 chars):
Order no. 1260 of 15 December 2008 on the Control of Salmonella in Table Egg Flocks and Pullets Reared for them
• Order no. 1463 of 16 December 2009 on the Control of Salmonella in Hatching Egg Layer Hens and Pullets Reared for them
• Order no. 1462 of 16 December 2009 on salmonellosis in poultry and Salmonella and Campylobacter in slaughter poultry
• Order no. 1450 of 23 December 2009 on poultry production and turnover of poultry

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

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
Measures and applicable legislation as regards the measures in case of a positive result fulfil the provisions of as Commission Regulation (EC) No 213/2009.

A positive routine sample found at the hatchery causes that a district veterinary officer from the Regional Veterinary and Food Control Authorities (RVFCA) samples the flock, i.e. “suspicion sampling”. If the suspicion is confirmed, the flock is declared infected with salmonella. Official veterinary supervision is imposed on all holdings with infected flocks.

Holdings with breeding flocks of poultry infected with either Salmonella Enteritidis, S. Typhimurium, S. Virchow, S. Infantis or S. Hadar, will be placed under public veterinary supervision according to Order no. 1463. Hereafter, they will immediately be either slaughtered or destroyed in compliance with the Zoonoses Directive. In addition, hatching eggs are destroyed or heat-treated.

For other serovars of salmonella in breeding flocks and for all salmonella serovars in production animals, holdings with infected flocks will be subject to public veterinary supervision according to Order no. 1260 and Order no. 1463. The restrictions encompass destruction or heat-treatment of eggs from the date of suspected infection at an authorised egg product plant, isolation of infected flocks, extra hygienic measures e.g. special precautionary measures for coming and going between infected and uninfected flocks, special conditions for removal of animals and eggs as well as for handling of feeding stuffs and manure etc.

Intensified sample taking can be implemented in other table egg layer flocks at the same holding if infected flocks have been found. As a result, samples are taken under public supervision every 4 weeks instead of every 9 weeks from all uninfected flocks of a holding.

In herds with broiler flocks, a requirement for the heat treatment of all poultry meat of hens and chickens testing positive for salmonella prior to slaughter has been introduced in 2008. In addition, the control programme requires thorough cleaning and disinfection following detection of salmonella in a broiler flock. In the following flock the owner must take one extra pair of sock samples in order to locate the source of any possible infection. In addition, the down-time after the slaughter of the following flock shall be extended to at least 12 days in order to ensure sufficient cleaning and disinfection of the poultry house.

A district veterinary officer from the Regional Veterinary and Food Control Authority must approve cleaning and disinfection on the basis of a visual and bacteriological assessment before it is legal to place new stock in an infected poultry house.

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

- Order no. 1260 of 15 December 2008 on the Control of Salmonella in Table Egg Flocks and Pullets Reared for them
- Order no. 27 of 22 January 2009 to amend Order no. 1260 of 18 December 2008
- Order no. 1463 of 16 December 2009 on the Control of Salmonella in Hatching Egg Layer Hens and Pullets Reared for them
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 concerned

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:

(max. 32000 chars):

Animals from infected flocks belonging to holdings placed under public supervision are to be kept isolated and special conditions apply for removal of animals. In this connection, the district veterinary officer from the Regional Veterinary and Food Control Authority can perform control visits, if necessary. The district veterinary officer can issue a permit enabling logistic slaughtering, i.e. salmonella-negative flocks are slaughtered prior to flocks that have been found positive in order to limit cross-contamination (cf. Orders no. 1463 and 1260). It is also possible to order infected holdings with both parent flocks and production flocks to prepare an action plan that aims to reduce the risk of salmonella infection.

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

(max. 32000 chars):

Legislation on the use of antimicrobials and vaccines are in accordance with Commission Regulation No1177/2006/EC. It is prohibited to vaccinate poultry against salmonella in Denmark. It is not allowed to use antibiotics against a salmonella-infection.

Tests used and sampling schemes: See annexes Tables 2A, 2B and 3. The results for 2010 are summarized in Annex 4-6.

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

(max. 32000 chars):

No national funding exists except for compensation for slaughter or destruction of breeding flocks infected with either Salmonella Enteritidis, S. Typhimurium, S. Virchow, S. Infantis or S. Hadar, and ordered destruction or heat-treatment of hatching eggs in compliance with the Zoonosis Directive. According to Order no. 239 and 812, there will be a compensation for the value of the animals and the destruction costs as well as a 20% compensation for the owners operating loss. Furthermore, compensation is also given for the value of “killed suspicion hens”.

4.4.9 Information and assessment on bio-security measures management and infrastructure in place in the flocks/holdings involved
Poultry hatcheries and breeders must have an approval from the authorities before they start production. Such an approval is based on a.o. an evaluation of the hygiene standard of the buildings and the surroundings, and protection against introduction of infectious diseases. There are also provisions for the daily operation of the production such as cleaning and disinfection of buildings and surroundings before new chicks are put into the houses as well as requirements for transport of chicks and measures taken in case of suspicion of illness among the animals. These provisions are laid down in Order No. 1450 of 23 December 2009, which implements annex II of Council Directive 90/539/EEC of 15 October 1990 on animal health conditions governing intra-Community trade in, and imports from third countries of, poultry and hatching eggs in Danish legislation.

The general requirements for hygiene measures in the primary production are specified in annex I of regulation 852/2004 apply to broiler flocks.

As a supplement to the provisions in the legislation the Industry has issued a “Guide for Good Hygienic Practice for Broiler Production”, which has been in force since 1997. The Guideline is revised continuously and the latest edition is from 2003.

From 1 January 2008 the Industry is obliged in broilers as well as layers, to have an own check programme that fulfils the demands in a guideline, which must be assessed by the competent Authority to be sufficient to prevent introduction of salmonella in the production chain and to combat salmonella if already introduced.

Guides are available to the public in printed versions. Availability on the internet is expected in 2010/2011. The official veterinarian will use the same checklists as the operator when supervising the programme.

5. **General description of the costs and benefits of the programme**

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

For many years it has been known that poultry in general often harbour latent infections with salmonella. Under proper management this is rarely associated with outbreaks of disease in poultry flocks. However, this latent infection in poultry may pose a serious human health risk. The overall aim of the National Salmonella Control Programme is to control the occurrence of salmonella in the poultry sector on a very low level and thereby protect humans against infection with food-borne salmonellas. Salmonella Enteritidis causes the major part of salmonella infections in commercial egg layer flocks and human infections with S. Enteritidis are mainly associated with infected eggs. It is not possible direct to compare cost and benefit in connection with the effort. But in Denmark the consumers demand that the outermost possible is done to secure the quality of food-stuffs. Even if there was no public demand about salmonella, the egg packing stations and poultry slaughterhouses would presumably be forced to do a lot of effort anyhow.
The results for 2010 are summarized in Annex 4-6
6. Data on the epidemiological evolution during the last five years

Data already submitted via the online system for the years 2007 - 2010:

The data on the evolution of zoonotic salmonellosis are provided according to the tables where appropriate.

6.1 Evolution of the zoonotic salmonellosis

6.1.1 Data on evolution of zoonotic salmonellosis for year: 2011
### 6.2 Stratified data on surveillance and laboratory tests

#### 6.2.1 Stratified data on surveillance and laboratory tests for year: 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>Test Type</th>
<th>Test Description</th>
<th>Number of samples tested</th>
<th>Number of positive samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>serological test</td>
<td>Serological test (Antigen-mix)</td>
<td>45</td>
<td>1 x</td>
</tr>
</tbody>
</table>

(a) Including eligible and non eligible flocks for the programme
(b) 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.
(c) If a flock has been checked, in accordance with footnote (b), more than once, a positive sample must be taken into account only once.
### 6.3 Data on infection for year: 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of herds infected</th>
<th>Number of animals infected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>5</td>
<td>87,093</td>
</tr>
<tr>
<td>Total</td>
<td>5</td>
<td>87,093</td>
</tr>
</tbody>
</table>

### 6.4 Data on vaccination or treatment programmes for year: 2011

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number of herds</th>
<th>Total number of animals</th>
<th>Number of herds in vaccination or treatment programme</th>
<th>Number of herds vaccinated or treated</th>
<th>Number of animals vaccinated or treated</th>
<th>Number of doses of vaccine or treatment administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>275</td>
<td>106,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>275</td>
<td>106,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
7. Targets

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

7.1.1 Targets on diagnostic tests for year: 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of the test (description)</th>
<th>Target population (categories and species targeted)</th>
<th>Type of sample</th>
<th>Objective</th>
<th>Number of planned tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>BACTERIOLOGICAL DETECTION TEST IN FRAME</td>
<td>Breeding flocks of Gallus gallus</td>
<td>Faeces</td>
<td>Number of tests are not separated into</td>
<td>0</td>
</tr>
</tbody>
</table>

| Total AMR/BIH tests | 0 |
| Total BACTERIOLOGICAL DETECTION TEST IN FRAME OF OFFICIAL SAMPLING | 0 |
| Total SEROTYPING IN THE FRAME OF OFFICIAL SAMPLING | 0 |

Add a new row
### 7.1.2 Targets on testing of flocks for year: 2013

<table>
<thead>
<tr>
<th>Region</th>
<th>Type of flock</th>
<th>Total number of flocks (a)</th>
<th>Total number of animals (b)</th>
<th>Total number of flocks/herds under the programme</th>
<th>Total number of animals under the programme</th>
<th>Number of flocks checked (b)</th>
<th>Serotype</th>
<th>Number of positive flocks (c)</th>
<th>Number of flocks depopulated</th>
<th>Total number of animals slaughtered or destroyed</th>
<th>Quantity of eggs destroyed (number)</th>
<th>Quantity of eggs channelled to egg product (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danmark</td>
<td>Breeding flocks</td>
<td>275</td>
<td>106 000</td>
<td>275</td>
<td>106 000</td>
<td>375</td>
<td>salmonella enteritidis</td>
<td>7</td>
<td>5</td>
<td>87 093</td>
<td>1 305 588</td>
<td>509 473</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>275</td>
<td>106 000</td>
<td>275</td>
<td>106 000</td>
<td>375</td>
<td></td>
<td>7</td>
<td>5</td>
<td>87 093</td>
<td>1 305 588</td>
<td>509 473</td>
</tr>
</tbody>
</table>

(a) Including eligible and non eligible flocks for the programme

(b) 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 one.

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

### 7.2 Targets on vaccination or treatment
### 7.2.1 Targets on vaccination or treatment for year: 2013

<table>
<thead>
<tr>
<th>NUTS Region</th>
<th>Total number of herds in vaccination or treatment programme</th>
<th>Total number of animals in vaccination or treatment programme</th>
<th>Number of herds or flocks in vaccination or treatment programme</th>
<th>Number of herds or flocks expected to be vaccinated or treated</th>
<th>Number of animals expected to be vaccinated or treated</th>
<th>Number of doses of vaccine or treatment expected to be administered</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>X</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Add a new row
## 8. Detailed analysis of the cost of the programme for year: 2013

### 1. Testing

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of tests</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of analysis</td>
<td>BACTERIOLOGICAL DETECTION TEST IN FRAM</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>no</td>
</tr>
</tbody>
</table>

### 2. Vaccination (if you ask cofinancing for purchase of vaccins, you should also fill in 6.4 and 7.2)

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of vaccine doses</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vaccination</td>
<td>Purchase of vaccine doses</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>no</td>
</tr>
</tbody>
</table>

### 3. Slaughter and destruction (without any salaries)

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slaughter and destruction</td>
<td>Compensation of animals</td>
<td>87 093</td>
<td>4</td>
<td>348372</td>
<td>yes</td>
</tr>
<tr>
<td>Slaughter and destruction</td>
<td>Costs from treatment of animal products (hatching etc)</td>
<td>1</td>
<td>0.16</td>
<td>0.16</td>
<td>yes</td>
</tr>
</tbody>
</table>

### 4. Cleaning and disinfection

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
</table>
**CLEANING/DESINFECTION : VERIFICATION OF THE EFFICIENCY OF DESINFECTION**
Test for verification of the efficiency of desinfection | 0 | 0 | 0 | no | x

5. **Salaries (staff contracted for the programme only)**

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>Salaries</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>no</td>
</tr>
</tbody>
</table>

6. **Consumables and specific equipment**

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumables and specific equipment</td>
<td>Consumables and specific equipment</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>no</td>
</tr>
</tbody>
</table>

7. **Other costs**

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other costs</td>
<td>N.A.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>no</td>
</tr>
</tbody>
</table>

8. **Cost of official sampling**

<table>
<thead>
<tr>
<th>Cost related to</th>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of official sampling</td>
<td>Cost of official sampling</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>no</td>
</tr>
</tbody>
</table>

**Total**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Number of units</th>
<th>Unitary cost in EUR</th>
<th>Total amount in EUR</th>
<th>Union funding requested</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>87 094</td>
<td>348 372.16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Attachments

IMPORTANT:
1) The more files you attach, the longer it takes to upload them.
2) This attachment files should have one of the format listed here: .zip, .jpg, .jpeg, .tiff, .tif, .xls, .doc, .bmp, .pna.
3) The total file size of the attached files should not exceed 2 500Kb (+- 2.5 Mb). You will receive a message while attaching when you try to load too much.
4) IT CAN TAKE SEVERAL MINUTES TO UPLOAD ALL THE ATTACHED FILES. Don't interrupt the uploading by closing the pdf and wait until you have received a Submission Number!
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