



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

SANCO/10289/2009

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

**Control programme of Salmonella in breeding, laying
and broiler flocks (*Gallus gallus*) and in flocks of
turkeys (*Meleagris gallopavo*)**

Approved* for 2010 by Commission Decision 2009/883/EC

Hungary

* in accordance with Council Decision 2009/470/EC



**Central Agricultural Office
Animal Health and Animal Welfare Directorate**

HUNGARY

Application

**for Community financing for the national control programme
of Hungary for**

**Salmonella spp.
in broiler flocks of Meleagris gallopavo**

for the year 2010.

30th of April, 2009

Part A

General requirements for the national salmonella control programmes

- (a) The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards broiler flocks of *Meleagris gallopavo* in the territory of Hungary. The programme covers the two zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*).
- (b) Protection against salmonellosis is mandatory pursuant to the relevant EU provision as of 1 January 2010. A Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (1. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the Decree was to ensure compliance with the changes in the Community legislation. The Decree sets the conditions of the obligatory control measures in breeding, laying and broiler flocks of *Gallus gallus* and voluntary (mandatory from 2010) measures in breeding and broiler flocks of *Meleagris gallopavo* against specified *Salmonella* serotypes. The Decree 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 Council¹ indicating the relevant animal population and phases of production which sampling cover

rearing flocks — day-old chicks (national legislation)

adult broiler flocks — birds leaving for slaughter

More information about testing scheme: please see *Part B Chapter 7.2*

- (c) The Decree complies with the specific requirements laid down in Parts C, D and E of Annex II to Regulation (EC) No 2160/2003

(d) I General

- 1.1. The short summary referring to the occurrence of the salmonellosis [zoonotic salmonella] in Hungary with specific reference to the results obtained in the framework of monitoring in accordance with Article 4 of Directive 2003/99/EC of the European Parliament and of the Council², particularly highlighting the prevalence values of the salmonella serovars targeted in the salmonella control programmes: Please see Part B Chapter 2.
- 1.2. The structure and organization of the relevant competent authorities: Please see Annex I.
- 1.3. Laboratories involved in the programme must be accredited by the National Accreditation Body (NAT) and supervised by the National Salmonella Reference Laboratory (NRI) of the Republic of Hungary (Food and Feed Safety Directorate (formerly named: National Food Investigation Institute), Central Agricultural Office). The NRI will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).
- 1.4. Methods used in the examination of the samples in the framework of the programme: Please see Part B Chapter 7.3
- 1.5. Official controls (including sampling schemes) at feed, flock and/or herd level: Please see Part B Chapter 7.2.1.
- 1.6. 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: Please see Part B Chapter 4.4.3. and Chapter 4.4.4.

¹ OJ L 325, 12.12.2003, p. 1.

² OJ L 325, 12.12.2003, p. 31.

1.7. National legislation relevant to the implementation of the programme, including national provisions concerning the activities set out in the programme: Please see Part B Chapter 4.4.7

1.8. Financial assistance provided to food and feed businesses in the context of the programme: Costs and benefits are calculated based on the previous year's data of the Poultry Product Board of Hungary. In the case of broiler flocks of *Meleagris gallopavo* costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleansing and disinfection) as well as financial losses due to decreased income for the poultry industry.

Veterinary Act No. XLVI. of 2008, on the food chain and its official control and Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses and Decree No. 148/2007. (XII.7.) on the prevention of certain animal diseases and the order of claiming subsidy and payment regarding their overcome in 2009 give the financial guarantee of the national programme.

2. Concerning food and feed businesses covered by the programme

2.1. The structure of the production

Broiler flocks are kept usually until the age of 112-154 days (depending on the technology and the sexual status). As cleansing take place after every flock, each year 2,5 flocks can be reared in a certain airspace in average.

2.2. The structure of the production of feed.

Feeding of poultry, including broiler flocks of *Meleagris gallopavo* is based on cereal products, mainly on corn, barley and wheat. Soybean and fishmeal is used as a source of protein.

Commercial feed producers are operating according to GMP standards. Broiler flocks mainly use commercial pelleted feed, the technology of production of which includes heat treatment.

In Hungary, control of feedingstuffs is performed according to two main piece of legislation:

Act No. CXIX. of 2001 on the production, marketing and use of feedingstuffs, and

Decree of the Ministry of Agriculture and Rural Development No. 43/2003. (IV. 26.) on the implementation of the above Act.

The Act lays down general principles of the control of feed, sets the competent authorities and allocates the tasks to these services.

According to Art. 4. (1) of the Act, a feed production plant may be authorised by the competent County Animal Health Station. The authorisation must be renewed at periods of a maximum of 5 years. Other authorities are also involved in the authorisation process.

The registration of the feed production units is done by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

Article 6. (1) states that the feedingstuffs produced may neither pose a direct health risk to livestock, nor an indirect risk to public health.

Therefore, the competent Directorate of Food Chain Safety and Animal Health of County Agricultural Office perform regular controls of the feed production plants, including the production, keeping, marketing, transport and use of feed produced. Controls also include compliance with feed hygiene rules, safety, composition, microbiological safety of feedingstuffs, as well as many other parameters such as the presence of prohibited substances, packaging, labelling etc.

In case of non-compliance with any of the parameters listed in the Act and the Decree, the competent County Animal Health Station may prohibit the production, keeping, marketing, transport, export, import or transport of the relevant feed. If such feed was already used, the Directorate of Food Chain Safety and Animal Health of County Agricultural Office has a duty to notify the county level public health authority.

The Decree gives detailed instruction to authorities and stakeholders on how to implement the Act. Annex 20 to the Decree sets out the maximum tolerable amount of *Salmonella* spp. in food and the related ISO standards. According to ISO 6579:2002, feedingstuffs must show zero *Salmonella* spp. / 25 grams.

In addition, the same Annex states that feedingstuffs must be free of any pathogens which may pose a direct risk to animal health and/or an indirect risk to public health.

2.3. Relevant guidelines

Hungary has relevant guidelines for good animal husbandry practices or other guidelines (mandatory or voluntary) on biosecurity measures defining the hygiene management at farms, the measures preventing incoming infections carried by animals, feed, drinking water, people working at farms, and about hygiene in transporting animals to and from farms. The guideline of Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis, the guideline about feed control, the guideline of animal transports and the Hungarian Poultry Product Board's guideline for good practice. All farms have to made an own biosecurity programme and all have to get checked by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

2.4. Routine veterinary supervision of farms:

Controls are planned annually by the Food Chain Safety Deputy President of Central Agricultural Office. Number of controls depends on risk estimate.

2.5. Registration of farms:

Registration of the breeding flocks by the veterinary authority is compulsory under Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code, Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System. For more information please see Part B Chapter 4.2.

2.6. Record-keeping at farms: All documents concerning to the programme must be kept for 3 years. The documentation have to contain all data about animals, transports, samples and medication

2.7. Documents to accompany animals when dispatched.

Commercial poultry consignments are accompanied with animal health certificates according to Directive 90/529/EC. Consignments with national destinations are accompanied with animal health certificates according to Decree 41/1997. (V. 28.) FM appendices 8/a and 8/b.

In accordance with Paragraph 85. of Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code, the official veterinarian carries out a stock examination within 12 hours before transportation, and on the basis of the financing/allowance plan, fills out the animal health certification in the appendices 8/a. and 8/b., certifies the place of origin of the day-old animals, their circumstances free from epidemic, the name of the vaccine used, the time and method of the immunization. Because of the changes occurred since the publication of the legislation, this ordinance cannot be fulfilled in these days.

„Animals can only be transported when accompanied by a valid certification attested by the veterinarian responsible for treatment” in accordance with point 4.2.1. point (Starting of poultry consignments) of the guide which was prepared for poultry hatcheries that are obliged to TIR registration, in accordance with point d) of Paragraph 6. of Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System (hereinafter: BIR regulation). In pursuance with point 4.2.1., „The hatchery starting the consignment has to fill in the Poultry movement form 2740, on the upper part of which the data of starting has to be given”.

The poultry animal health certificate laid down in the BIR regulation is not to replace the certificate 8/b., as the authority responsible for animal health takes part in issuing the latter only.

At the same time, even the certification 8/a. can not be replaced by the introduction of the BIR regulation, as certain data that have to be certified by the veterinarian in the certificate 8/a are not placed on the latter, for example immunizations carried out in the stock, diagnostical examinations and the results thereof.

In pursuance of the abovementioned regulations, all three certifications are required for the transport of the day-old poultry. The BIR certification is drawn up by the veterinarian responsible for treatment, while certifications 8/a. and 8/b. are filled in by the approved veterinarian, in accordance with the Governmental Decree No 113/2006. (V. 12.) on the competence and detailed rules of the

activity of the approved veterinarian, with the exception of the case when the the approved veterinarian is not the treating veterinarian, because in those cases the certification 8/a. has to be filled in by the veterinarian of the hatchery.

As it can be seen from above, the current legislation of movement documentations doesn't seem to be unambiguous as regards several points.

For solving the problem, a working group was established. The working group is predestinated for revising the form and content of certificates for inland live animal transportation and as far as possible, for the harmonisation thereof.

2.8. Other relevant measures to ensure the traceability of animals. Please see Part A 2.7. and Part B Chapter 4.2. and Chapter 4.4.1.

Part B

1. Identification of the programme

Member State: **Hungary**

Disease: **Infection of animals with zoonotic *Salmonella* spp.**

Animal population covered by the programme: **Broiler flocks of *Meleagris gallopavo***

Year of implementation: **2010**

Reference of this document: **02.3/982/5/2008.**

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Date sent to the Commission: **30th of April, 2009**

2. Historical data on the epidemiological evolution of zoonotic salmonellosis specified in point 1

Monitoring and control programmes for *Salmonella* spp. (*S. Enteritidis* and *S. Typhimurium*) started in Hungary in 1997 by issuing official guidelines for the poultry sector. The goal of the project was to achieve similar targets as which were set by Council Directive 92/117/EEC. The collection of guidelines were ordered by the Ministry of Agriculture and were prepared by an expert group consisting of both Hungarian experts of various backgrounds (Hungarian Academy of Science, National Food Investigation Institute, Central Veterinary Institute and numerous practicing veterinarians) and experts of the Agri-Livestock Consultant Ltd (W. Edcl and C. Wray). The work was financed by the PIARE programme of the European Union under project No. HU 9304-05-02. The programme covered the whole poultry sector in relation of *Gallus gallus*, breeding flocks, hatcheries, broiler flocks, table egg producing layer flocks, egg packaging and distribution establishments, poultry slaughterhouses, cutting plants as well as feed mills. Because of the similarities the statements of this study can be used for the turkeys as well. The guidelines stated clearly that there is an urgent need for centralised official administrative measures in the form of a ministerial decree by the Minister of Agriculture.

The first decree was created in the year 2002: Decree 49/2002. (V. 24.) of the Minister of Agriculture and Rural Development on protection against salmonellosis and poultry typhus and on retaining officially free status, and was modified by the Decree 97/2003. (VIII. 19) Minister of Agriculture and Rural Development. A new Decree was created and came into force on the

7th of January, 2008, and can be referred to as Decree 2/2008. (L. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the new Decree was to ensure compliance with the changes in the Community legislation.

The Decree sets the conditions of the obligatory control measures in breeding, laying and broiler flocks and voluntary (mandatory from 2010) measures in breeding and broiler flocks of *Meleagris gallopavo* against specified *Salmonella* serotypes. As a prerequisite, there is an obligation of the holdings keeping broiler flocks of *Meleagris gallopavo* to be registered by the State Veterinary Service. Results of testing required by the Decree are also to be notified to the Directorates of Food Chain Safety and Animal Health of County Agricultural Office (formerly named: County Animal Health and Food Control Station).

The baseline study of the prevalence of *Salmonella* spp. in broiler flocks of *Meleagris gallopavo* carried out according to Commission Decision 2006/662/EC shows that infection of broiler flocks for *Salmonella* Enteritidis and *Salmonella* Typhimurium is 3,4%. According to monitoring tests carried out infection with any *Salmonella* serotype is 81,2%. The Community target which is set by Commission Regulation No 584/2008 (EC) Art. (1) of flocks of broilers remaining positive of *Salmonella* Enteritidis and *Salmonella* Typhimurium is 1% or less by 31 December 2012. This goal can only be achieved by a rigorous control programme using extensive professional and financial resources.

3. Description of the submitted programme

The main objective of the programme is to comply with existing Community legislation to achieve Community prevalence targets within the defined time period available as regards broiler flocks of *Meleagris gallopavo* in the territory of Hungary. The European legislation set targets of *Salmonella* Enteritidis and *Salmonella* Typhimurium (according to Commission Regulation No 584/2008 (EC), with effect from 84 months after entry into force of Regulation (EC) No 2160/2003 of the European Parliament and of the Council, fresh poultry meat from broiler flocks of *Gallus gallus* may not be placed on the market for human consumption unless absence of *Salmonella* in 25 grams.

All broiler flocks of *Gallus gallus* included in the programme are registered in the territory of Hungary.

Laboratories involved in the programme must be accredited by the National Accreditation Body (NAT) and supervised by the National *Salmonella* Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate, Central Agricultural Office) The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).

4. Measures of the submitted programme

4.1. Summary of measures under the programme of the broiler flocks

Duration of the programme:

First year: 2009

Last year: 2011

Control

Control/Eradication

- Testing
- Slaughter of positive animals
- Killing of positive animals
- Vaccination
- Treatment
- Disposal of products

- Testing
- Slaughter of positive animals
- Killing of positive animals
- Extended slaughter or killing
- Disposal of products

Monitoring or surveillance

Other measures (*specify*): Because many times we can not find any slaughterhouse for slaughter the positive flocks, in that cases we need to use the "killing of positive animals".

4.2. Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme:

All holdings must be registered at the district veterinary office. The official senior veterinary officer keeps and updates the record of holdings participating the programme. The official senior veterinary officer also declares the status of the holdings according to their actual serological status.

The 19 Directorates of Food Chain Safety and Animal Health of County Agricultural Offices coordinate and supervise the programme in their territory. They are required to annually report the actual status of the programme to the Animal Health and Animal Welfare Directorate of the Central Agricultural Office.

Name: Central Agricultural Office
Animal Health and Animal Welfare Directorate
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4.3. Description and delimitation of the geographical and administrative areas in which the programme is to be implemented:

The programme will be implemented on the whole territory of Hungary, from the 1st January 2010.

4.4. Measures implemented under the programme

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

Paragraph 3. (3) f) of Decree 2/2008. (l. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis states that all holdings must be registered.

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

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

According to the National Control Program:

"If the salmonella test result is positive, the laboratory immediately informs the competent County Agricultural Office and the operator concerned, and simultaneously sends the isolated salmonella stock together with a sample accompanying document complying with the template issued by Central Agricultural Office to the national reference laboratory operated by the Food and Feed Safety Directorate of Central Agricultural Office for testing and serotyping purposes. The copy of the accompanying document must be kept by the testing laboratory for 3 years."

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

By 1 January 2010, Decree 2/2008. (l. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis amended to cover all of the measures to be taken in case of a positive result in broiler flocks. It will include the measures which are now detailed in the national control program as follows:

If during serotyping the national reference laboratory finds infection with *Salmonella* Enteritidis, *Salmonella* Typhimurium, and the flock concerned has an official salmonella free certificate, the official senior veterinary officer immediately withdraws it. The official certificate of the other flocks of the farm may be simultaneously withdrawn, if the isolation of the infected flock is not fully guaranteed.

In exceptional cases where the competent authority has reasons to suspect false negative results at the first official sampling at the holding, a secondary official confirmatory sampling may be performed, composed of faeces or birds (for the detection of salmonella in organs).

In exceptional cases where the competent authority has reasons to suspect false positive sampling performed at the initiative of the operator at the holding, follow-up official sampling may be performed.

When the secondary official confirmatory test has a negative result, the official senior veterinary officer lifts the movement restriction of the flock and of its products.

If the result of the repeated test is also positive, or if there is not any repeated test, Part C Annex II to Regulation 2160/2003/EC must be followed. The official senior veterinary officer orders movement restriction of the given flock and its products, and immediately withdraws the official salmonella free certificate. The official certificate of other flocks of the farm may be simultaneously withdrawn, if the isolation of the infected flock is not fully guaranteed. In case of slaughtering the flock is sent to isolated slaughtering after the preliminary agreements with the slaughterhouse and the official senior veterinary officer supervising the slaughterhouse.

Processing procedures following the isolated slaughtering must be separated from the processing and handling of other basic materials of animal origin until salmonella is killed in an efficient and confirmed way, and these must be preliminary consulted with the competent official senior veterinary officer. Wording "Originating from a salmonella positive flock" must be legibly and inerasably indicated on each packaging unit of the food basic material deriving

from the isolated slaughter and processing, directly near the identification code and the tracking sign used within the establishment, as well as on the accompanying sales document. Raw material deriving from a positive flock may be used only for preparation of foods and the production process steps shall guarantee the end-product food to be free of salmonella. This must be confirmed with laboratory microbiological test results before marketing of each such food item into retail trade, and the competent supervising official veterinarian must be notified therefore.

After emptying the keeping place of the infected flock cleansing and stringent disinfection must take place as well as rodent and insect control in accordance with legislation in force. The remaining bedding must be disposed in accordance with the relevant legal rule.

After taking these necessary steps, laboratory tests shall be carried out to control the efficiency of measures taken.

Restocking into the airspace concerned is permitted by the competent County Agricultural Office only if the efficiency of disinfection is found satisfactory on the basis of the laboratory test.

The presence of salmonella species in the feed of the infected flock must be immediately tested in accordance with the relevant legal rule. The feed may be given only to the infected flock until the test is closed with a negative result. If the feed is found infected it must be disposed in accordance with the relevant legal rule, and facilities used for its storage and transportation must be disinfected. A separate test must be made for the detection of salmonella at the feed operator supplying the feed if infection is found.

The operator revises the contingency plan within 30 days from receiving the positive test result and submits it to the competent County Agricultural Office for re-approval. The contingency plan must contain revision of the hygienic conditions, particularly of the disinfection procedures and the efficiency of rodent control, the test results relating to the potential causes of the infection, and also the list of measures considered necessary. The plan is evaluated by the competent County Agricultural Office. In case the plan is found unsatisfactory by County Agricultural Office, it calls upon the operator to modify it.

If the operator does not have an approved plan within 30 days from the warning, the competent County Agricultural Office considers the flock as if it does not take part in the program for protection against salmonellosis. Such flocks is not able to get officially salmonella free certificate."

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

See point 4.4.4.!

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:

See point 4.4.4.!

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

- Regulation (EC) No. 2160/2003. of the European Parliament and of the Council on the control of Salmonella and other food-borne zoonotic agents
- Commission Regulation (EC) No 584/2008 of 20 June 2008 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of Salmonella Enteritidis and Salmonella Typhimurium in turkeys
- Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry
- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 2/2008. (I. 4.) of Minister of Agriculture and Rural Development
- Decree No. 41/1997. (V. 28.) of Minister of Agriculture (Code of veterinary rules)

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

- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses in 2009

5. General description of the costs and benefits:

Costs are calculated based on estimation and information of the Central Agricultural Office and Poultry Product Board of Hungary. In case of broiler flocks, costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including testing on initiative of both the operator and the veterinary authority), the measures to be applied in the case of infection with *S. Enteritidis* and *S. Typhimurium* (slaughter or killing of the flock, condemnation, transportation, cleaning and disinfection) as well as financial losses due to decreased income for the poultry industry.

A detailed description of the costs is listed under point 8.

Benefits in case of the successful programme include improved food safety which contributes largely to the achievement of public health goals of the Community.

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

As the control programme will start by 1st of January, 2010, evolution data are not yet available.

7. Targets

7.1. Targets related to testing

7.1.1. Targets on diagnostic tests

Number and specification of tests

Mandatory testing will be performed in all registered broiler flocks of turkeys. A preliminary calculation was made on the approximate number of tests to be performed in the flocks. The number of tests calculated is based on the total of flocks containing more than 500 hens (1279 flocks at the moment according to the national register) and the testing scheme as provided for in Commission Regulation No 584/2008 of 20 June 2008 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of *Salmonella enteritidis* and *Salmonella typhimurium* in turkeys.

Broiler flocks are kept usually until the age of 112-154 days (depending on the technology and the sexual status). As cleansing take place after every flock, each year 2,5 flocks can be reared in a certain airspace in average. Sampling of flocks of fattening and breeding turkeys on the initiative of the food business operator shall take place in accordance with Article 5(3) of Regulation (EC) No 2160/2003 within three weeks before the birds are moved to the slaughterhouse. The results remain only valid until maximum six weeks after sampling and therefore repeated sampling of the same flock might be required.

The National legislation requires all relevant broiler flocks to be tested at day old too, the sampling method is the same in breeding flocks.

Given that in Hungary are 1279 broiler turkey flocks (~13000000 animals) the total number of samples to be taken is $(1279 \times 2,5) + (1279 \times 2,5 \times 3) = 12790$ samples (1279x2,5x2=6395 sampling)

are expected to be tested for the detection of *Salmonella* spp. As according to Commission Regulation (EC) No 584/2008 at least two pairs of boot/sock swabs shall be taken and all boot/sock swabs must be pooled into one sample.) Official samples number will be ~ 1300 (~10% of the relevant flocks/year).

Based on the baseline study data, 3,4% of the flocks are infected with *Salmonella* Enteritidis or *Salmonella* Typhimurium, 81,2% of the flocks are infected with any *Salmonella* serotypes.

Serotyping will be performed from each positive isolate. Positivity is expected to be detected in 81,2% of flocks ($1279 \times 0.812 = 1038,5$), summary $1038,5 \times 2 = 2077$ positive isolate will need serotyping in one production cycle, $2077 \times 2 = 4154$ per year.

However, an exact number of tests, which will be performed, is not possible, because not every operator rears the same amount of flocks every year and we have not got any data about the reinfection of the flocks.

Approximately 13000000 broilers are slaughtered in Hungary a year. Meat originated from *Salmonella* infected flocks will not be purchased by meat processing plants, therefore compensation is required ($13000000 \times 0.034 \times 2,3$ €; about 2,3 € is the price of a broiler to be slaughtered).

7.2. Testing scheme

1. Frequency and status of sampling

(a) The sampling frame shall cover all flocks of fattening and breeding turkeys covered by the scope of Regulation (EC) No 2160/2003.

(b) Flocks of turkeys shall be sampled on the initiative of the food business operator and by the competent authority.

Sampling of flocks of fattening and breeding turkeys on the initiative of the food business operator shall take place in accordance with Article 5(3) of Regulation (EC) No 2160/2003 within three weeks before the birds are moved to the slaughterhouse. The results remain only valid until maximum six weeks after sampling and therefore repeated sampling of the same flock might be required.

Sampling by the competent authority shall include at least:

— once a year, all flocks on 10 % of the holdings with at least 500 fattening turkeys, but in any case:

- all flocks on the holding when one flock tested positive for *Salmonella enteritidis* or *Salmonella typhimurium* in samples taken by the food business operator, unless the meat of the turkeys in the flocks is destined for industrial heat treatment or another treatment to eliminate salmonella, and

— all flocks on the holding when one flock tested positive for *Salmonella enteritidis* or *Salmonella typhimurium* during the previous round in samples taken by the food business operator, and

- each time the competent authority considers it necessary.

A sampling carried out by the competent authority may replace the sampling on the initiative of the food business operator.

2. Sampling protocol

At least two pairs of boot/sock swabs shall be taken. For free range flocks of turkeys, samples shall only be collected in the area inside the house. All boot/sock swabs must be pooled into one sample.

In flocks with less than 100 turkeys, where it is not possible to use boot/sock swabs as access to the houses is not possible, they may be replaced by hand drag swabs, where the boot swabs or socks are worn over gloved hands and rubbed over surfaces contaminated with fresh faeces, or if not feasible, by other sampling techniques for faeces fit for the intended purpose.

Before putting on the boot/sock swabs, their surface shall be moistened with maximum recovery diluents (MRD: 0,8 % sodium chloride, 0,1 % peptone in sterile deionised water), or sterile water or any other diluent approved by the national reference laboratory referred to in Article 11 of Regulation (EC) No 2160/2003.

The use of farm water containing antimicrobials or additional disinfectants shall be prohibited. The recommended way to moisten boot swabs shall be to pour the liquid inside before putting them on. Alternatively, boot swabs or socks may be autoclaved with diluents within autoclave bags or jars before use. Diluents may also be applied after boots are put on using a spray or wash bottle.

It shall be ensured that all sections in a house are represented in the sampling in a proportionate way. Each pair should cover about 50 % of the area of the house.

Alternatively, the competent authority may decide that one pair of boot swabs shall be taken, covering 100 % of the area of the house if combined with a dust sample, collected from multiple places throughout the house from surfaces with visible presence of dust.

On completion of sampling the boot/sock swabs shall be carefully removed so as not to dislodge adherent material. Boot swabs may be inverted to retain material. They shall be placed in a bag or pot and labelled.

The competent authority shall supervise education of the food business operators to guarantee the correct application of the sampling protocol.

In the case of sampling by the competent authority because of suspicion salmonella infection in a flock on that holding and in any other case considered appropriate, the competent authority shall satisfy itself by conducting further tests as appropriate so that the results of examinations for salmonella in flocks of turkeys are not affected by the use of antimicrobials in those flocks. Where the presence of *Salmonella enteritidis* and *Salmonella typhimurium* is not detected but antimicrobials or bacterial growth inhibitory effect are detected it shall be considered as an infected flock of turkeys for the purpose of the Community target referred to in Article 1(2).

3. Examination of the samples

3.1. Transport and preparation of the samples

Samples shall be sent by express mail or courier to the laboratories referred to in Articles 11 and 12 of Regulation (EC) No 2160/2003, within 24 hours after collection. At the laboratory samples shall be kept refrigerated until examination, which shall be carried out within 48 hours following receipt.

The pair of boot/sock swabs shall be carefully unpacked to avoid dislodging adherent faecal material, pooled and placed in 225 ml buffered peptone water (BPW) which has been pre-warmed to room temperature.

The sample shall be swirled to fully saturate it and culture shall be continued by using the detection method in point 3.2.

If ISO standards on the preparation of faeces for the detection of salmonella are agreed on, they shall be applied and replace the provisions on the preparation of samples set out in this point.

3.2. *Detection method*

The detection method recommended by the Community reference laboratory (CRI) for salmonella in Bilthoven, the Netherlands, shall be used.

That method is described in the current version of draft Annex D of ISO 6579 (2002): "Detection of *Salmonella spp.* in animal faeces and in samples of the primary production stage".

In that detection method, a semi-solid medium (modified semi-solid Rappaport-Vassiladis medium, MSR/V) is used as the single selective enrichment medium.

3.3. *Serotyping*

At least one isolate from each positive sample shall be serotyped, following the Kaufmann-White scheme.

3.4. *Alternative methods*

With regard to samples taken on the initiative of the food business operator, the methods of analysis provided for in Article 11 of Regulation (EC) No 882/2004 of the European Parliament and of the Council (1), may be used instead of the methods for the preparation of samples, detection methods and serotyping provided for in points 3.1, 3.2 and 3.3 of this Annex, if validated in accordance with EN/ISO 16140/2003.

3.5. *Storage of strains*

At least one isolated strain per house and per year shall be collected by the competent authority and stored for future phage typing or anti-microbial susceptibility testing, using the normal methods for culture collection, which must ensure integrity of the strains for a minimum of two years.

4. Results and reporting

4.1. *Calculation of prevalence for the verification of the Community target*

A flock of broiler turkeys shall be considered positive for the purpose of verifying the achievement of the Community target, where the presence of *Salmonella Enteritidis* and/or *Salmonella Typhimurium* (other than vaccine strains) was detected in the flock at any occasion.

Positive flocks of broilers shall be counted only once per round, irrespective of the number of sampling and testing operations and only be reported in the year of the first positive sampling.

4.2. Reporting

Reporting shall include:

- (a) the total number of flocks of broiler turkeys sampled by the competent authority or by the food business operator;
- (b) the total number of infected flocks of broilers;
- (c) all serotypes of *Salmonella* isolated (including other than *Salmonella Enteritidis* and *Salmonella Typhimurium*);
- (d) explanations of the results, in particular concerning exceptional cases.

The results and any additional relevant information shall be reported as part of the report on trends and sources provided for in Article 9(1) of Directive 2003/99/EC of the European Parliament and of the Council.

4.3. Additional information

At least the following information shall be made available from each flock of broilers tested for analysis at national level or by the European Food Safety Authority at its request:

- (a) sample taken by the competent authority or by the food business operator;
- (b) holding reference, remaining unique in time;
- (c) house reference, remaining unique in time;
- (d) month of sampling.

7.3. Targets on vaccination or treatment

Vaccination is not compulsory in broiler flocks of *Meleagris gallopavo*. The rules of using vaccination and treatment are laid down in Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry.

8. Detailed analysis of the cost of the programme

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: modified ISO 6579 (2002) using MSRV planned to be carried out in the framework of official sampling (1279'0,1'2)-official samples of verifying the efficiency of disinfection (1279'0,034*2)	347	10	3470	yes
1.2. Cost of sampling	Test: serotyping (1279'0,1'2'0,81) planned to be carried out in the framework of official sampling costs of sampling of approx. 1279 flocks, 2.5x2 times during 2010 = 6395 sampling sessions	210	40	8400	yes
1.3. Other costs		6395	50	319750	no
2. Vaccination or treatment					
2.1. Purchase of vaccine/treatment					
2.2. Distribution costs					
2.3. Administering costs					
2.4. Control costs					
3. Slaughter and destruction					
3.1. Compensation of animals	Cost of the compensation of the positive animals, approx. 1300000 X 0.034 = 442000 animals Slaughtering of infected flocks can only be authorised when meat from these flocks is treated according to specific food safety legislation. Therefore, slaughter is not likely to be performed at regular contracted slaughterhouses, which makes transport costs much higher than usual, approx. 1300000 X 0.034 = 442000 animals, 12,5 kg/animal	442000	2,3	1016600	yes
3.2. Transport costs		5525000	0.04	221000	no
3.3. Destruction costs	Cost of the destruction approx. 1300000 X 0.034 = 442000 animals, 12,5 kg/animal	5525000	0.2	1105000	no

3.4. Loss in case of slaughtering	This loss is estimated to be of a large extent. However, losses due to the early slaughter of the flock is very hard to estimate.					
3. Slaughter and destruction						
4. Cleaning and disinfection	When taking into account the number of flocks (1279) and the infection rate (81.2%), an approximate number of 1040 flocks to be cleansed and disinfected can be estimated.	1040	500	520000	no	
5. Salaries (staff contracted for the programme only)	Cleansing and disinfection of an average flock depends on several factors, however an approximate amount of costs is given.				no	
6. Consumables and specific equipment					no	
7. Other costs					no	
TOTAL				3194220		
	Community funding requested			1028470	yes	



**Central Agricultural Office
Animal Health and Animal Welfare Directorate**

HUNGARY

Application

**for Community financing for the national control programme
of Hungary for**

**Salmonella spp.
in laying flocks of Gallus gallus**

for the year 2010.

30th of April, 2009

Part A

General requirements for the national salmonella control programmes

- (a) The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards laying flocks of *Gallus gallus* in the territory of Hungary. The programme covers the two zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*).
- (b) Protection against salmonellosis is mandatory pursuant to the relevant EU provision as of 1 January 2008. A Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the Decree was to ensure compliance with the changes in the Community legislation. The Decree sets the conditions of the obligatory control measures in breeding, laying flocks and voluntary (mandatory from 2009) measures in broiler flocks of *Gallus gallus* against specified *Salmonella* serotypes. The Decree 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 Council¹ indicating the relevant animal population and phases of production which sampling cover

rearing flocks — day-old chicks

— pullets two weeks before moving to laying phase or laying unit

laying flocks — every 15 weeks during the laying phase

More information about testing scheme: please see *Part B Chapter 7.2*

- (c) The Decree complies with the specific requirements laid down in Parts C, D and E of Annex II to Regulation (EC) No 2160/2003

(d) I General

- 1.1. The short summary referring to the occurrence of the salmonellosis [zoonotic salmonella] in Hungary with specific reference to the results obtained in the framework of monitoring in accordance with Article 4 of Directive 2003/99/EC of the European Parliament and of the Council², particularly highlighting the prevalence values of the salmonella serovars targeted in the salmonella control programmes: Please see *Part B Chapter 6*.
- 1.2. The structure and organization of the relevant competent authorities: Please see *Annex I*.
- 1.3. Laboratories involved in the programme must be accredited by the National Accreditation Body (NAT) and supervised by the National Salmonella Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate (formerly named: National Food Investigation Institute), Central Agricultural Office). The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for cooperation with the Community Reference Laboratory in Bilthoven (NL).
- 1.4. Methods used in the examination of the samples in the framework of the programme: Please see *Part B Chapter 7.3*
- 1.5. Official controls (including sampling schemes) at feed, flock and/or herd level: Please see *Part B Chapter 7.2.1*.

¹ OJ L 325, 12.12.2003, p. 1.

² OJ L 325, 12.12.2003, p. 31.

- 1.6. 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: Please see Part B Chapter 4.4.3. and Chapter 4.4.4.
- 1.7. National legislation relevant to the implementation of the programme, including national provisions concerning the activities set out in the programme: Please see Part B Chapter 4.4.7
- 1.8. Financial assistance provided to food and feed businesses in the context of the programme: Costs and benefits are calculated based on the previous year's data of the Poultry Product Board of Hungary. In the case of laying flocks costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleansing and disinfection) as well as financial losses due to decreased income for the poultry industry. Veterinary Act No. XI.VI. of 2008. on the food chain and its official control and Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses and Decree No. 148/2007. (XII.7.) on the prevention of certain animal diseases and the order of claiming subsidy and payment regarding their overcome in 2009 give the financial guarantee of the national programme.

2. Concerning food and feed businesses covered by the programme

2.1. The structure of the production

Laying flocks of *Gallus gallus* in Hungary can be structured according to hatcheries, nurseries, and table egg producing layer flocks, size, and the type of holdings.

2.2. The structure of the production of feed.

Feeding of poultry, including laying flocks of *Gallus gallus* is based on cereal products, mainly on corn, barley and wheat. Soybean and fishmeal is used as a source of protein.

Commercial feed producers are operating according to GMP standards. Laying flocks mainly use commercial pelleted feed, the technology of production of which includes heat treatment.

In Hungary, control of feedingstuffs is performed according to two main pieces of legislation:

Act No. CXIX. of 2001 on the production, marketing and use of feedingstuffs, and

Decree of the Ministry of Agriculture and Rural Development No. 43/2003. (IV. 26.) on the implementation of the above Act.

The Act lays down general principles of the control of feed, sets the competent authorities and allocates the tasks to these services.

According to Art. 4. (1) of the Act, a feed production plant may be authorised by the competent County Animal Health Station. The authorisation must be renewed at periods of a maximum of 5 years. Other authorities are also involved in the authorisation process.

The registration of the feed production units is done by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

Article 6. (1) states that the feedingstuffs produced may neither pose a direct health risk to livestock, nor an indirect risk to public health.

Therefore, the competent Directorate of Food Chain Safety and Animal Health of County Agricultural Office perform regular controls of the feed production plants, including the production, keeping, marketing, transport and use of feed produced. Controls also include compliance with feed hygiene rules, safety, composition, microbiological safety of feedingstuffs, as well as many other parameters such as the presence of prohibited substances, packaging, labelling etc.

In case of non-compliance with any of the parameters listed in the Act and the Decree, the competent County Animal Health Station may prohibit the production, keeping, marketing, transport, export, import or transport of the relevant feed. If such feed was already used, the Directorate of Food Chain Safety and Animal Health of County Agricultural Office has a duty to notify the county level public health authority.

The Decree gives detailed instruction to authorities and stakeholders on how to implement the Act. Annex 20 to the Decree sets out the maximum tolerable amount of *Salmonella* spp. in food and the related ISO standards. According to ISO 6579:2002, feedingstuffs must show zero *Salmonella* spp. / 25 grams.

In addition, the same Annex states that feedingstuffs must be free of any pathogens which may pose a direct risk to animal health and/or an indirect risk to public health.

2.3. Relevant guidelines

Hungary has relevant guidelines for good animal husbandry practices or other guidelines (mandatory or voluntary) on biosecurity measures defining the hygiene management at farms, the measures preventing incoming infections carried by animals, feed, drinking water, people working at farms, and about hygiene in transporting animals to and from farms. The guideline of Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis, the guideline about feed control, the guideline of animal transports and the Hungarian Poultry Product Board's guideline for good practice. All farms have to make an own biosecurity programme and all have to get checked by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

2.4. Routine veterinary supervision of farms:

Controls are planned annually by the Food Chain Safety Deputy President of Central Agricultural Office. Number of controls depends on risk estimate.

2.5. Registration of farms:

Registration of the breeding flocks by the veterinary authority is compulsory under Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code. Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System. For more information please see Part B Chapter 4.2.

2.6. Record-keeping at farms: All documents concerning to the programme must be kept for 3 years. The documentation have to contain all data about animals, transports, samples and medication.

2.7. Documents to accompany animals when dispatched.

Commercial poultry consignments are accompanied with animal health certificates according to Directive 90/529/EC. Consignments with national destinations are accompanied with animal health certificates according to Decree 41/1997. (V. 28.) FM appendices 8/a and 8/b.

In accordance with Paragraph 85. of Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code, the official veterinarian carries out a stock examination within 12 hours before transportation, and on the basis of the financing/allowance plan, fills out the animal health certification in the appendices 8/a. and 8/b., certifies the place of origin of the day-old animals, their circumstances free from epidemic, the name of the vaccine used, the time and method of the immunization. Because of the changes occurred since the publication of the legislation, this ordinance cannot be fulfilled in these days.

„Animals can only be transported when accompanied by a valid certification attested by the veterinarian responsible for treatment“ in accordance with point 4.2.1. point (Starting of poultry consignments) of the guide which was prepared for poultry hatcheries that are obliged to TIR registration, in accordance with point d) of Paragraph 6. of Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System (hereinafter: BIR regulation). In pursuance with point 4.2.1., „The hatchery starting the consignment has to fill in the Poultry movement form 2740, on the upper part of which the data of starting has to be given“.

The poultry animal health certificate laid down in the BIR regulation is not to replace the certificate 8/b., as the authority responsible for animal health takes part in issuing the latter only.

At the same time, even the certification 8/a. can not be replaced by the introduction of the BIR regulation, as certain data that have to be certified by the veterinarian in the certificate 8/a are not placed on the latter, for example immunizations carried out in the stock, diagnostical examinations and the results thereof.

In pursuance of the abovementioned regulations, all three certifications are required for the transport of the day-old poultry. The BIR certification is drawn up by the veterinarian responsible for treatment, while certifications 8/a. and 8/b. are filled in by the approved veterinarian, in accordance with the Governmental Decree No 113/2006. (V. 12.) on the competence and detailed rules of the activity of the approved veterinarian, with the exception of the case when the the approved veterinarian is not the treating veterinarian, because in those cases the certification 8/a. has to be filled in by the veterinarian of the hatchery.

As it can be seen from above, the current legislation of movement documentations doesn't seem to be unambiguous as regards several points.

For solving the problem, a working group was established. The working group is predestinated for revising the form and content of certificates for inland live animal transportation and as far as possible, for the harmonisation thereof.

2.8. Other relevant measures to ensure the traceability of animals. Please see Part A 2.7. and Part B Chapter 4.2. and Chapter 4.4.1.

Part B

1. Identification of the programme

Member State: **Hungary**

Disease: **Infection of animals with zoonotic *Salmonella* spp.**

Animal population covered by the programme: **Laying flocks of *Gallus gallus***

Year of implementation: **2010**

Reference of this document: **02.3/982/5/2008.**

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Date sent to the Commission: **30th of April, 2009**

2. Historical data on the epidemiological evolution of zoonotic salmonellosis specified in point 1

Monitoring and control programmes for *Salmonella* spp. (*S. Enteritidis* and *S. Typhimurium*) started in Hungary in 1997 by issuing official guidelines for the poultry sector. The goal of the project was to achieve similar targets as which were set by Council Directive 92/117/EEC. The collection of guidelines were ordered by the Ministry of Agriculture and were prepared by an expert group consisting of both Hungarian experts of various backgrounds (Hungarian Academy of Science, National Food Investigation Institute, Central Veterinary Institute and numerous practicing veterinarians) and experts of the Agri-Livestock Consultant Ltd (W. Edel and C. Wray). The work was financed by the PHARE programme of the European Union under project No. HU 9304-05-02. The programme covered the whole poultry sector in relation of *Gallus gallus*, breeding flocks, hatcheries, broiler flocks, table egg producing layer flocks, egg packaging and distribution establishments, poultry slaughterhouses, cutting plants as well as feed mills. The guidelines stated clearly that there is an urgent need for centralised official administrative measures in the form of a ministerial decree by the Minister of Agriculture.

The first decree was created in the year 2002: Decree 49/2002. (V. 24.) of the Minister of Agriculture and Rural Development on protection against salmonellosis and poultry typhus and on retaining officially free status, and was modified by the Decree 97/2003. (VIII. 19) Minister of Agriculture and Rural Development. A new Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis

(hereinafter: "Decree"). The aim of creating the new Decree was to ensure compliance with the changes in the Community legislation.

The Decree sets the conditions of the obligatory control measures in breeding, laying flocks and voluntary (mandatory from 2009) measures in broiler flocks of *Gallus gallus* against specified *Salmonella* serotypes. As a prerequisite, there is an obligation of the holdings keeping breeding flocks of *Gallus gallus* to be registered by the State Veterinary Service. Results of testing required by the Decree are also to be notified to the Directorate of Food Chain Safety and Animal Health of County Agricultural Office (formerly named: County Animal Health and Food Control Station).

The baseline study of the prevalence of *Salmonella* spp. in laying flocks of *Gallus gallus* carried out according to Commission Decision 2004/665/EC showed that infection of laying flocks for *Salmonella* Enteritidis and *Salmonella* Typhimurium was 33,54%, at the beginning of the program. The Community target which is set by Commission Regulation (EC) No 1168/2006 Art. 1 a) iii for this prevalence is 30% reduction per year in the infected flocks. This goal can only be achieved by a rigorous control programme using extensive professional and financial resources. At the beginning of the second year of the program, the infection of laying flocks for *Salmonella* Enteritidis and *Salmonella* Typhimurium was 8,65%.

3. Description of the submitted programme

The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards laying flocks of *Gallus gallus* in the territory of Hungary. The programme covers the two zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*).

Included in the programme are all laying flocks of *Gallus gallus* registered in the territory of Hungary.

Laboratories involved in the programme must be accredited by the National Accreditation Body (NAT) and supervised by the National *Salmonella* Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate, Central Agricultural Office). The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).

4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the programme:

First year: 2008

Last year: 2010

Control

Eradication

Testing

Testing

Slaughter of positive animals

Slaughter of positive animals

Killing of positive animals

Killing of positive animals

- Vaccination
- Treatment
- Disposal of products
- Extended slaughter or killing
- Disposal of products

Monitoring or surveillance

Other measures (*specify*):

- Flocks positive for *S. Typhimurium* or *S. Enteritidis* will be subject to movement control. As soon as the NRL confirms the infection, the flock shall be sent to isolated slaughter, latest at the end of the production period. Meat originating from such flocks may only be authorised for human consumption after meeting all relevant food safety requirements as regards of the Regulation (EC) No. 2160/2003, Annex II, Point E.
- Eggs originating from such flocks do not be marketed according to the Regulation (EC) No. 1237/2008, 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.
- After emptying the relevant holding operators are required to implement proper cleansing and disinfection. Effectiveness of the procedure is controlled by the competent regional animal health authority. Restocking is only authorised, when cleansing and disinfection is deemed to be satisfactory.

4.2. Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme:

All holdings must be registered at the district veterinary office. The official senior veterinary officer keeps and updates the record of holdings participating the programme. The official senior veterinary officer also declares the status of the holdings according to their actual serological status.

The 19 Directorates of Food Chain Safety and Animal Health of County Agricultural Offices coordinate and supervise the programme in their territory. They are required to annually report the actual status of the programme to the Animal Health and Animal Welfare Directorate of the Central Agricultural Office.

Name:	Central Agricultural Office Animal Health and Animal Welfare Directorate
Name in Hungarian:	Mezőgazdasági Szakigazgatási Hivatal Központ Állategészségügyi és Állatvédelmi Igazgatóság
Address:	1149 Budapest, Tábornok u. 2., Hungary
Tel.:	+36-1-460-6300
Fax:	+36-1-222-6065

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

The programme will be implemented on the whole territory of Hungary.

4.4. Measures implemented under the programme

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

Paragraph 3. (3) 1) of Decree 2/2008. (1. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis states that all holdings must be registered.

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

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

According to point 3. a) of Annex 3 to Decree 2/2008 (Protection in breeding flocks of *Gallus gallus*) (hereinafter: "Annex"): "If the salmonella test result is positive, the laboratory immediately informs the competent County Agricultural Office and the operator concerned, and simultaneously sends the isolated salmonella stock together with a sample accompanying document complying with the template issued by Central Agricultural Office to the national reference laboratory operated by the Food and Feed Safety Directorate of Central Agricultural Office for testing and serotyping purposes. The copy of the accompanying document must be kept by the testing laboratory for 3 years."

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

Having regard to Regulation (EC) No 1237/2007, and the Decree 2/2008 issued by the Ministry of Agriculture and Rural Development which follows systematically the Community requirements in Regulations (EC) No 2160/2003 and (EC) No 1003/2005, and entered into force on 07. January 2008, thereof,

According to the Annex:

"6. If during serotyping the national reference laboratory finds infection of a *Salmonella* serotype, which is subject to Regulation 1003/2005/EC the place of keeping of animals must be strictly cleaned and disinfected after the production cycle of the flock.

7. a) If during serotyping the national reference laboratory finds infection with *Salmonella* Enteritidis or *Salmonella* Typhimurium, in exceptional cases where the competent authority has reasons to suspect false negative results at the first official sampling at the holding, a secondary official confirmatory sampling may be performed, composed of faeces or birds (for the detection of salmonella in organs).

In exceptional cases where the competent authority has reasons to suspect false positive sampling performed at the initiative of the operator at the holding, follow-up official sampling may be performed.

When the secondary official confirmatory test has a negative result, the official senior veterinary officer lifts the movement restriction of the flock and of its products.

b) If the result of the repeated test is also positive, or if there is not any repeated test, Part C Annex II to Regulation 2160/2003/EC must be followed. The official senior veterinary officer orders movement restriction of the given flock and its products, and immediately withdraws the official salmonella free certificate. The official certificate of other flocks of the farm may be simultaneously withdrawn, if the isolation of the infected flock is not

fully guaranteed. In case of slaughtering the flock is sent to isolated slaughtering after the preliminary agreements with the slaughterhouse and the official senior veterinary officer supervising the slaughterhouse.

- c) After emptying the keeping place of the infected flock the operator must provide for the cleansing of the keeping place (the building, its facilities and equipment, side-rooms and passageways), and for its stringent disinfection in accordance with the relevant legal rule, as well as rodent and insect control. The rest of bedding must be disposed in accordance with the relevant legal rule. After taking the necessary steps the operator notifies the County Agricultural Office, which controls the efficiency of measures taken.
- d) Restocking into the airspace concerned is permitted by the County Agricultural Office only if the efficiency of disinfection is found satisfactory on the basis of the laboratory test.
- e) The presence of salmonella in the feed of the infected flock must be immediately tested in accordance with the relevant legal rule. The feed may be given only to the infected flock until the test is negative. If the feed is found infected it must be disposed in accordance with the relevant rule, and facilities used for its storage and transportation must be disinfected. A separate test must be made for the detection of salmonella at the feed operator supplying the feed if infection is detected.
- f) Within 30 days of the withdrawal of the official Salmonella free certificate, the operator revises its epidemic action plan, and submits it to the competent County Agricultural Office for re-approval. The revised plan must contain revision of the hygienic conditions, particularly of the disinfection procedures and the efficiency of rodent control, the test results relating to the potential causes of the infection, and also the list of measures considered necessary. The plan is evaluated by the County Agricultural Office within 30 days. If the plan is found unsatisfactory that has to be modified.
- g) If the operator hasn't possess an accepted plan within 90 days of the withdrawal of the official salmonella free certificate, the regional organ of the Central Agricultural Office considers the concerned flocks as which are not in the national control program, therefore declares them as having unknown animal health status. Eggs resulting from such stocks may be used for human consumption only after heat treatment in a heat treated egg product making plant - in accordance to Point 2 of Part D of Annex II to Regulation 2160/2003/EC."

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

See point 4.4.4.!

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:

See point 4.4.4.!

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

- Regulation (EC) No. 2160/2003. of the European Parliament and of the Council on the control of Salmonella and other food-borne zoonotic agents

- Commission Regulation No. 1168/2006 of 31. July 2006 implementing Regulation No. 2160/2003 as regards a Community target for reduction of prevalence of certain salmonella serotypes in laying flocks of Gallus gallus and amending Regulation (EC) No 1003/2005
-
- Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry
- Commission Regulation (EC) No. 1237/2008. 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.
- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis
- Decree No. 41/1997. (V. 28.) of the Minister of Agriculture on Code of Veterinary Rules

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

- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses in 2009

5. General description of the costs and benefits:

Costs and benefits are calculated based on estimation and previous year's data and information. In the case of laying flocks costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleaning and disinfection) as well as financial losses due to decreased income for the poultry industry.

A detailed description of the costs is listed under point 8.

Benefits in case of the successful programme include improved food safety which contributes largely to the achievement of public health goals of the Community.

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

As the control programme started by the 1st of January, 2008, evolution data are yet available only from the end of 2008.

TABLE I
INTERMEDIATE REPORT ON ZOONOTIC SALMONELLOSIS IN SAMPLED LAYING FLOCKS OF GALLUS GALLUS

Member State: **HUNGARY** Date: **30 May 2008** Reporting period from: **1 January 2008 to 30 March 2008**

Region (a1)	NUTS code	Type of flocks (a2)	Total number of flocks (a3)	Total number of animals under the programme	Number of flocks checked (a4)	Number of positive (a5) flocks (a6)			Number of flocks depopulated (a7)	Total number of animals slaughtered or destroyed (a8)	Quantity of eggs destroyed (number or kg) (a9)		Quantity of eggs channelled to egg products (number) (a10)	
						(a51)	(a52)	(a53)			(a91)	(a92)	(a101)	(a102)
Pest (including Budapest)	HU102	Laying hen flocks	110	352340	10	1	0	0	0	0	0	0	0	0
		Laying hen flocks	61	289460	32	0	0	1	0	0	0	0	0	0
Komárom-Esztergom	HU212	Laying hen flocks	71	698117	26	1	9	0	1	0	0	0	0	0
		Laying hen flocks	36	162086	12	0	0	0	0	0	0	0	0	0
Győr-Moson-Sopron	HU221	Laying hen flocks	26	229250	13	0	0	0	0	0	0	0	0	0
		Laying hen flocks	43	299014	16	0	0	0	0	0	0	0	0	0
Zala	HU223	Laying hen flocks	32	61788	9	0	0	0	1	0	0	0	0	0
		Laying hen flocks	22	19611	18	0	0	0	0	0	0	0	0	0

Somogy	HU:232	Laying hen flocks	8	2747	8	2747	5	0	0	0	0	0	0	0	0	0	0		
Tolna	HU:235	Laying hen flocks	11	11550	11	11550	3	0	0	0	0	0	0	0	0	0	0		
		Laying hen flocks	100	557114	100	557114	15	4	0	0	0	0	0	0	0	0	0	0	
Heves	HU:312	Laying hen flocks	30	82990	30	82990	2	0	0	0	0	0	0	0	0	0	0	0	
		Laying hen flocks	8	16190	8	16190	5	1	0	0	0	0	0	0	0	0	0	0	0
Hajdú-Bihar	HU:321	Laying hen flocks	47	313364	47	313364	15	2	0	1	0	0	0	0	0	0	0	0	
		Laying hen flocks	34	283970	34	283970	6	0	0	0	0	0	0	0	0	0	0	0	0
Szabolcs-Szatmár-Bereg	HU:323	Laying hen flocks	30	168068	30	168068	12	0	0	0	0	0	0	0	0	0	0	0	0
		Laying hen flocks	152	1162054	152	1162054	69	4	0	0	1	0	0	5000	0	0	0	0	0
Békés	HU:332	Laying hen flocks	25	289047	25	289047	19	0	0	0	0	0	0	0	0	0	0	0	0
		Laying hen flocks	20	37200	20	37200	2	1	0	0	0	0	0	0	0	0	0	1500	0
Total		Laying hen flocks	866	5035960	866	5035960	289	14	9	4	2	0	4120	0	0	0	1201	0	500

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

(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, 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.

SI Salmonella infantis
 SM Salmonella Mbandaka
 S.L. Salmonella Livingstone
 S.Thom. Salmonella Thomson
 S.O7 Salmonella O7 serov.
 S.B1. Salmonella Blockley
 S. Senf. Salmonella Senftenberger

TABLE II
REPORT ON ZOONOTIC SALMONELLOSIS IN SAMPLED LAYING HEN FLOCKS OF GALLUS GALLUS

Member State: **HUNGARY** Date: **30 April 2009** Reporting period from: **30 March 2008 to 31 December 2008**

Region (a1)	NUTS code	Type of flock(s) ^(a)	Total number of flocks ^(a)	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked ^(a)	Number of positive ^(a) flocks ^(a)			Number of flocks depopulated ^(a)	Total number of animals slaughtered or destroyed ^(a)	Quantity of eggs destroyed (number or kg) ^(a)		Quantity of eggs channelled to egg producers (number)				
								(a1)	(a2)	(a3)			(a4)	(a3)		(a4)			
Pest (including Budapest)	HU102	Laying hen flocks	110	352340	110	352340	110	2	0	5	0	1	24190	0	0	324	554		
Fejér	HU211	Laying hen flocks	61	289460	61	289460	61	7	0	0	2	29486	0	0	0	0	0		
Komárom-Esztergom	HU212	Laying hen flocks	71	698117	71	698117	71	1	3	0	0	0	0	0	0	0	0	0	
Veszprém	HU213	Laying hen flocks	36	162086	36	162086	36	4	0	0	0	0	0	0	0	0	0	0	
Győr-Moson-Sopron	HU221	Laying hen flocks	26	229250	26	229250	26	1	0	0	0	0	0	0	0	0	0	0	0
Vas	HU222	Laying hen flocks	43	299014	43	299014	43	3	1	1	0	1	27043	0	0	0	0	0	0
Zala	HU223	Laying hen flocks	32	61788	32	61788	32	0	0	0	0	0	0	0	0	0	0	0	0
Baranya	HU231	Laying hen flocks	22	19611	22	19611	22	1	0	1	0	0	0	0	0	0	0	0	0

Somogy	HU232	Laying hen flocks	8	2747	8	2747	8	0	1	0	0	1	209	0	0	0	0
Tolna	HU233	Laying hen flocks	11	11550	11	11550	11	0	0	1	0	0	0	0	0	0	0
Borsod-Abaúj-Zemplén	HU311	Laying hen flocks	100	557114	100	557114	100	7	1	1	0	0	0	0	0	0	0
Heves	HU312	Laying hen flocks	30	82990	30	82990	30	1	0	2	0	0	0	0	0	0	0
Nógrád	HU313	Laying hen flocks	8	16190	8	16190	8	2	0	0	0	1	3500	0	400	0	0
Hajdú-Bihar	HU321	Laying hen flocks	47	313364	47	313364	47	1	0	0	0	1	370	0	0	0	0
Jász-Nagykanizsa	HU322	Laying hen flocks	34	283970	34	283970	34	1	0	2	0	0	0	0	0	0	0
Szabolcs-Szatmár-Bereg	HU323	Laying hen flocks	30	168068	30	168068	30	0	0	0	0	0	0	0	0	0	0
Bács-Kiskun	HU331	Laying hen flocks	152	1162054	152	1162054	152	11	2	8	0	1	249	0	0	137	635
Békés	HU332	Laying hen flocks	25	289047	25	289047	25	0	0	0	0	0	0	0	0	0	0
Csongrád	HU333	Laying hen flocks	20	37200	20	37200	20	2	0	0	0	0	0	0	30600	0	0
Total			866	5035960	866	5035960	866	44	8	22	0	8	85047	0	30400	170	091

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

SI *Salmonella infantis*
 SM *Salmonella Mbandaka*
 S.L. *Salmonella Livingstone*
 S.Thom. *Salmonella Thomson*
 S.O7 *Salmonella O7 serov.*
 S.Bl. *Salmonella Blockley*
 S. Senf. *Salmonella Senftenberger*

7. Targets

7.1. Targets related to testing

7.1.1. Targets on diagnostic tests

Number and specification of tests

Mandatory testing will be performed in all laying flocks of *Gallus gallus* during their whole life span. A preliminary calculation was made on the approximate number of tests to be performed in the flocks. The number of tests calculated is based on the total of flocks containing more than 1000 hens (what is 886 at the moment according to the register) and the testing scheme as provided for in the Annex to Commission Regulation No. 1168/2006 of 31. July 2006 implementing Regulation No. 2160/2003 as regards a Community target for reduction of prevalence of certain salmonella serotypes in laying flocks of *Gallus gallus* and amending Regulation (EC) No 1003/2005.

The Annex of the above mentioned Regulation requires all relevant laying flocks to be tested two times during the rearing period and further testing on every fifteenth week during the whole production period.

Laying flocks are kept usually until the age of 72 weeks. The production period begins when the flock is 22 weeks of age. In some cases the production lasts then until the end of the 84th weeks of the life, however when calculating the number of tests to be performed in this programme, this possibility could not be taken into account.

In Hungary, laying flocks are typically kept in cages which makes the taking samples from the houses the most effective way of detecting possible infection (see sampling protocol below).

Using the above numbers and the testing scheme specified in the Regulation, each laying flock will be sampled and tested approximately 7 times during the year. During each sampling time two boot swab samples will be taken and sent into the laboratory, and pooled into one sample.

Given that in Hungary there are 886 laying flocks (~ 5000000 animals), and the free range and alternative flocks number about 225. The total number of samples to be taken in the frame of routine and official sampling is $(886-225) \times 7 \times 2 = 9254$ samples, because in cage flocks, 2×150 grams of naturally pooled faeces shall be taken, and $225 \times 7 = 1575$, because the two boot swabs will be pooled into one laboratory sample. Summary there will be 10830 laboratory isolates are expected to be tested for the detection of *Salmonella* spp. The number of official laboratory isolates will be nearly 1780 $((661 \times 2) + (225 \times 2))$.

In addition, when a flock is tested positive, some cases confirmatory sampling will take place and additional birds selected from the flock. Based on the latest data, approximately 8,65 % of the flocks are infected with one or more of the 2 most relevant *Salmonella* serotypes and summary there were 11,66% positive flocks (about one hundred flocks), confirmatory test numbers will be nearly 40 (20% of the infected flocks, 2 isolates/samples- boot swabs, birds, faeces materials, etc.). The positive samples number was 196, in 2008. Summary nearly 11000 $(10830+40)$ laboratory isolates are expected to be tested for the detection of *Salmonella* spp.

Serotyping will be performed from each positive isolate. Positivity is expected to be detected in 11,66% of the flocks, we expected nearly 200-300 positive sample/year. in 2008 were ~200 sample for serotyping.

However, an exact number of tests which will be performed is not possible, because the time when the flock becomes infected can not be predicted.

7.2. Testing scheme

Testing scheme as provided for in the Annex to Commission Regulation No. 1168/2006 of 31. July 2006 implementing Regulation No. 2160/2003 as regards a Community target for reduction of prevalence of certain salmonella serotypes in laying flocks of *Gallus gallus* and amending Regulation (EC) No 1003/2005 will be used.

Details of the testing scheme are the following:

1. Sampling frame

The sampling frame shall cover all flocks of adult laying hens of *Gallus gallus* (laying flocks) referred to in Article 1 of Regulation (EC) No 2160/2003.

2. Monitoring in laying flocks

2.1. Frequency and status of sampling

Laying flocks shall be sampled at the initiative of the food business operator (operator) and by the competent Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

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.

Sampling by the competent authority shall take place at least:

- (a) in one flock per year per holding comprising at least 1 000 birds;
- (b) at the age of 24 ± 2 weeks in laying flocks housed in buildings where salmonella was detected in the preceding flock;
- (c) in any case of suspicion of *Salmonella* Enteritidis or *Salmonella* Typhimurium infection, as a result of the epidemiological investigation of food-borne outbreaks in accordance with Article 8 of Directive 2003/99/EC of the European Parliament and of the Council;
- (d) in all other laying flocks on the holding in case *Salmonella* Enteritidis or *Salmonella* Typhimurium are detected in one laying flock on the holding;
- (e) in cases where the competent Directorate of Food Chain Safety and Animal Health of County Agricultural Office considers it appropriate.

A sampling carried out by the competent authority may replace one sampling at the initiative of the operator.

2.2. Sampling protocol

In order to maximise sensitivity of sampling, both faecal material and the environment shall be sampled at least as provided for in (a) and (b):

- (a) In cage flocks, 2 × 150 grams of naturally pooled faeces shall be taken from all belts or scrapers in the house after running the manure removal system; however, in the case of step cage houses without scrapers or belts 2 × 150 grams of mixed fresh faeces must be collected from 60 different places beneath the cages in the dropping pits.
- (b) In barn or free-range houses, two pairs of boot swabs or socks be taken, without changing overboots between boot swabs.

In the case of sampling by the competent authority, 250 ml containing at least 100 gram of dust shall be collected from prolific sources of dust throughout the house. If there is not sufficient dust, an additional sample of 150 grams naturally pooled faeces or an additional pair of boot swabs or socks shall be taken.

In the case of sampling referred to in point 2.1(b), (c) and (d), the competent authority shall satisfy itself by conduction further tests as appropriate that the results of examinations for salmonella in birds are not affected by the use of antimicrobials in the flocks.

Where the presence of Salmonella Enteritidis and Salmonella Typhimurium is not detected but antimicrobials or bacterial growth inhibitory effect are it shall be accounted for as an infected laying flock for the purpose of the Community target referred to in Article 1 (2) of Commission Regulation 1168/2006/E.C.

3. Examination of the samples

3.1. Transport and preparation of the samples

Samples shall be sent by express mail or courier to the laboratories referred to in Article 11 of Regulation (EC) No 2160/2003, on the day of collection. At the laboratory, samples shall be kept refrigerated until examination, which shall be carried out within 48 hours following receipt.

3.1.1. Boot swab samples

- (a) The two pairs of boot swabs ('or socks') shall be carefully unpacked to avoid dislodging adherent faecal material, pooled and placed in 225 ml Buffered Peptone Water (BPW) which has been pre-warmed to room temperature;
- (b) The sample shall be swirled to fully saturate it and culture shall be continued by using the detection method in 3.2.

3.1.2. Other faecal material and dust samples

- (a) The faeces samples shall be pooled and thoroughly mixed and a 25 gram sub-sample shall be collected for culture.
- (b) The 25 gram sub-sample shall be added to 225 ml of BPW which has been pre-warmed to room temperature.
- (c) Culture of the sample shall be continued by using the detection method in 3.2.

If ISO standards on the preparation of faeces for the detection of salmonella are agreed on, they shall be applied and replace the above provisions on sampling preparation.

3.2. Detection method

The method recommended by the Community Reference Laboratory (CRL) for Salmonella in Bilthoven, the Netherlands, for detection shall be used. This method is described in the current version of draft Annex D of ISO 6579 (2002): 'Detection of Salmonella spp. in animal faeces and in samples of the primary production stage'. In this method, a semi-solid medium (modified semi-solid Rappaport-Vassiladis medium, MSR/V) is used as the single selective enrichment medium.

3.3. Serotyping

At least one isolate from each positive sample shall be serotyped, following the Kaufmann-White scheme.

3.4. Alternative methods

With regard to samples taken at the initiative of the operator, the methods of analysis provided for in Article 11 of Regulation (EC) No 882/2004 (1), may be used instead of the methods for the preparation of samples, detection methods and serotyping provided for in point 3 of this Annex, if validated in accordance with EN/ISO 16140/2003.

3.5. Storage of strains

At least the strains isolated from samples collected by the competent authority, shall be stored for future phage typing or anti-microbial susceptibility testing, using the normal methods for culture collection, which must ensure integrity of the strains for a minimum of two years.

4. Results and reporting

A laying flock shall be considered positive for the purpose of verifying the achievement of the Community target, where the presence of Salmonella Enteritidis and Salmonella Typhimurium (other than vaccine strains) was detected in one or more samples in the laying flock. Positive laying flocks shall be counted only once, irrespective of the number of sampling and testing operations and only be reported in the first year of detection.

Reporting shall include:

- (a) the total number of flocks of laying hens tested and the number of laying flocks tested for each status of sampling referred to in point 2.1;
- (b) the total number of infected flocks and the results of the testing for each status of sampling referred to in point 2.1;
- (c) explanations on the results, in particular concerning exceptional cases.

The results referred to in this point and any additional relevant information shall be reported as part of the report on trends and sources provided for in Article 9(1) of Directive 2003/99/EC.

7.3. Targets on vaccination or treatment

According to Commission Regulation (EC) No 1177/2006 vaccination is obligatory in laying flocks of *Gallus gallus*. The rules on using vaccination and treatment are laid down in Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry.

8. Detailed analysis of the cost of the programme

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: modified ISO 6579 (2002) using MSRV planned to be carried out in the framework of official sampling (886*1*3)+ official samples of verifying the efficiency of disinfection (866*0,1166*2)	2800	10	28000	yes
1.2. Cost of sampling	Test: serotyping planned to be carried out in the framework of official sampling(866*1*0,1166*3)	300	40	12000	yes
1.3. Other costs	costs of sampling of approx. 386 flocks, 7 times during 2010 = 6202 sample	6202	50	310100	no
2. Vaccination or treatment					
2.1. Purchase of vaccine/treatment	Cost of the vaccine of approx. 5000000 animals two times	10,000,000	0.1	100000	yes
2.2. Distribution costs	Cost of the distribution (approx. 5000000 animals)	5000000	0.05	250000	no
2.3. Administering costs	Cost of the administration (approx. 5000000 animals)	5000000	0.1	500000	no
2.4. Control costs					
3. Slaughter and destruction					

3.1. Compensation of animals	Cost of the compensation of the positive animals, approx. $5000000 \times 0.0865 = 432500$ animals	432500	3	1297500	yes
3.2. Transport costs	Slaughtering of infected flocks can only be authorised when meat from these flocks is located according to specific food safety legislation. Therefore, slaughter is not likely to be performed at regular contracted slaughterhouses, which makes transport costs much higher than usual, approx. $5000000 \times 0.0865 = 432500$ animals, 2 kg/animal	865000	0.04	34600	no
3.3. Destruction costs	Cost of the destruction approx. $5000000 \times 0.0865 = 432500$ animals, 2 kg/animal	865000	0.2	173000	no
3.4. Loss in case of slaughtering	This loss is estimated to be of a large extent. However, the losses due to the early slaughter of the flock and the decreased income due to eggs, which could not be produced, are very hard to estimate.				
3.5 Costs from treatment of products (milk, eggs, hatching eggs, etc)		3025000	0,08	242000	no
4. Cleaning and disinfection	When taking into account the number of flocks (886) and the infection rate (11,66%), an approximate number of ~ 100 flocks to be cleansed and disinfected can be estimated.	100	500	50000	no
5. Salaries (staff contracted for the programme only)	Cleansing and disinfection of an average flock depends on several factors, however an approximate amount of costs is given.				
6. Consumables and specific equipment					
7. Other costs					

TOTAL		2997200	
Community funding requested		1437500	yes



**Central Agricultural Office
Animal Health and Animal Welfare Directorate**

HUNGARY

Application

**for Community financing for the national control programme
of Hungary for**

**Salmonella spp.
in broiler flocks of Gallus gallus**

for the year 2010.

30th of April, 2009

Part A

General requirements for the national salmonella control programmes

- (a) The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards broiler flocks of *Gallus gallus* in the territory of Hungary. The programme covers the two zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*).
- (b) Protection against salmonellosis is mandatory pursuant to the relevant EU provision as of 1 January 2009. A Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (1. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the Decree was to ensure compliance with the changes in the Community legislation. The Decree sets the conditions of the obligatory control measures in breeding, laying flocks and in broiler flocks of *Gallus gallus* against specified *Salmonella* serotypes. The Decree 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 Council¹ indicating the relevant animal population and phases of production which sampling cover
- day-old chicks (national legislation)
 - birds leaving for slaughter

More information about testing scheme: please see *Part B Chapter 7.2*

- (c) The Decree complies with the specific requirements laid down in Parts C, D and E of Annex II to Regulation (EC) No 2160/2003

(d) 1 General

- 1.1. The short summary referring to the occurrence of the salmonellosis [zoonotic salmonella] in Hungary with specific reference to the results obtained in the framework of monitoring in accordance with Article 4 of Directive 2003/99/EC of the European Parliament and of the Council², particularly highlighting the prevalence values of the salmonella serovars targeted in the salmonella control programmes: Please see Part B Chapter 3.
- 1.2. The structure and organization of the relevant competent authorities: Please see Annex I.
- 1.3. Laboratories involved in the programme must be accredited by the National Accreditation Body (NAI) and supervised by the National Salmonella Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate (formerly named: National Food Investigation Institute), Central Agricultural Office). The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).
- 1.4. Methods used in the examination of the samples in the framework of the programme: Please see Part B Chapter 7.3
- 1.5. Official controls (including sampling schemes) at feed, flock and/or herd level: Please see Part B Chapter 7.2.1.
- 1.6. 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: Please see Part B Chapter 4.4.3. and Chapter 4.4.4.

¹ OJ L 325, 12.12.2003, p. 1.

² OJ L 325, 12.12.2003, p. 31.

1.7. National legislation relevant to the implementation of the programme, including national provisions concerning the activities set out in the programme: Please see Part B Chapter 4.4.7

1.8. Financial assistance provided to food and feed businesses in the context of the programme: Costs and benefits are calculated based on the previous year's data of the Poultry Product Board of Hungary. In the case of broiler flocks costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleansing and disinfection) as well as financial losses due to decreased income for the poultry industry.

Veterinary Act No. XLVI. of 2008. on the food chain and its official control and Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses and Decree No. 148/2007. (XII.7.) on the prevention of certain animal diseases and the order of claiming subsidy and payment regarding their overcome in 2009 give the financial guarantee of the national programme.

2. Concerning food and feed businesses covered by the programme

2.1. The structure of the production

Broiler flocks are kept usually until the age of 38-42 days (depending on the technology). As cleansing take place after every flock, each year 6 flocks can be reared in a certain airspace in average. The Regulation requires all relevant broiler flocks to be tested 3 weeks before leaving for the slaughterhouse. The National legislation requires all relevant broiler flocks to be tested as day old chicks too.

2.2. The structure of the production of feed.

Feeding of poultry, including broiler flocks of *Gallus gallus* is based on cereal products, mainly on corn, barley and wheat. Soybean and fishmeal is used as a source of protein.

Commercial feed producers are operating according to GMP standards. Broiler flocks mainly use commercial pelleted feed, the technology of production of which includes heat treatment.

In Hungary, control of feedingstuffs is performed according to two main piece of legislation:

Act No. CXIX. of 2001 on the production, marketing and use of feedingstuffs, and

Decree of the Ministry of Agriculture and Rural Development No. 43/2003. (IV. 26.) on the implementation of the above Act.

The Act lays down general principles of the control of feed, sets the competent authorities and allocates the tasks to these services.

According to Art. 4. (1) of the Act, a feed production plant may be authorised by the competent County Animal Health Station. The authorisation must be renewed at periods of a maximum of 5 years. Other authorities are also involved in the authorisation process.

The registration of the feed production units is done by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

Article 6. (1) states that the feedingstuffs produced may neither pose a direct health risk to livestock, nor an indirect risk to public health.

Therefore, the competent Directorate of Food Chain Safety and Animal Health of County Agricultural Office perform regular controls of the feed production plants, including the production, keeping, marketing, transport and use of feed produced. Controls also include compliance with feed hygiene rules, safety, composition, microbiological safety of feedingstuffs, as well as many other parameters such as the presence of prohibited substances, packaging, labelling etc.

In case of non-compliance with any of the parameters listed in the Act and the Decree, the competent County Animal Health Station may prohibit the production, keeping, marketing, transport, export, import or transport of the relevant feed. If such feed was already used, the Directorate of Food Chain Safety and Animal Health of County Agricultural Office has a duty to notify the county level public health authority.

The Decree gives detailed instruction to authorities and stakeholders on how to implement the Act. Annex 20 to the Decree sets out the maximum tolerable amount of *Salmonella* spp. in food and the related ISO standards. According to ISO 6579:2002, feedingstuffs must show zero *Salmonella* spp. / 25 grams.

In addition, the same Annex states that feedingstuffs must be free of any pathogens which may pose a direct risk to animal health and/or an indirect risk to public health.

2.3. Relevant guidelines

Hungary has relevant guidelines for good animal husbandry practices or other guidelines (mandatory or voluntary) on biosecurity measures defining the hygiene management at farms, the measures preventing incoming infections carried by animals, feed, drinking water, people working at farms, and about hygiene in transporting animals to and from farms. The guideline of Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis, the guideline about feed control, the guideline of animal transports and the Hungarian Poultry Product Board's guideline for good practice. All farms have to made an own

biosecurity programme and all have to get checked by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

2.4. Routine veterinary supervision of farms:

Controls are planned annually by the Food Chain Safety Deputy President of Central Agricultural Office. Number of controls depends on risk estimate.

2.5. Registration of farms:

Registration of the breeding flocks by the veterinary authority is compulsory under Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code. Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System. For more information please see Part B Chapter 4.2.

2.6. Record-keeping at farms: All documents concerning to the programme must be kept for 3 years. The documentation have to contain all data about animals, transports, samples and medication

2.7. Documents to accompany animals when dispatched.

Commercial poultry consignments are accompanied with animal health certificates according to Directive 90/529/EC. Consignments with national destinations are accompanied with animal health certificates according to Decree 41/1997. (V. 28.) FM appendices 8/a and 8/b.

In accordance with Paragraph 85. of Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code, the official veterinarian carries out a stock examination within 12 hours before transportation, and on the basis of the financing/allowance plan. fills out the animal health certification in the appendices 8/a. and 8/b., certifies the place of origin of the day-old animals, their circumstances free from epidemic, the name of the vaccine used, the time and method of the immunization. Because of the changes occurred since the publication of the legislation, this ordinance cannot be fulfilled in these days.

„Animals can only be transported when accompanied by a valid certification attested by the veterinarian responsible for treatment” in accordance with point 4.2.1. point (Starting of poultry consignments) of the guide which was prepared for poultry hatcheries that are obliged to TIR registration, in accordance with point d) of Paragraph 6. of Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System (hereinafter: BIR regulation). In pursuance with point 4.2.1., „The hatchery starting the consignment has to fill in the Poultry movement form 2740. on the upper part of which the data of starting has to be given”.

The poultry animal health certificate laid down in the BIR regulation is not to replace the certificate 8/b., as the authority responsible for animal health takes part in issuing the latter only.

At the same time, even the certification 8/a. can not be replaced by the introduction of the BIR regulation, as certain data that have to be certified by the veterinarian in the certificate 8/a are not placed on the latter, for example immunizations carried out in the stock, diagnostical examinations and the results thereof.

In pursuance of the abovementioned regulations, all three certifications are required for the transport of the day-old poultry. The BIR certification is drawn up by the veterinarian responsible for

treatment, while certifications 8/a. and 8/b. are filled in by the approved veterinarian, in accordance with the Governmental Decree No 113/2006. (V. 12.) on the competence and detailed rules of the activity of the approved veterinarian, with the exception of the case when the the approved veterinarian is not the treating veterinarian, because in those cases the certification 8/a. has to be filled in by the veterinarian of the hatchery.

As it can be seen from above, the current legislation of movement documentations doesn't seem to be unambiguous as regards several points.

For solving the problem, a working group was established. The working group is predestinated for revising the form and content of certificates for inland live animal transportation and as far as possible, for the harmonisation thereof.

2.8. Other relevant measures to ensure the traceability of animals. Please see Part A 2.7. and Part B Chapter 4.2. and Chapter 4.4.1.

Part B

1. Identification of the programme

Member State: **Hungary**

Disease: **Infection of animals with zoonotic *Salmonella* spp.**

Animal population covered by the programme: **Broiler flocks of *Gallus gallus***

Year of implementation: **2010**

Reference of this document: **02.3/982/5/2008.**

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Date sent to the Commission: **30th of April, 2009**

2. Historical data on the epidemiological evolution of zoonotic salmonellosis specified in point 1

Monitoring and control programmes for *Salmonella* spp. (*S. Enteritidis* and *S. Typhimurium*) started in Hungary in 1997 by issuing official guidelines for the poultry sector. The goal of the project was to achieve similar targets as which were set by Council Directive 92/117/EEC. The collection of guidelines were ordered by the Ministry of Agriculture and were prepared by an expert group consisting of both Hungarian experts of various backgrounds (Hungarian Academy of Science, National Food Investigation Institute, Central Veterinary Institute and numerous practicing veterinarians) and experts of the Agri-Livestock Consultant Ltd (W. Edel and C. Wray). The work was financed by the PHARE programme of the European Union under project No. HU 9304-05-02. The programme covered the whole poultry sector in relation of *Gallus gallus*, breeding flocks, hatcheries, broiler flocks, table egg producing layer flocks, egg packaging and distribution establishments, poultry slaughterhouses, cutting plants as well as feed mills. The guidelines stated clearly that there is an urgent need for centralised official administrative measures in the form of a ministerial decree by the Minister of Agriculture.

The first decree was created in the year 2002: Decree 49/2002. (V. 24.) of the Minister of Agriculture and Rural Development on protection against salmonellosis and poultry typhus and on retaining officially free status, and was modified by the Decree 97/2003. (VIII. 19) Minister of Agriculture and Rural Development. A new Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (I. 4.) of the Minister of

Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the new Decree was to ensure compliance with the changes in the Community legislation.

The Decree sets the conditions of the obligatory control measures in breeding, laying flocks and voluntary (mandatory from 2009) measures in broiler flocks of *Gallus gallus* against specified *Salmonella* serotypes. As a prerequisite, there is an obligation of the holdings keeping broiler flocks of *Gallus gallus* to be registered by the State Veterinary Service. Results of testing required by the Decree are also to be notified to the Directorates of Food Chain Safety and Animal Health of County Agricultural Office (formerly named: County Animal Health and Food Control Station).

The baseline study of the prevalence of *Salmonella* spp. in broiler flocks of *Gallus gallus* carried out according to Commission Decision 2005/636/EC shows that infection of broiler flocks for *Salmonella* Enteritidis and *Salmonella* Typhimurium is 8,1%. According to monitoring tests carried out infection with *Salmonella* Infantis is 58,3% (87% of the *Salmonella* infection is *Salmonella* Infantis). The Community target which is set by Commission Regulation No 646/2007 (EC) Art. (1) of flocks of broilers remaining positive of *Salmonella* Enteritidis and *Salmonella* Typhimurium is 1% or less by 31 December 2011. This goal can only be achieved by a rigorous control programme using extensive professional and financial resources.

3. Description of the submitted programme

The main objective of the programme is to comply with existing Community legislation to achieve Community prevalence targets within the defined time period available as regards broiler flocks of *Gallus gallus* in the territory of Hungary. The European legislation set targets of *Salmonella* Enteritidis and *Salmonella* Typhimurium (according to Commission Regulation No 646/2007 (EC), No 584/2008 (EC)), with effect from 84 months after entry into force of Regulation (EC) No 2160/2003 of the European Parliament and of the Council, fresh poultry meat from broiler flocks of *Gallus gallus* may not be placed on the market for human consumption unless absence of *Salmonella* in 25 grams. As *Salmonella* Infantis is the most common *Salmonella* in broilers in Hungary, as a national target, national control programme shall cover *Salmonella* Infantis in broilers as well.

All broiler flocks of *Gallus gallus* included in the programme are registered in the territory of Hungary.

Laboratories involved in the programme must be accredited by the National Accreditation Body (NAI) and supervised by the National *Salmonella* Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate, Central Agricultural Office) The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).

4. Measures of the submitted programme

4.1. Summary of measures under the programme of the broiler flocks

Duration of the programme:

First year: 2009

Last year: 2011

Control

Control/Eradication

Testing

Testing

Slaughter of positive animals

Slaughter of positive animals

Killing of positive animals

Killing of positive animals

Vaccination

Extended slaughter or killing

Treatment

Disposal of products

Disposal of products

Monitoring or surveillance

Other measures (*specify*): Because many times we can not find any slaughterhouse for slaughter the positive flocks, in that cases we need to use the "killing of positive animals".

4.2. Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme:

All holdings must be registered at the district veterinary office. The official senior veterinary officer keeps and updates the record of holdings participating the programme. The official senior veterinary officer also declares the status of the holdings according to their actual serological status.

The 19 Directorates of Food Chain Safety and Animal Health of County Agricultural Offices coordinate and supervise the programme in their territory. They are required to annually report the actual status of the programme to the Animal Health and Animal Welfare Directorate of the Central Agricultural Office.

Name: Central Agricultural Office
Animal Health and Animal Welfare Directorate
Name in Hungarian: Mezőgazdasági Szakigazgatási Hivatal Központ
Állategészségügyi és Állatvédelmi Igazgatóság
Address: 1149 Budapest, Tábormok u. 2., Hungary
Tel.: +36-1-460-6300
Fax: +36-1-222-6065

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

The programme will be implemented on the whole territory of Hungary.

4.4. Measures implemented under the programme

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

Paragraph 3. (3) 1) of Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis states that all holdings must be registered.

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

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

According to the National Control Program:

"If the salmonella test result is positive, the laboratory immediately informs the competent County Agricultural Office and the operator concerned, and simultaneously sends the isolated salmonella stock together with a sample accompanying document complying with the template issued by Central Agricultural Office to the national reference laboratory operated by the Food and Food Safety Directorate of Central Agricultural Office for testing and serotyping purposes. The copy of the accompanying document must be kept by the testing laboratory for 3 years."

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

By 1 January 2009, Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis amended to cover all of the measures to be taken in case of a positive result in broiler flocks. It includes the measures which are now detailed in the national control program as follows:

If during serotyping the national reference laboratory finds infection with *Salmonella* Enteritidis, *Salmonella* Typhimurium, and the flock concerned has an official salmonella free certificate, the official senior veterinary officer immediately withdraws it. The official certificate of the other flocks of the farm may be simultaneously withdrawn, if the isolation of the infected flock is not fully guaranteed.

If during serotyping the national reference laboratory finds infection with *Salmonella* Enteritidis or *Salmonella* Typhimurium, in exceptional cases where the competent authority has reasons to suspect false negative results at the first official sampling at the holding, a secondary official confirmatory sampling may be performed, composed of faeces or birds (for the detection of salmonella in organs).

In exceptional cases where the competent authority has reasons to suspect false positive sampling performed at the initiative of the operator at the holding, follow-up official sampling may be performed.

When the secondary official confirmatory test has a negative result, the official senior veterinary officer lifts the movement restriction of the flock and of its products.

If the result of the repeated test is also positive, or if there is not any repeated test, Part C Annex II to Regulation 2160/2003/EC must be followed. The official senior veterinary officer orders movement restriction of the given flock and its products, and immediately withdraws the official salmonella free certificate. The official certificate of other flocks of the farm may be simultaneously withdrawn, if the isolation of the infected flock is not fully guaranteed. In case of slaughtering the flock is sent to isolated slaughtering after the preliminary agreements with the slaughterhouse and the official senior veterinary officer supervising the slaughterhouse.

Processing procedures following the isolated slaughtering must be separated from the processing and handling of other basic materials of animal origin until salmonella is killed in an efficient and confirmed way, and these must be preliminary consulted with the competent official senior veterinary officer. Wording "Originating from a salmonella positive flock" must be legibly and inerasably indicated on each packaging unit of the food basic material deriving from the isolated slaughter and processing, directly near the identification code and the tracking sign used within the establishment, as well as on the accompanying sales document. Raw material deriving from a positive flock may be used only for preparation of foods and the production process steps shall guarantee the end-product food to be free of salmonella. This must be confirmed with laboratory microbiological test results before marketing of each such food item into retail trade, and the competent supervising official veterinarian must be notified therefore.

After emptying the keeping place of the infected flock cleansing and stringent disinfection must take place as well as rodent and insect control in accordance with legislation in force. The remaining bedding must be disposed in accordance with the relevant legal rule.

After taking these necessary steps, laboratory tests shall be carried out to control the efficiency of measures taken.

Restocking into the airspace concerned is permitted by the competent County Agricultural Office only if the efficiency of disinfection is found satisfactory on the basis of the laboratory test.

The presence of salmonella species in the feed of the infected flock must be immediately tested in accordance with the relevant legal rule. The feed may be given only to the infected flock until the test is closed with a negative result. If the feed is found infected it must be disposed in accordance with the relevant legal rule, and facilities used for its storage and transportation must be disinfected. A separate test must be made for the detection of salmonella at the feed operator supplying the feed if infection is found.

The operator revises the contingency plan within 30 days from receiving the positive test result and submits it to the competent County Agricultural Office for re-approval. The contingency plan must contain revision of the hygienic conditions, particularly of the disinfection procedures and the efficiency of rodent control, the test results relating to the potential causes of the infection, and also the list of measures considered necessary. The plan is evaluated by the competent County Agricultural Office. In case the plan is found unsatisfactory by County Agricultural Office, it calls upon the operator to modify it.

If the operator does not have an approved plan within 30 days from the warning, the competent County Agricultural Office considers the flock as if it does not take part in the program for protection against salmonellosis. Such flocks is not able to get officially salmonella free certificate."

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

See point 4.4.4.!

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:

See point 4.4.4.!

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

- Regulation (EC) No. 2160/2003, of the European Parliament and of the Council on the control of Salmonella and other food-borne zoonotic agents
- Commission Regulation (EC) No 646/2007 of 12 June 2007 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of Salmonella Enteritidis and Salmonella Typhimurium in broilers and repealing Regulation (EC) No 1091/2005
- Commission Regulation (EC) No 584/2008 of 20 June 2008 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of Salmonella Enteritidis and Salmonella Typhimurium in turkeys
- Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry
- Veterinary Act No. XLVI. of 2008. on the food chain and its official control Decree No. 2/2008. (I. 4.) of Minister of Agriculture and Rural Development
- Decree No. 41/1997. (V. 28.) of Minister of Agriculture (Code of veterinary rules)

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

- Veterinary Act No. XLVI. of 2008. on the food chain and its official control Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses in 2009

5. General description of the costs and benefits:

Costs are calculated based on estimation and information of the Poultry Product Board of Hungary. In case of broiler flocks, costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including testing on initiative of both the operator and the veterinary authority), the measures to be applied in the case of infection with S. Enteritidis and S. Typhimurium (slaughter or killing of the flock, condemnation, transportation, cleaning and disinfection) as well as financial losses due to decreased income for the poultry industry.

A detailed description of the costs is listed under point 8.

Benefits in case of the successful programme include improved food safety which contributes largely to the achievement of public health goals of the Community.

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

As the control programme started by 1st of January, 2009, evolution data are not yet available.

7. Targets

7.1. Targets related to testing

7.1.1. Targets on diagnostic tests

Number and specification of tests

Mandatory testing will be performed in all registered broiler flocks of *Gallus gallus*. A preliminary calculation was made on the approximate number of tests to be performed in the flocks. The number of tests calculated is based on the total of flocks containing more than 2000 hens (1822 flocks at the moment according to the national register) and the testing scheme as provided for in Commission Regulation No 584/2008 of 20 June 2008 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of *Salmonella enteritidis* and *Salmonella typhimurium* in turkeys, Commission Regulation No 646/2007 of 12 June 2007 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards Community target for the reduction of the prevalence of *Salmonella Enteritidis* and *Salmonella Typhimurium* in broilers and repealing Regulation (EC) No 1091/2005.

Broiler flocks are kept usually until the age of 38-42 days (depending on the technology). As cleansing take place after every flock, each year 6 flocks can be reared in a certain airspace in average. The Regulation requires all relevant broiler flocks to be tested 3 weeks before leaving for the slaughterhouse. The National legislation requires all relevant broiler flocks to be tested as day old chicks too.

Given that in Hungary are 1822 broiler flocks (~120000000 animals) the total number of samples to be taken is $1822 \times 6 \times 2 = 21864$ samples. (As according to Commission Regulation (EC) No 646/2007 at least two pairs of boot/sock swabs shall be taken and all boot/sock swabs must be pooled into one sample.) Official samples number will be ~ 2190.

Based on the baseline study data, 8.1% of the flocks are infected with *Salmonella Enteritidis* or *Salmonella Typhimurium*, 66% of the flocks are infected with any *Salmonella* serotypes.

Summarily, 21864 samples are expected to be tested for the detection of *Salmonella* spp.

Scrotyping will be performed from each positive isolate. Positivity is expected to be detected in 66% of flocks ($1822 \times 0.66 = 1202,5$), summary 1203 positive isolate will need scrotyping in one production cycle, $1203 \times 3 = 3609$ per year.

However, an exact number of tests, which will be performed, is not possible. because not every operator rears the same amount of flocks every year and we have not got any data about the reinfection of the flocks..

Approximately 120,000,000 broilers are slaughtered in Hungary a year. Meat originated from *Salmonella* infected flocks will not be purchased by meat processing plants, therefore compensation is required ($120,000,000 \times 0.081 \times 1.6$ €; about 1.6 € is the price of a broiler to be slaughtered).

7.2. Testing scheme

1. Frequency and status of sampling

- (a) The sampling frame shall cover all flocks of broilers covered by the scope of Regulation (EC) No 2160/2003.
- (b) Flocks of broilers shall be sampled on the initiative of the food business operator and by the competent authority.
- Sampling on the initiative of the food business operator shall take place in accordance with National legislation at day old chicks, and accordance with Article 5(3) of Regulation (EC) No 2160/2003 within three weeks before the birds are moved to the slaughterhouse.
 - Sampling by the competent authority shall include each year at least one flock of broilers on 10 % of the holdings with more than 5 000 birds. It shall be done on a risk basis each time the competent authority considers it necessary.
- A sampling carried out by the competent authority may replace the sampling on the initiative of the food business operator.
- (c) However, by way of derogation from point (a), the competent authority may decide to sample at least one flock of broilers per round on holdings with several flocks if:
- (i) an all in/all out system is used;
 - (ii) the same management applies to all flocks;
 - (iii) feed and water supply is common to all flocks;
 - (iv) during one year and at least six rounds, *Salmonella* spp were tested according to the monitoring scheme set out in point (b) in all flocks on the holding and samples of all flocks of at least one round were taken by the competent authority; and
 - (v) all results from the testing for *Salmonella Enteritidis* or *Salmonella Typhimurium* were negative.

2. Sampling protocol

At least two pairs of boot/sock swabs shall be taken. For free range flocks of broilers, samples shall only be collected in the area inside the house. All boot/sock swabs must be pooled into one sample. In day old chicks the sampling method is the same in breeders and layers.

In flocks with less than 100 broilers, where it is not possible to use boot/sock swabs as access to the houses is not possible, they may be replaced by hand drag swabs, where the boot swabs or socks are worn over gloved hands and rubbed over surfaces contaminated with fresh faeces, or if not feasible, by other sampling techniques for faeces fit for the intended purpose.

Before putting on the boot/sock swabs, their surface shall be moistened with maximum recovery diluents (MRD: 0,8 % sodium chloride, 0,1 % peptone in sterile deionised water), or sterile water or any other diluent approved by the NRI, referred to in Article 11 of Regulation (EC) No 2160/2003. The use of farm water containing antimicrobials or additional disinfectants shall be prohibited. The recommended way to moisten boot swabs shall be to pour the liquid inside before putting them on. Alternatively, boot swabs or socks may be autoclaved with diluents within autoclave bags or jars before use. Diluents may also be applied after boots are put on using a spray or wash bottle.

It shall be ensured that all sections in a house are represented in the sampling in a proportionate way. Each pair should cover about 50 % of the area of the house.

On completion of sampling the boot/sock swabs shall be carefully removed so as not to dislodge adherent material. Boot swabs may be inverted to retain material. They shall be placed in a bag or pot and labelled.

The competent authority shall supervise education of the food business operators to guarantee the correct application of the sampling protocol.

In the case of sampling by the competent authority because of suspicion of *Salmonella* infection and in any other case considered appropriate, the competent authority shall satisfy itself by conducting further tests as appropriate so that the results of examinations for *Salmonella* in flocks of broilers are not affected by the use of antimicrobials in those flocks.

Where the presence of *Salmonella Enteritidis* and *Salmonella Typhimurium* is not detected but antimicrobials or bacterial growth inhibitory effect are detected, it shall be considered as an infected flock of broilers for the purpose of the Community target.

3. Examination of the samples

3.1. Transport and preparation of the samples

Samples shall be sent by express mail or courier to the laboratories referred to in Articles 11 and 12 of Regulation (EC) No 2160/2003, within 24 hours after collection. At the laboratory samples shall be kept refrigerated until examination, which shall be carried out within 48 hours following receipt.

The pair of boot/sock swabs shall be carefully unpacked to avoid dislodging adherent faecal material, pooled and placed in 225 ml buffered peptone water (BPW) which has been pre-warmed to room temperature.

The sample shall be swirled to fully saturate it and culture shall be continued by using the detection method in point 3.2.

If ISO standards on the preparation of faeces for the detection of salmonella are agreed on, they shall be applied and replace the provisions on the preparation of samples set out in this point.

3.2. Detection method

The detection method recommended by the Community reference laboratory (CRI.) for salmonella in Bilthoven, the Netherlands, shall be used.

That method is described in the current version of draft Annex D of ISO 6579 (2002): "Detection of *Salmonella spp.* in animal faeces and in samples of the primary production stage".

In that detection method, a semi-solid medium (modified semi-solid Rappaport-Vassiladis medium, MSR.V) is used as the single selective enrichment medium.

3.3. Serotyping

At least one isolate from each positive sample shall be serotyped, following the Kaufmann-White scheme.

3.4. Alternative methods

With regard to samples taken on the initiative of the food business operator, the methods of analysis provided for in Article 11 of Regulation (EC) No 882/2004 of the European Parliament and of the Council (1), may be used instead of the methods for the preparation of samples, detection methods and serotyping provided for in points 3.1, 3.2 and 3.3 of this Annex, if validated in accordance with EN/ISO 16140/2003.

3.5. Storage of strains

At least one isolated strain per house and per year shall be collected by the competent authority and stored for future phagetyping or anti-microbial susceptibility testing, using the normal methods for culture collection, which must ensure integrity of the strains for a minimum of two years.

4. Results and reporting

4.1. Calculation of prevalence for the verification of the Community target

A flock of broilers shall be considered positive for the purpose of verifying the achievement of the Community target, where the presence of *Salmonella Enteritidis* and/or *Salmonella Typhimurium* (other than vaccine strains) was detected in the flock at any occasion.

Positive flocks of broilers shall be counted only once per round, irrespective of the number of sampling and testing operations and only be reported in the year of the first positive sampling.

4.2. Reporting

Reporting shall include:

- (a) the total number of flocks of broilers sampled by the competent authority or by the food business operator;
- (b) the total number of infected flocks of broilers;
- (c) all serotypes of *Salmonella* isolated (including other than *Salmonella Enteritidis* and *Salmonella Typhimurium*);
- (d) explanations of the results, in particular concerning exceptional cases.

The results and any additional relevant information shall be reported as part of the report on trends and sources provided for in Article 9(1) of Directive 2003/99/EC of the European Parliament and of the Council.

4.3. Additional information

At least the following information shall be made available from each flock of broilers tested for analysis at national level or by the European Food Safety Authority at its request:

- (a) sample taken by the competent authority or by the food business operator;
- (b) holding reference, remaining unique in time;
- (c) house reference, remaining unique in time;
- (d) month of sampling.

7.3. Targets on vaccination or treatment

Vaccination is not compulsory in broiler flocks of *Gallus gallus*. The rules of using vaccination and treatment are laid down in Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry.

8. Detailed analysis of the cost of the programme

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: modified ISO 6579 (2002) using MSRV planned to be carried out in the framework of official sampling (1822*0,1*2) +official samples of verifying the efficiency of disinfection(1822*0,81*2)	3316	10	33160	yes
1.2. Cost of sampling	Test: serotyping (1822*0,66*0,1*2) planned to be carried out in the framework of official sampling costs of sampling of approx. 1822 flocks, 12 times during 2010 = 21864 sampling sessions	240	40	9600	yes
1.3. Other costs		21864	50	1093200	no
2. Vaccination or treatment					
2.1. Purchase of vaccine/treatment					
2.2. Distribution costs					
2.3. Administering costs					
2.4. Control costs					
3. Slaughter and destruction					
3.1. Compensation of animals	Cost of the compensation of the positive animals, approx. $120.000.000 \times 0.081 = 9.720.000$ animals Slaughtering of infected flocks can only be authorised when meat from these flocks is treated according to specific food safety legislation. Therefore, slaughter is not likely to be performed at regular contracted slaughterhouses, which makes transport costs much higher than usual, approx. $120.000.000 \times 0.081 = 9.720.000$ animals, 1.8 kg/animal	9720000	1.6	15552000	yes
3.2. Transport costs	Cost of the destruction approx. $120.000.000 \times 0.081 = 9.720.000$ animals, 1.8 kg/animal	17496000	0.04	699840	no
3.3. Destruction costs		17496000	0.2	3499200	no

3.4. Loss in case of slaughtering	This loss is estimated to be of a large extent. However, losses due to the early slaughter of the flock is very hard to estimate.		
3. Slaughter and destruction			
4. Cleaning and disinfection	When taking into account the number of flocks (1822) and the infection rate (66%), an approximate number of 1200 flocks to be cleansed and disinfected can be estimated. Cleansing and disinfection of an average flock depends on several factors, however an approximate amount of costs is given.	1200	500
5. Salaries (staff contracted for the programme only)			600000
6. Consumables and specific equipment			no
7. Other costs			no
		TOTAL	21487000
		Community funding requested	15594760
			yes



**Central Agricultural Office
Animal Health and Animal Welfare Directorate**

HUNGARY

Application
for Community financing for the national control programme
of Hungary for
Salmonella spp.
in breeding flocks of Meleagris gallopavo
for the year 2010.

30th of April, 2009

Part A

General requirements for the national salmonella control programmes

- (a) The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards breeding flocks of *Meleagris gallopavo* in the territory of Hungary. The programme covers the two zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*).
- (b) Protection against salmonellosis is mandatory pursuant to the relevant EU provision as of 1 January 2010. A Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the Decree was to ensure compliance with the changes in the Community legislation. The Decree sets the conditions of the obligatory control measures in breeding, laying and broiler flocks of *Gallus gallus* and voluntary (mandatory from 2010) measures in breeding and broiler flocks of *Meleagris gallopavo* against specified *Salmonella* serotypes. The Decree 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 Council¹ indicating the relevant animal population and phases of production which sampling cover

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

More information about testing scheme: please see *Part B Chapter 7.2*

- (c) The Decree complies with the specific requirements laid down in Parts C, D and E of Annex II to Regulation (EC) No 2160/2003

(d) I General

- 1.1. The short summary referring to the occurrence of the salmonellosis [zoonotic salmonella] in Hungary with specific reference to the results obtained in the framework of monitoring in accordance with Article 4 of Directive 2003/99/EC of the European Parliament and of the Council², particularly highlighting the prevalence values of the salmonella serovars targeted in the salmonella control programmes: Please see Part B Chapter 2.
- 1.2. The structure and organization of the relevant competent authorities: Please see Annex 1.
- 1.3. Laboratories involved in the programme must be accredited by the National Accreditation Body (NAI) and supervised by the National Salmonella Reference Laboratory (NRI) of the Republic of Hungary (Food and Feed Safety Directorate (formerly named: National Food Investigation Institute), Central Agricultural Office). The NRI will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).
- 1.4. Methods used in the examination of the samples in the framework of the programme: Please see Part B Chapter 7.3

¹ OJ L 325, 12.12.2003, p. 1.

² OJ L 325, 12.12.2003, p. 31.

- 1.5. Official controls (including sampling schemes) at feed, flock and/or herd level: Please see Part B Chapter 7.2.1.2.
- 1.6. 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: Please see Part B Chapter 4.4.3. and Chapter 4.4.4.
- 1.7. National legislation relevant to the implementation of the programme, including national provisions concerning the activities set out in the programme: Please see Part B Chapter 4.4.7
- 1.8. Financial assistance provided to food and feed businesses in the context of the programme: Costs and benefits are calculated based on the previous year's data of the Poultry Product Board of Hungary. In the case of breeding flocks of *Meleagris gallopavo* costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleansing and disinfection) as well as financial losses due to decreased income for the poultry industry. Veterinary Act No. XLVI. of 2008. on the food chain and its official control and Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses and Decree No. 148/2007. (XII.7.) on the prevention of certain animal diseases and the order of claiming subsidy and payment regarding their overcome in 2009 give the financial guarantee of the national programme.

2. Concerning food and feed businesses covered by the programme

2.1. The structure of the production

Breeding flocks are kept usually until the age of one year (57 weeks). The production period begins when the flock is 33-34 weeks of age. In Hungary, breeding flocks are typically kept in barns and can be structured according to elite, grandparent- and parent flocks, size, and the type of holdings.

2.2. The structure of the production of feed.

Feeding of poultry, including breeding flocks of *Meleagris gallopavo* is based on cereal products, mainly on corn, barley and wheat. Soybean and fishmeal is used as a source of protein.

Commercial feed producers are operating according to GMP standards. Breeding flocks mainly use commercial pelleted feed, the technology of production of which includes heat treatment.

In Hungary, control of feedingstuffs is performed according to two main pieces of legislation:

Act No. CXIX. of 2001 on the production, marketing and use of feedingstuffs, and

Decree of the Ministry of Agriculture and Rural Development No. 43/2003. (IV. 26.) on the implementation of the above Act.

The Act lays down general principles of the control of feed, sets the competent authorities and allocates the tasks to these services.

According to Art. 4. (1) of the Act, a feed production plant may be authorised by the competent County Animal Health Station. The authorisation must be renewed at periods of a maximum of 5 years. Other authorities are also involved in the authorisation process.

The registration of the feed production units is done by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

Article 6. (1) states that the feedingstuffs produced may neither pose a direct health risk to livestock, nor an indirect risk to public health.

Therefore, the competent Directorate of Food Chain Safety and Animal Health of County Agricultural Office perform regular controls of the feed production plants, including the production, keeping, marketing, transport and use of feed produced. Controls also include compliance with feed hygiene rules, safety, composition, microbiological safety of feedingstuffs, as well as many other parameters such as the presence of prohibited substances, packaging, labelling etc.

In case of non-compliance with any of the parameters listed in the Act and the Decree, the competent County Animal Health Station may prohibit the production, keeping, marketing, transport, export, import or transport of the relevant feed. If such feed was already used, the Directorate of Food Chain Safety and Animal Health of County Agricultural Office has a duty to notify the county level public health authority.

The Decree gives detailed instruction to authorities and stakeholders on how to implement the Act. Annex 20 to the Decree sets out the maximum tolerable amount of *Salmonella* spp. in food and the related ISO standards. According to ISO 6579:2002, feedingstuffs must show zero *Salmonella* spp. / 25 grams.

In addition, the same Annex states that feedingstuffs must be free of any pathogens which may pose a direct risk to animal health and/or an indirect risk to public health.

2.3. Relevant guidelines

Hungary has relevant guidelines for good animal husbandry practices or other guidelines (mandatory or voluntary) on biosecurity measures defining the hygiene management at farms, the measures preventing incoming infections carried by animals, feed, drinking water, people working at farms, and about hygiene in transporting animals to and from farms. The guideline of Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis, the guideline about feed control, the guideline of animal transports and the Hungarian Poultry Product Board's guideline for good practice. All farms have to make an own biosecurity programme and all have to get checked by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

2.4. Routine veterinary supervision of farms:

Controls are planned annually by the Food Chain Safety Deputy President of Central Agricultural Office. Number of controls depends on risk estimate.

2.5. Registration of farms:

Registration of the breeding flocks by the veterinary authority is compulsory under Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code. Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System. For more information please see Part B Chapter 4.2.

2.6. Record-keeping at farms: All documents concerning to the programme must be kept for 3 years. The documentation has to contain all data about animals, transports, samples and medication.

2.7. Documents to accompany animals when dispatched.

Commercial poultry consignments are accompanied with animal health certificates according to Directive 90/529/EC. Consignments with national destinations are accompanied with animal health certificates according to Decree 41/1997. (V. 28.) FM appendices 8/a and 8/b.

In accordance with Paragraph 85. of Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code, the official veterinarian carries out a stock examination within 12 hours before transportation, and on the basis of the financing/allowance plan, fills out the animal health certification in the appendices 8/a. and 8/b., certifies the place of origin of the day-old animals, their circumstances free from epidemic, the name of the vaccine used, the time and method of the immunization. Because of the changes occurred since the publication of the legislation, this ordinance cannot be fulfilled in these days.

„Animals can only be transported when accompanied by a valid certification attested by the veterinarian responsible for treatment” in accordance with point 4.2.1. point (Starting of poultry consignments) of the guide which was prepared for poultry hatcheries that are obliged to TIR registration, in accordance with point d) of Paragraph 6. of Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System (hereinafter: BIR regulation). In pursuance with point 4.2.1., „The hatchery starting the consignment has to fill in the Poultry movement form 2740, on the upper part of which the data of starting has to be given”.

The poultry animal health certificate laid down in the BIR regulation is not to replace the certificate 8/b., as the authority responsible for animal health takes part in issuing the latter only.

At the same time, even the certification 8/a. can not be replaced by the introduction of the BIR regulation, as certain data that have to be certified by the veterinarian in the certificate 8/a are not placed on the latter, for example immunizations carried out in the stock, diagnostical examinations and the results thereof.

In pursuance of the abovementioned regulations, all three certifications are required for the transport of the day-old poultry. The BIR certification is drawn up by the veterinarian responsible for treatment, while certifications 8/a. and 8/b. are filled in by the approved veterinarian, in accordance with the Governmental Decree No 113/2006. (V. 12.) on the competence and detailed rules of the activity of the approved veterinarian, with the exception of the case when the the approved

veterinarian is not the treating veterinarian, because in those cases the certification 8/a. has to be filled in by the veterinarian of the hatchery.

As it can be seen from above, the current legislation of movement documentations doesn't seem to be unambiguous as regards several points.

For solving the problem, a working group was established. The working group is predestinated for revising the form and content of certificates for inland live animal transportation and as far as possible, for the harmonisation thereof.

2.8. Other relevant measures to ensure the traceability of animals. Please see Part A 2.7. and Part B Chapter 4.2. and Chapter 4.4.1.

Part B

1. Identification of the programme

Member State: **Hungary**

Disease: **Infection of animals with zoonotic *Salmonella* spp.**

Animal population covered by the programme: **Breeding flocks of turkeys (*Meleagris gallopavo*)**

Year of implementation: **2010**

Reference of this document: **02.3/982/5/2009.**

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Date sent to the Commission: **30th of April, 2009**

2. Historical data on the epidemiological evolution of zoonotic salmonellosis specified in point 1

Monitoring and control programmes for *Salmonella* spp. (*S. Enteritidis* and *S. Typhimurium*) started in Hungary in 1997 by issuing official guidelines for the poultry sector. The goal of the project was to achieve similar targets as which were set by Council Directive 92/117/EEC. The collection of guidelines were ordered by the Ministry of Agriculture and were prepared by an expert group consisting of both Hungarian experts of various backgrounds (Hungarian Academy of Science, National Food Investigation Institute, Central Veterinary Institute and numerous practicing veterinarians) and experts of the Agri-Livestock Consultant Ltd (W. Edel and C. Wray). The work was financed by the PHARE programme of the European Union under project No. HU 9304-05-02. The programme covered the whole poultry sector in relation of *Gallus gallus*, breeding flocks, hatcheries, broiler flocks, table egg producing layer flocks, egg packaging and distribution establishments, poultry slaughterhouses, cutting plants as well as feed mills. Because of the similarities the statements of this study can be used for the turkeys as well. The guidelines stated clearly that there is an urgent need for centralised official administrative measures in the form of a ministerial decree by the Minister of Agriculture.

The first decree was created in the year 2002: Decree 49/2002. (V. 24.) of the Minister of Agriculture and Rural Development on protection against salmonellosis and poultry typhus and on retaining officially free status, and was modified by the Decree 97/2003. (VIII. 19) Minister

of Agriculture and Rural Development. A new Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the new Decree was to ensure compliance with the changes in the Community legislation.

The Decree sets the conditions of the obligatory control measures in breeding and broiler flocks of turkeys (mandatory from 2010) measures against specified *Salmonella* serotypes. As a prerequisite, there is an obligation of the holdings keeping breeding and broiler flocks of turkeys, (*Meleagris gallopavo*) to be registered by the State Veterinary Service. Results of testing required by the Decree are also to be notified to the Directorate of Food Chain Safety and Animal Health of County Agricultural Office (formerly named: County Animal Health and Food Control Station).

As a result of the above mentioned mandatory control in breeding flocks of turkeys, latest data show that infection amongst these flocks is more or less 1%. However, the Community target which is set by Commission Regulation (EC) of 20 June 2008 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain *Salmonella* serotypes in breeding flocks of *Meleagris gallopavo* and amending Regulation (EC) No 2160/2003 is a maximum of 1% by 31 December 2012. This goal can be achieved by a rigorous control programme using extensive professional and financial resources.

3. Description of the submitted programme

The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards breeding flocks of *Meleagris gallopavo* in the territory of Hungary. The programme covers the two zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*).

Included in the programme are all breeding flocks of *Meleagris gallopavo* registered in the territory of Hungary.

Laboratories involved in the programme must be accredited by the National Accreditation Body (NAT) and supervised by the National *Salmonella* Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate (formerly named: National Food Investigation Institute), Central Agricultural Office). The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).

4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the programme:

First year: 2007

Last year: 2009

Control

Eradication

- | | |
|---|--|
| <input checked="" type="checkbox"/> Testing | <input type="checkbox"/> Testing |
| <input checked="" type="checkbox"/> Slaughter of positive animals | <input type="checkbox"/> Slaughter of positive animals |
| <input checked="" type="checkbox"/> Killing of positive animals | <input type="checkbox"/> Killing of positive animals |
| <input checked="" type="checkbox"/> Vaccination | <input type="checkbox"/> Extended slaughter or killing |
| <input type="checkbox"/> Treatment | <input type="checkbox"/> Disposal of products |
| <input type="checkbox"/> Disposal of products | |

Monitoring or surveillance

Other measures (*specify*):

- Flocks positive for *S. Typhimurium* or *S. Enteritidis* will be subject to movement control. As soon as the NRL confirms the infection, the flock shall be sent to isolated slaughter. Meat originating from such flocks may only be authorised for human consumption after meeting all relevant food safety requirements as regards of the Regulation (EC) No. 2160/2003, Annex II, Point E.
- Hatching eggs originating from such flocks may only be marketed according to the Regulation (EC) No. 2160/2003, Annex II, Point C.5.
- After emptying the relevant holding operators are required to implement proper cleansing and disinfection. Effectiveness of the procedure is controlled by the competent regional animal health authority. Restocking is only authorised, when cleansing and disinfection is deemed to be satisfactory.

4.2. Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme:

All holdings must be registered at the district veterinary office. The official senior veterinary officer keeps and updates the record of holdings participating the programme. The official senior veterinary officer also declares the status of the holdings according to their actual serological status.

The 19 Directorates of Food Chain Safety and Animal Health of County Agricultural Offices coordinate and supervise the programme in their territory. They are required to annually report the actual status of the programme to the Animal Health and Animal Welfare Directorate of the Central Agricultural Office.

Name:	Central Agricultural Office Animal Health and Animal Welfare Directorate
Name in Hungarian:	Mezőgazdasági Szakigazgatási Hivatal Központ Állategészségügyi és Állatvédelmi Igazgatóság
Address:	1149 Budapest, Tábornok u. 2., Hungary
Tel.:	+36-1-460-6300
Fax:	+36-1-222-6065

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

The programme will be implemented on the whole territory of Hungary. The programme is compulsory as from the 1st January, 2010, the third year of the programme starts as from the 1st January, 2012.

4.4. Measures implemented under the programme

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

Paragraph 3. (3) f) of Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis states that all holdings must be registered.

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

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

According to point 4. c) of Annex 1 to Decree 2/2008 (Protection in breeding flocks of Gallus gallus) (hereinafter: "Annex"): "If the salmonella test result is positive, the laboratory shall immediately inform the competent County Agricultural Office and the operator concerned, and simultaneously shall send the isolated salmonella stock together with a sample accompanying document complying with the template issued by Central Agricultural Office to the national reference laboratory operated by the Food and Feed Safety Directorate of Central Agricultural Office for testing and serotyping purposes. The copy of the accompanying document must be kept by the testing laboratory for 3 years."

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

According to the Annex:

"6. a) If during serotyping the national reference laboratory finds infection of a Salmonella serotype, which is not a subject to Regulation 584/2008/EC the place of keeping of animals must be strictly cleaned and disinfected after the production cycle of the flock.

b) If during serotyping the national reference laboratory finds infection with Salmonella Enteritidis or Salmonella Typhimurium, in exceptional cases where the competent authority has reasons to suspect false negative results at the first official sampling at the holding, a secondary official confirmatory sampling may be performed, composed of faeces or birds (for the detection of salmonella in organs).

In exceptional cases where the competent authority has reasons to suspect false positive sampling performed at the initiative of the operator at the holding, follow-up official sampling may be performed.

When the secondary official confirmatory test has a negative result, the official senior veterinary officer lifts the movement restriction of the flock and of its products.

7. a) If the result of the repeated test is also positive, or if there is not any repeated test. Part C Annex II to Regulation 2160/2003/EC must be followed. The official senior veterinary officer orders movement restriction of the given flock and its products, and immediately withdraws the official salmonella free certificate. The official certificate of other flocks of the farm may be simultaneously withdrawn, if the isolation of the infected flock is not fully guaranteed. In case of slaughtering the flock is sent to isolated slaughtering after the preliminary agreements with the slaughterhouse and the official senior veterinary officer supervising the slaughterhouse.

b) Processing procedures following the isolated slaughtering must be separated from the processing and handling of other basic materials of animal origin until salmonella is

killed in an efficient and confirmed way, and these must be preliminary consulted with the competent official senior veterinary officer. Wording "Originating from a salmonella positive flock" must be legibly and inerasably indicated on each packaging unit of the food basic material deriving from the isolated slaughter and processing, directly near the identification code and the tracking sign used within the establishment, as well as on the accompanying sales document. Raw material deriving from a positive flock may be used only for preparation of foods and the production process steps shall guarantee the end-product food to be free of salmonella. This must be confirmed with laboratory microbiological test results before marketing of each such food item into retail trade, and the competent supervising official veterinarian must be notified therefore.

- c)* After emptying the keeping place of the infected flock the operator must provide for the cleansing of the keeping place (the building, its facilities and equipment, side-rooms and passageways), and for its stringent disinfection as well as rodent and insect control in accordance with legislation in force. The rest of bedding must be disposed in accordance with the relevant legal rule. After taking the necessary steps the operator notifies the County Agricultural Office which controls the efficiency of measures taken.
 - d)* Restocking into the airspace concerned is permitted by the County Agricultural Office only if the efficiency of disinfection is found satisfactory by the laboratory test.
 - e)* The presence of salmonella in the feed of the infected flock must be immediately tested in accordance with the relevant legal rule. The feed may be given only to the infected flock until the test is negative. If the feed is found infected it must be disposed in accordance with the relevant rule, and facilities used for its storage and transportation must be disinfected. A separate test must be made for the detection of salmonella at the feed operator supplying the feed if infection is detected.
 - f)* In hatcheries receiving breeding eggs deriving from an infected flock Points 3 and 5 of Part C of Annex II to Regulation 2160/2003/EC must be followed in the procedure, and the contents of points *c)*-*d)* must be properly observed. The hatchery must contribute to the detection of the source of contamination on the basis of its records and bear the costs.
 - g)* A new officially salmonella free certificate must be requested in respect of the newly stocked flock, which must be issued on the basis of the consecutive test with a negative result.
8. *a)* If during serotyping within testing of the sample taken in the hatchery the national reference laboratory finds infection of a Salmonella serotype, which is not a Community target according to Regulation 584/2008/EC the airspaces concerned must be strictly cleaned and disinfected after hatching in accordance with the relevant legal rule.
- b)* If during serotyping within testing of the sample taken in the hatchery the national reference laboratory finds infection with Salmonella Enteritidis or Salmonella Typhimurium, the official senior veterinary officer orders movement restriction in respect of the airspace concerned. All eggs and day-old chicken kept in the airspace concerned must be destroyed in accordance with the relevant legal rule. At the same time the operator running the breeding egg hatchery arranges for a confirmative test in accordance with point *d)* Part 3. The contents of Part 7 must be followed in respect of the breeding stock in case of a positive test result.

c) After emptying the infected airspace of the hatchery the operator must provide for the cleansing of the airspace (the building, its facilities and equipment, side-rooms and passage ways), and for its stringent disinfection as well as rodent and insect control in accordance with the relevant legal rule. After taking the necessary steps the operator notifies the County Agricultural Office, which controls the efficiency of measures taken.

d) Restocking of the airspace concerned is permitted by the regional organ of the County Agricultural Office only if the efficiency of disinfection is found satisfactory on the basis of the laboratory test.

9. a) If during serotyping of the sample with a positive result, taken in the breeding stock or in the hatchery infection with *Salmonella* Enteritidis or *Salmonella* Typhimurium is found, the operator revises its epidemic action plan within 30 days, and submits it to the competent County Agricultural Office for re-approval. The revised plan must contain revision of the hygienic conditions, particularly of the disinfection procedures and the efficiency of rodent control, the test results relating to the potential causes of the infection, and also the list of measures considered necessary. The plan is evaluated by the County Agricultural Office within 30 days. If the plan is found unsatisfactory by the County Agricultural Office, the official senior veterinary officer orders a movement restriction of the flock concerned and the hatchery's airspace until the plan is properly modified by the operator.

b) After the production cycle and the hatching cycle the keeping place of the animals must be strictly cleaned and disinfected in accordance with the relevant legal rule, and in case of the breeding flock point e) Part 7 must be followed in respect of the feed."

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

See point 4.4.4.!

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:

See point 4.4.4.!

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

- Regulation (EC) No. 2160/2003. of the European Parliament and of the Council on the control of *Salmonella* and other food-borne zoonotic agents
- Commission Regulation No. 584/2008 (EC) of 20 June 2008 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards a Community target for the reduction of the prevalence of *Salmonella* enteritidis and *Salmonella* typhimurium in turkeys
- Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of *Salmonella* in poultry
- Commission Regulation (EC) No. 213/2009 Commission Regulation of 18 March 2009 amending Regulation (EC) No 2160/2003 of the European Parliament and of the Council and Regulation (EC) No 1003/2005 as regards the control and testing of *Salmonella* in breeding flocks of *Gallus gallus* and turkeys

- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis
- Decree No. 41/1997. (V. 28.) of the Minister of Agriculture on Code of Veterinary Rules

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

- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses in 2009

5. General description of the costs and benefits:

Costs and benefits are calculated based on the base line study's data and the previous year's data of the Poultry Product Board of Hungary. In the case of breeding flocks costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleansing and disinfection) as well as financial losses due to decreased income for the poultry industry.

A detailed description of the costs is listed under point 8.

Benefits in case of the successful programme include improved food safety which largely contributes to the achievement of public health goals of the Community.

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

6.2. Stratified data on surveillance and laboratory tests -

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

6.4. Data on vaccination programmes -

7. Targets

7.1. Targets related to testing

7.1.1. *Targets on diagnostic tests*

Number and specification of tests

Mandatory testing will be performed in all breeding flocks of turkeys during their whole life span. A preliminary calculation was made on the approximate number of tests to be performed in the flocks. The number of tests calculated is based on breeding flocks containing more than 250 hens (what is 136 at the moment) and the testing scheme as provided for in the Annex to Commission Regulation No. 213/2009/EC of 18 March implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain salmonella serotypes in breeding flocks of *Gallus gallus* and *Meleagris gallopavo* and amending Regulation (EC) No 2160/2003.

The Annex of the above mentioned Regulation requires all relevant breeding flocks to be tested three times during the rearing period and further testing every second week during the whole production period.

Breeding flocks are kept usually until the age of one year (57 weeks). The production period begins when the flock is 33-34 weeks of age.

In Hungary, breeding flocks are typically kept in barns which makes the taking of boot swabs the most effective way of detecting possible infection.

Using the above numbers and the testing scheme specified in the Regulation, each breeding flock will be sampled and tested approximately 11 times during a year. During each sampling five pairs of boot swabs will be taken and sent into the laboratory. This means that during a one-year period, $11 \times 5 = 55$ pairs of boot swabs will be taken in one flock.

Given that in Hungary there are 136 breeding flocks (~400000 animals), the total number of samples to be taken in the frame of routine business sampling is $(136 \times 5 \times 11) + (136 \times 0,1 \times 5) = 7548$ pairs of boot swabs, 3774 isolates and official samples (10%).

In addition, when a flock is tested positive, confirmatory sampling might be made, it will take place using 5 pairs of boot swabs and additional birds selected from the flock. Based on base line study approximately less than 1 % of the flocks are infected with one or more of the 2 most relevant Salmonella serotypes, and 6,7% of the flocks are infected any serotype of Salmonella. This means that in 6,7% of the 136 flock (in 10 flocks) positive isolates will need to be serotyped. Confirmatory tests number will be nearly 20% of the infected flocks and will be required with the testing of 5 pairs of boot swabs, faeces material, birds, etc. each. That gives another

$136 \times 0,067 \times 0,2 = 1,82$ sampling, with nearly 6 isolates to serotype. Summary nearly $(3774 \times 0,067 = 252 + 6) \sim 260$ isolates will be needed to serotype.

However, an exact number of tests which will be performed is not possible, because the time when the flock becomes infected can not be predicted.

7.2. Testing scheme

Testing scheme as provided for in the Annex to Commission Regulation No. 584/2008/EC of 30 June 2008 and Commission Regulation No 213/2009 of 18. March 2009 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain salmonella serotypes in breeding flocks of *Gallus gallus* and breeding turkeys amending Regulation (EC) No 2160/2003 will be used.

Details of the testing scheme are the following:

1. Sampling frame

The sampling frame shall cover all adult breeding flocks of *Melcagris gallopavo* comprising at least 250 birds.

2. Monitoring in breeding flocks

2.1. Location, frequency and status of sampling

Breeding flocks shall be sampled at the initiative of the operator and as part of official controls.

2.1.1. Sampling at the initiative of the operator

Sampling shall take place every third weeks at the holding. The detection of relevant salmonella serotypes during the sampling at the initiative of the operator has to be notified without delay to the County Agricultural Office, Directorate of Food Chain Safety and Animal Health by the operator, the sampler or the laboratory performing the analyses.

2.1.2. Official control sampling

Official sampling shall be carried out on three occasions during the production cycle:

- (a) within four weeks following moving to laying phase or laying unit;
- (b) towards the end of the laying phase, not earlier than eight weeks before the end of the production cycle;
- (c) during the production, at any time sufficiently distant from the samples referred to in points (a) and (b).

2.2. Sampling protocol

2.2.1. Routine sampling at the initiative of the operator

Sampling shall primarily consist of faecal samples and shall aim to detect a 1 % within flock prevalence, with 95 % confidence limit. To that effect, the samples shall comprise one of the following:

- (a) Pooled faeces made up of separate samples of fresh faeces each weighing not less than 1 g taken at random from a number of sites in the building in which the birds are kept, or where the birds have free access to more than one building on a particular holding, from each group of buildings on the holding in which the birds are kept. Faeces may be pooled for analysis up to a minimum of two pools.

The number of sites from which separate faeces samples are to be taken in order to make a pooled sample shall be as follows:

Number of birds kept in a building	Number of faeces samples to be taken in the building or group of buildings on the holding
250-349	200
350-449	220
450-799	250
800-999	260
1 000 or more	300

- (b) Five pairs of boot swabs:

Boot swabs used shall be sufficiently absorptive to soak up moisture. Tubegauze 'socks' are also acceptable.

The surface of the boot swab shall be moistened using appropriate diluent (such as 0,8 % sodium chloride, 0,1 % peptone in sterile deionised water, or sterile water).

Walking around shall be done in a manner which will sample representatively all parts of the sector, including littered and slatted areas when slats are safe to walk on. All separate pens within a house shall be included in the sampling. On completion of sampling in the chosen sector, boot swabs must be removed carefully so as not to dislodge adherent material.

The boot swabs may be pooled for analysis into a minimum of two pools.

- (c) In cage breeding flocks, sampling may consist of naturally mixed faeces from dropping belts, scrapers or deep pits, depending on the type of house. Two samples of at least 150 g shall be collected to be tested individually:

- (i) droppings belts beneath each tier of cages which are run regularly and discharged into an auger or conveyor system;
- (ii) droppings pit system in which deflectors beneath the cages are scraped into a deep pit beneath the house;
- (iii) droppings pit system in a step cage house when cages are offset and faeces fall directly into the pit.

There are normally several stacks of cages within a house. Pooled faeces from each stack shall be represented in the overall pooled sample. Two pooled samples shall be taken from each flock as described below.

In systems where there are belts or scrapers, these shall be run on the day of the sampling before sampling is carried out.

In systems where there are deflectors beneath cages and scrapers, pooled faeces which has lodged on the scraper after it has been run, shall be collected.

In step-cage systems where there is no belt or scraper system it is necessary to collect pooled faeces from the deep pit.

Droppings belt systems: pooled faecal material from the discharge ends of the belts shall be collected.

2.2.2. Official sampling

- (a) Routine sampling shall be as described in point 2.2.1.
- (b) Confirmatory sampling following detection of relevant salmonella from sampling at the hatchery shall be carried out as follows.

In addition to the sampling as described in point 2.2.1, the sampling may include a sample of birds taken at random from within each house of birds on the farm, normally up to five birds per house, unless the County Agricultural Office, Directorate of Food Chain Safety and Animal Health deems necessary to sample a higher number of birds. The examination shall consist in a test for research of anti-microbials or of bacterial growth inhibitory effect in samples. A test is considered failed if a positive is found in any of the birds.

In case the presence of relevant salmonella is not detected but anti-microbials or bacterial growth inhibitory effect are, sampling of the flock for relevant salmonella and bacterial growth inhibitory effect shall be repeated until no bacterial growth inhibitory effect is detected, or the breeding flock is destroyed. In the latter case, the breeding flock shall be accounted for as an infected breeding flock for the purpose of the Community target.

- (c) Suspect cases

In exceptional cases where the Central Agricultural Office, Food and Feed Safety Directorate has reasons to suspect false negative results at the first official sampling at the holding, a secondary official confirmatory sampling may be performed, composed of faeces or birds (for the detection of salmonella in organs).

In exceptional cases where the National Food Investigation Institute has reasons to suspect false positive sampling performed at the initiative of the operator at the holding, follow-up official sampling may be performed.

3. Examination of the samples

3.1. Preparation of the samples

3.1.1. Boot swabs samples

- (a) carefully unpack the pair of boot swabs (or 'socks') to avoid dislodging adherent faecal material and place in 225 ml BPW which has been prewarmed to room temperature;
- (b) where five pairs of boot swabs are pooled into two samples, place five individual samples into a minimum of 225 ml BPW and ensure that all the samples are totally immersed in the BPW;
- (c) swirl to fully saturate the sample and continue culture by using the detection method in 3.2.

3.1.2. Other faecal material samples

- (a) at the laboratory place each sample (or pooled sample as appropriate) into an equal weight of Buffered Peptone Water and mix gently;
- (b) allow the sample to soften for 10-15 minutes then mix gently;

- (c) immediately after mixing remove 50 g of the mixture and add to 200 ml of Buffered Peptone Water which has been pre-warmed to room temperature;
- (d) continue culture of the sample by using the detection method in 3.2.

3.2. *Detection method*

The method recommended by the Community Reference Laboratory for Salmonella in Bilthoven, Netherlands, shall be 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 $41,5 \pm 1$ °C for $2 \times (24 \pm 3)$ hours.

As regards the boot swabs samples and other faecal material samples referred to in paragraph 3.1., it is possible to pool incubated BPW enrichment broth for future culture. To do that, incubate both samples in BPW as normal. Take 1 ml of incubated broth from each sample and mix thoroughly then take 0,1 ml of the mixture and inoculate the MSRV plates in the usual way.

3.3. *Serotyping*

At least one isolate from each positive sample shall be typed, following the Kaufmann-White scheme.

4. Results and reporting

A breeding flock shall be considered positive for the purpose of verifying the achievement of the Community target, when presence of relevant salmonella (other than vaccine strains) was detected in one or more faecal samples (or if there is a secondary official confirmation, in the relevant faecal samples or birds organ samples), taken at the holding. This shall not apply in exceptional cases of suspect breeding flocks where salmonella detection at the holding at the initiative of the operator was not confirmed by official sampling.

The cumulative results from sampling and testing in breeding flocks at holding level shall be accounted for, i.e. each breeding flock shall be counted only once irrespective of the number of sampling and testing operations. Positive breeding flocks shall be counted only once, irrespective of the number of sampling and testing operations.

Reporting shall include:

- (a) detailed description of the options implemented for the sampling scheme and the type of samples taken, as appropriate;
- (b) number of existing breeding flocks and those tested;
- (c) results of the testing;
- (d) explanations on the results, in particular concerning exceptional cases.

7.3. **Targets on vaccination or treatment**

Vaccination is not compulsory in breeding flocks of *Meleagris gallopavo*. The rules of using vaccination and treatment are laid down in Commission Regulation (EC) No 1177/2006 of 1

August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry.

8. Detailed analysis of the cost of the programme

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: modified ISO 6579 (2002) using MSRV planned to be carried out in the framework of official sampling ((136x3x5)/2) (nearly 1000 official sample)+ 136*0,01 official sampling of verifying the efficiency of disinfection	1022	10	10220	yes
	Test: serotyping planned to be carried out in the framework of official sampling (136*3*2*0,067)	55	40	2200	yes
1.2. Cost of sampling	costs of sampling of approx. 136 flocks 11 times during 2010 (one session consists the taking of 5 pairs of swabs)	1880	50	94000	no
1.3. Other costs					
2. Vaccination or treatment					
2.1. Purchase of vaccine	Cost of vaccine of approx. 400000 animals two times	800000	0.1	80000	yes
Purchase of treatment	Cost of treatment of approx. 4000 animals according to Art 2 Of Reg 1177/2006	4000	0.2	800	no
2.2. Distribution costs	Cost of the distribution (approx. 400000 animals)	400000	0.05	20000	no
2.3. Administering costs	Cost of the administration (approx. 400000 animals)	400000	0.1	40000	no
2.4. Control costs					

3. Slaughter and destruction						
3.1. Compensation of animals	Cost of compensation of the positive animals approx. $400000 \times 0.01 = 40000$ (SE/ST/S/SH infected animals)	40000	7	260000	yes	
3.2. Transport costs	Slaughtering of infected flocks can only be authorised when meat from these flocks is treated according to specific food safety legislation. Therefore, slaughter is not likely to be performed at regular contracted slaughterhouses, which makes transport costs much higher than usual, approx. $400000 \times 0.01 = 40000$ animals, 15 kg/animal	600000	0.04	24000	no	
3.3. Destruction costs	Cost of destruction of approx. $400000 \times 0.01 = 40000$ animals, 15 kg/animal	600000	0.2	120000	no	
3.4. Loss in case of slaughtering	This loss is estimated to be of a large extent. However, losses due to the early slaughter of the flock and the decreased income due to hatching eggs which could not be produced is very hard to estimate.					
3.5 Costs from treatment of products (milk, eggs, hatching eggs, etc)		160000	0.7	112000	no	
4. Cleansing and disinfection	When taking into account the number of flocks (136) and the infection rate (with the five relevant serotype) (6,7%), an approximate number of 10 flocks to be cleansed and disinfected can be estimated. Cleansing and disinfection of an average flock depends on several factors, however an approximate amount of costs is given.	10	500	5000	no	
5. Salaries (staff contracted for the programme only)						
6. Consumables and specific equipment						

7. Other costs		
TOTAL		968220
Community funding requested		372420
		yes



**Central Agricultural Office
Animal Health and Animal Welfare Directorate**

HUNGARY

Application

**for Community financing for the national control programme
of Hungary for**

**Salmonella spp.
in breeding flocks of Gallus gallus**

for the year 2010.

30th of April, 2009

Part A

General requirements for the national salmonella control programmes

- (a) The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards breeding flocks of *Gallus gallus* in the territory of Hungary. The programme covers the five zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*, *S. Infantis*, *S. Virchow* and *S. Hadar*).
- (b) Protection against salmonellosis is mandatory pursuant to the relevant EU provision as of 1 January 2007. A Decree was created and came into force on the 7th of January, 2008, and can be referred to as Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the Decree was to ensure compliance with the changes in the Community legislation. The Decree sets the conditions of the obligatory control measures in breeding, laying flocks and voluntary (mandatory from 2009) measures in broiler flocks of *Gallus gallus* against specified *Salmonella* serotypes. The Decree 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 Council¹ indicating the relevant animal population and phases of production which sampling cover

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

More information about testing scheme: please see *Part B Chapter 7.2*

- (c) The Decree complies with the specific requirements laid down in Parts C, D and E of Annex II to Regulation (EC) No 2160/2003

(d) 1 General

- 1.1. The short summary referring to the occurrence of the salmonellosis [zoonotic salmonella] in Hungary with specific reference to the results obtained in the framework of monitoring in accordance with Article 4 of Directive 2003/99/EC of the European Parliament and of the Council², particularly highlighting the prevalence values of the salmonella serovars targeted in the salmonella control programmes: Please see Part B Chapter 6.
- 1.2. The structure and organization of the relevant competent authorities: Please see Annex I.
- 1.3. Laboratories involved in the programme must be accredited by the National Accreditation Body (NAT) and supervised by the National Salmonella Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate (formerly named: National Food Investigation Institute), Central Agricultural Office). The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for cooperation with the Community Reference Laboratory in Bilthoven (NL).
- 1.4. Methods used in the examination of the samples in the framework of the programme: Please see Part B Chapter 7.3
- 1.5. Official controls (including sampling schemes) at feed, flock and/or herd level: Please see Part B Chapter 7.2.1.2.

¹ OJ L 325, 12.12.2003, p. 1.

² OJ L 325, 12.12.2003, p. 31.

- 1.6. 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: Please see Part B Chapter 4.4.3. and Chapter 4.4.4.
- 1.7. National legislation relevant to the implementation of the programme, including national provisions concerning the activities set out in the programme: Please see Part B Chapter 4.4.7
- 1.8. Financial assistance provided to food and feed businesses in the context of the programme: Costs and benefits are calculated based on the previous year's data of the Poultry Product Board of Hungary. In the case of breeding flocks costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleansing and disinfection) as well as financial losses due to decreased income for the poultry industry.
Veterinary Act No. XLVI. of 2008. on the food chain and its official control and Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses and Decree No. 148/2007. (XII.7.) on the prevention of certain animal diseases and the order of claiming subsidy and payment regarding their overcome in 2009 give the financial guarantee of the national programme.

2. Concerning food and feed businesses covered by the programme

2.1. The structure of the production

Breeding flocks of *Gallus gallus* in Hungary can be structured according to elite, grandparent- and parent flocks, their production type (meat or egg production line), size, and the type of holdings.

2.2. The structure of the production of feed.

Feeding of poultry, including breeding flocks of *Gallus gallus* is based on cereal products, mainly on corn, barley and wheat. Soybean and fishmeal is used as a source of protein.

Commercial feed producers are operating according to GMP standards. Breeding flocks mainly use commercial pelleted feed, the technology of production of which includes heat treatment.

In Hungary, control of feedingstuffs is performed according to two main pieces of legislation:

Act No. CXIX. of 2001 on the production, marketing and use of feedingstuffs, and

Decree of the Ministry of Agriculture and Rural Development No. 43/2003. (IV. 26.) on the implementation of the above Act.

The Act lays down general principles of the control of feed, sets the competent authorities and allocates the tasks to these services.

According to Art. 4. (1) of the Act, a feed production plant may be authorised by the competent County Animal Health Station. The authorisation must be renewed at periods of a maximum of 5 years. Other authorities are also involved in the authorisation process.

The registration of the feed production units is done by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

Article 6. (1) states that the feedingstuffs produced may neither pose a direct health risk to livestock, nor an indirect risk to public health.

Therefore, the competent Directorate of Food Chain Safety and Animal Health of County Agricultural Office perform regular controls of the feed production plants, including the production, keeping, marketing, transport and use of feed produced. Controls also include compliance with feed hygiene rules, safety, composition, microbiological safety of feedingstuffs, as well as many other parameters such as the presence of prohibited substances, packaging, labelling etc.

In case of non-compliance with any of the parameters listed in the Act and the Decree, the competent County Animal Health Station may prohibit the production, keeping, marketing, transport, export, import or transport of the relevant feed. If such feed was already used, the Directorate of Food Chain Safety and Animal Health of County Agricultural Office has a duty to notify the county level public health authority.

The Decree gives detailed instruction to authorities and stakeholders on how to implement the Act. Annex 20 to the Decree sets out the maximum tolerable amount of *Salmonella* spp. in food and the related ISO standards. According to ISO 6579:2002, feedingstuffs must show zero *Salmonella* spp. / 25 grams.

In addition, the same Annex states that feedingstuffs must be free of any pathogens which may pose a direct risk to animal health and/or an indirect risk to public health.

2.3. Relevant guidelines

Hungary has relevant guidelines for good animal husbandry practices or other guidelines (mandatory or voluntary) on biosecurity measures defining the hygiene management at farms, the measures preventing incoming infections carried by animals, feed, drinking water, people working at farms, and about hygiene in transporting animals to and from farms. The guideline of Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis, the guideline about feed control, the guideline of animal transports and the Hungarian Poultry Product Board's guideline for good practice. All farms have to make an own biosecurity programme and all have to get checked by the Directorate of Food Chain Safety and Animal Health of County Agricultural Office.

2.4. Routine veterinary supervision of farms:

Controls are planned annually by the Food Chain Safety Deputy President of Central Agricultural Office. Number of controls depends on risk estimate.

2.5. Registration of farms:

Registration of the breeding flocks by the veterinary authority is compulsory under Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code. Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System. For more information please see Part B Chapter 4.2.

2.6. Record-keeping at farms: All documents concerning to the programme must be kept for 3 years. The documentation have to contain all data about animals, transports, samples and medication.

2.7. Documents to accompany animals when dispatched.

Commercial poultry consignments are accompanied with animal health certificates according to Directive 90/529/EEC. Consignments with national destinations are accompanied with animal health certificates according to Decree 41/1997. (V. 28.) FM appendices 8/a and 8/b.

In accordance with Paragraph 85. of Decree No 41/1997. of the Minister of Agriculture on the publication of the Animal Health Code, the official veterinarian carries out a stock examination within 12 hours before transportation, and on the basis of the financing/allowance plan, fills out the animal health certification in the appendices 8/a. and 8/b., certifies the place of origin of the day-old animals, their circumstances free from epidemic, the name of the vaccine used, the time and method of the immunization. Because of the changes occurred since the publication of the legislation, this ordinance cannot be fulfilled in these days.

„Animals can only be transported when accompanied by a valid certification attested by the veterinarian responsible for treatment” in accordance with point 4.2.1. point (Starting of poultry consignments) of the guide which was prepared for poultry hatcheries that are obliged to TIR registration, in accordance with point d) of Paragraph 6. of Decree No 120/2007. (X. 18.) of the Minister of Agriculture and Rural Development on establishing and operating of the Poultry Information System (hereinafter: BIR regulation). In pursuance with point 4.2.1., „The hatchery starting the consignment has to fill in the Poultry movement form 2740, on the upper part of which the data of starting has to be given”.

The poultry animal health certificate laid down in the BIR regulation is not to replace the certificate 8/b., as the authority responsible for animal health takes part in issuing the latter only.

At the same time, even the certification 8/a. can not be replaced by the introduction of the BIR regulation, as certain data that have to be certified by the veterinarian in the certificate 8/a are not placed on the latter, for example immunizations carried out in the stock, diagnostical examinations and the results thereof.

In pursuance of the abovementioned regulations, all three certifications are required for the transport of the day-old poultry. The BIR certification is drawn up by the veterinarian responsible for treatment, while certifications 8/a. and 8/b. are filled in by the approved veterinarian, in accordance with the Governmental Decree No 113/2006. (V. 12.) on the competence and detailed rules of the activity of the approved veterinarian, with the exception of the case when the the approved veterinarian is not the treating veterinarian, because in those cases the certification 8/a. has to be filled in by the veterinarian of the hatchery.

As it can be seen from above, the current legislation of movement documentations doesn't seem to be unambiguous as regards several points.

For solving the problem, a working group was established. The working group is predestinated for revising the form and content of certificates for inland live animal transportation and as far as possible, for the harmonisation thereof.

2.8. Other relevant measures to ensure the traceability of animals. Please see Part A 2.7, and Part B Chapter 4.2. and Chapter 4.4.1.

Part B

1. Identification of the programme

Member State: **Hungary**

Disease: **Infection of animals with zoonotic *Salmonella* spp.**

Animal population covered by the programme: **Breeding flocks of *Gallus gallus***

Year of implementation: **2010**

Reference of this document: **02.3/982/5/2009.**

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Date sent to the Commission: **30th of April, 2009**

2. Historical data on the epidemiological evolution of zoonotic salmonellosis specified in point 1

Monitoring and control programmes for *Salmonella* spp. (*S. Enteritidis* and *S. Typhimurium*) started in Hungary in 1997 by issuing official guidelines for the poultry sector. The goal of the project was to achieve similar targets as which were set by Council Directive 92/117/EEC. The collection of guidelines were ordered by the Ministry of Agriculture and were prepared by an expert group consisting of both Hungarian experts of various backgrounds (Hungarian Academy of Science, National Food Investigation Institute, Central Veterinary Institute and numerous practicing veterinarians) and experts of the Agri-Livestock Consultant Ltd (W. Edel and C. Wray). The work was financed by the PIARE programme of the European Union under project No. 11U 9304-05-02. The programme covered the whole poultry sector in relation of *Gallus gallus*, breeding flocks, hatcheries, broiler flocks, table egg producing layer flocks, egg packaging and distribution establishments, poultry slaughterhouses, cutting plants as well as feed mills. The guidelines stated clearly that there is an urgent need for centralised official administrative measures in the form of a ministerial decree by the Minister of Agriculture.

The first decree was created in the year 2002: Decree 49/2002. (V. 24.) of the Minister of Agriculture and Rural Development on protection against salmonellosis and poultry typhus and on retaining officially free status, and was modified by the Decree 97/2003. (VIII. 19) Minister of Agriculture and Rural Development. A new Decree was created and came into force on the

7th of January, 2008, and can be referred to as Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis (hereinafter: "Decree"). The aim of creating the new Decree was to ensure compliance with the changes in the Community legislation.

The Decree sets the conditions of the obligatory control measures in breeding, laying flocks and voluntary (mandatory from 2009) measures in broiler flocks of *Gallus gallus* against specified *Salmonella* serotypes. As a prerequisite, there is an obligation of the holdings keeping breeding flocks of *Gallus gallus* to be registered by the State Veterinary Service. Results of testing required by the Decree are also to be notified to the Directorate of Food Chain Safety and Animal Health of County Agricultural Office (formerly named: County Animal Health and Food Control Station).

As a result of the above mentioned mandatory control in breeding flocks of *Gallus gallus*, latest data show that infection amongst these flocks is below 6%. However, the Community target which is set by Commission Regulation (EC) of 30 June 2005 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain *Salmonella* serotypes in breeding flocks of *Gallus gallus* and amending Regulation (EC) No 2160/2003 is a maximum of 1%. This goal can only be achieved by a rigorous control programme using extensive professional and financial resources.

3. Description of the submitted programme

The main objective of the programme is to comply with existing Community legislation, to achieve Community prevalence targets within the defined time period available as regards breeding flocks of *Gallus gallus* in the territory of Hungary. The programme covers the five zoonotic *Salmonella* serotypes most relevant in relation to public health (*S. Enteritidis*, *S. Typhimurium*, *S. Infantis*, *S. Virchow* and *S. Hadar*).

Included in the programme are all breeding flocks of *Gallus gallus* registered in the territory of Hungary.

Laboratories involved in the programme must be accredited by the National Accreditation Body (NAT) and supervised by the National *Salmonella* Reference Laboratory (NRL) of the Republic of Hungary (Food and Feed Safety Directorate (formerly named: National Food Investigation Institute), Central Agricultural Office). The NRL will be in charge of coordination of the laboratories, the use of appropriate laboratory methods as well as for co-operation with the Community Reference Laboratory in Bilthoven (NL).

4. Measures of the submitted programme

4.1. Summary of measures under the programme

Duration of the programme:

First year: 2007

Last year: 2009

Control

Eradication

Testing

Testing

- | | |
|---|--|
| <input checked="" type="checkbox"/> Slaughter of positive animals | <input type="checkbox"/> Slaughter of positive animals |
| <input checked="" type="checkbox"/> Killing of positive animals | <input type="checkbox"/> Killing of positive animals |
| <input checked="" type="checkbox"/> Vaccination | <input type="checkbox"/> Extended slaughter or killing |
| <input type="checkbox"/> Treatment | <input type="checkbox"/> Disposal of products |
| <input type="checkbox"/> Disposal of products | |

Monitoring or surveillance

Other measures (*specify*):

- Flocks positive for *S. Typhimurium* or *S. Enteritidis* will be subject to movement control. As soon as the NRL confirms the infection, the flock shall be sent to isolated slaughter. Meat originating from such flocks may only be authorised for human consumption after meeting all relevant food safety requirements as regards of the Regulation (EC) No. 2160/2003, Annex II, Point E.
- Hatching eggs originating from such flocks may only be marketed according to the Regulation (EC) No. 2160/2003, Annex II, Point C.5.
- After emptying the relevant holding operators are required to implement proper cleansing and disinfection. Effectiveness of the procedure is controlled by the competent regional animal health authority. Restocking is only authorised, when cleansing and disinfection is deemed to be satisfactory.

4.2. Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme:

All holdings must be registered at the district veterinary office. The official senior veterinary officer keeps and updates the record of holdings participating the programme. The official senior veterinary officer also declares the status of the holdings according to their actual serological status.

The 19 Directorates of Food Chain Safety and Animal Health of County Agricultural Offices coordinate and supervise the programme in their territory. They are required to annually report the actual status of the programme to the Animal Health and Animal Welfare Directorate of the Central Agricultural Office.

Name:	Central Agricultural Office Animal Health and Animal Welfare Directorate
Name in Hungarian:	Mezőgazdasági Szakigazgatási Hivatal Központ Állategészségügyi és Állatvédelmi Igazgatóság
Address:	1149 Budapest, Fábormok u. 2., Hungary
Tel.:	+36-1-460-6300
Fax:	+36-1-222-6065

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

The programme will be implemented on the whole territory of Hungary. The programme is compulsory as from the 1st January, 2007, the third year of the programme starts as from the 1st January, 2009.

4.4. Measures implemented under the programme

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

Paragraph 3. (3) D) of Decree 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis states that all holdings must be registered.

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

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

According to point 4. c) of Annex 1 to Decree 2/2008 (Protection in breeding flocks of *Gallus gallus*) (hereinafter: “Annex”): “If the salmonella test result is positive, the laboratory shall immediately inform the competent County Agricultural Office and the operator concerned, and simultaneously shall send the isolated salmonella stock together with a sample accompanying document complying with the template issued by Central Agricultural Office to the national reference laboratory operated by the Food and Feed Safety Directorate of Central Agricultural Office for testing and serotyping purposes. The copy of the accompanying document must be kept by the testing laboratory for 3 years.”

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

According to the Annex:

“6. a) If during serotyping the national reference laboratory finds infection of a *Salmonella* serotype, which is not a subject to Regulation 1003/2005/EC the place of keeping of animals must be strictly cleaned and disinfected after the production cycle of the flock.

b) If during serotyping the national reference laboratory finds infection with *Salmonella* Enteritidis or *Salmonella* Typhimurium, in exceptional cases where the competent authority has reasons to suspect false negative results at the first official sampling at the holding, a secondary official confirmatory sampling may be performed, composed of faeces or birds (for the detection of salmonella in organs).

In exceptional cases where the competent authority has reasons to suspect false positive sampling performed at the initiative of the operator at the holding, follow-up official sampling may be performed.

When the secondary official confirmatory test has a negative result, the official senior veterinary officer lifts the movement restriction of the flock and of its products.

7. a) If the result of the repeated test is also positive, or if there is not any repeated test, Part C Annex II to Regulation 2160/2003/EC must be followed. The official senior veterinary officer orders movement restriction of the given flock and its products, and immediately withdraws the official salmonella free certificate. The official certificate of other flocks of the farm may be simultaneously withdrawn, if the isolation of the infected flock is not fully guaranteed. In case of slaughtering the flock is sent to isolated slaughtering after the preliminary agreements with the slaughterhouse and the official senior veterinary officer supervising the slaughterhouse.

b) Processing procedures following the isolated slaughtering must be separated from the processing and handling of other basic materials of animal origin until salmonella is

killed in an efficient and confirmed way, and these must be preliminary consulted with the competent official senior veterinary officer. Wording "Originating from a salmonella positive flock" must be legibly and inerasably indicated on each packaging unit of the food basic material deriving from the isolated slaughter and processing, directly near the identification code and the tracking sign used within the establishment, as well as on the accompanying sales document. Raw material deriving from a positive flock may be used only for preparation of foods and the production process steps shall guarantee the end-product food to be free of salmonella. This must be confirmed with laboratory microbiological test results before marketing of each such food item into retail trade, and the competent supervising official veterinarian must be notified therefore.

- c) After emptying the keeping place of the infected flock the operator must provide for the cleansing of the keeping place (the building, its facilities and equipment, side-rooms and passageways), and for its stringent disinfection as well as rodent and insect control in accordance with legislation in force. The rest of bedding must be disposed in accordance with the relevant legal rule. After taking the necessary steps the operator notifies the County Agricultural Office which controls the efficiency of measures taken.
 - d) Restocking into the airspace concerned is permitted by the County Agricultural Office only if the efficiency of disinfection is found satisfactory by the laboratory test.
 - e) The presence of salmonella in the feed of the infected flock must be immediately tested in accordance with the relevant legal rule. The feed may be given only to the infected flock until the test is negative. If the feed is found infected it must be disposed in accordance with the relevant rule, and facilities used for its storage and transportation must be disinfected. A separate test must be made for the detection of salmonella at the feed operator supplying the feed if infection is detected.
 - f) In hatcheries receiving breeding eggs deriving from an infected flock Points 3 and 5 of Part C of Annex II to Regulation 2160/2003/EC must be followed in the procedure, and the contents of points c)-d) must be properly observed. The hatchery must contribute to the detection of the source of contamination on the basis of its records and bear the costs.
 - g) A new officially salmonella free certificate must be requested in respect of the newly stocked flock, which must be issued on the basis of the consecutive test with a negative result.
8. a) If during serotyping within testing of the sample taken in the hatchery the national reference laboratory finds infection of a Salmonella serotype, which is not a Community target according to Regulation 1003/2005/EC the airspaces concerned must be strictly cleaned and disinfected after hatching in accordance with the relevant legal rule.
- b) If during serotyping within testing of the sample taken in the hatchery the national reference laboratory finds infection with Salmonella Enteritidis or Salmonella Typhimurium, the official senior veterinary officer orders movement restriction in respect of the airspace concerned. All eggs and day-old chicken kept in the airspace concerned must be destroyed in accordance with the relevant legal rule. At the same time the operator running the breeding egg hatchery arranges for a confirmative test in accordance with point d) Part 3. The contents of Part 7 must be followed in respect of the breeding stock in case of a positive test result.

- c) After emptying the infected airspace of the hatchery the operator must provide for the cleansing of the airspace (the building, its facilities and equipment, side-rooms and passage ways), and for its stringent disinfection as well as rodent and insect control in accordance with the relevant legal rule. After taking the necessary steps the operator notifies the County Agricultural Office, which controls the efficiency of measures taken.
- d) Restocking of the airspace concerned is permitted by the regional organ of the County Agricultural Office only if the efficiency of disinfection is found satisfactory on the basis of the laboratory test.
9. a) If during serotyping of the sample with a positive result, taken in the breeding stock or in the hatchery infection with *Salmonella* Hadar, *Salmonella* Infantis or *Salmonella* Virchow is found, the operator revises its epidemic action plan within 30 days, and submits it to the competent County Agricultural Office for re-approval. The revised plan must contain revision of the hygienic conditions, particularly of the disinfection procedures and the efficiency of rodent control, the test results relating to the potential causes of the infection, and also the list of measures considered necessary. The plan is evaluated by the County Agricultural Office within 30 days. If the plan is found unsatisfactory by the County Agricultural Office, the official senior veterinary officer orders a movement restriction of the flock concerned and the hatchery's airspace until the plan is properly modified by the operator.
- b) After the production cycle and the hatching cycle the keeping place of the animals must be strictly cleaned and disinfected in accordance with the relevant legal rule, and in case of the breeding flock point e) Part 7 must be followed in respect of the feed."

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

See point 4.4.4.!

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:

See point 4.4.4.!

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

- Regulation (EC) No. 2160/2003. of the European Parliament and of the Council on the control of *Salmonella* and other food-borne zoonotic agents
- Commission Regulation No. 1003/2005/EC of 30 June 2005 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain *Salmonella* serotypes in breeding flocks of *Gallus gallus* and amending Regulation (EC) No 2160/2003
- Commission Regulation (EC) No 1177/2006 of 1 August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of *Salmonella* in poultry
- Commission Regulation (EC) No 213/2009 of 18 March 2009 amending Regulation (EC) No 2160/2003 of the European Parliament and of the Council and Regulation (EC) No 1003/2005 as regards the control and testing of *Salmonella* in breeding flocks of *Gallus gallus* and turkeys

- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 2/2008. (I. 4.) of the Minister of Agriculture and Rural Development on specific rules of protection against salmonellosis
- Decree No. 41/1997. (V. 28.) of the Minister of Agriculture on Code of Veterinary Rules

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

- Veterinary Act No. XLVI. of 2008. on the food chain and its official control
- Decree No. 38/2009. (IV.8.) Minister of Agriculture and Rural Development on the rules of financing the national programs for the eradication, control and monitoring of certain animal diseases and zoonoses in 2009

5. General description of the costs and benefits:

Costs and benefits are calculated based on the previous year's data of the Poultry Product Board of Hungary. In the case of breeding flocks costs will occur from the intensive sampling of the flocks as well as the tests performed on the samples (including both testing on the initiative of the operator and the veterinary authority), the measures to be applied in the case of infection (slaughter or killing of the flock, condemnation, transportation, cleansing and disinfection) as well as financial losses due to decreased income for the poultry industry.

A detailed description of the costs is listed under point 8.

Benefits in case of the successful programme include improved food safety which largely contributes to the achievement of public health goals of the Community.

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

6.1. Evolution of zoonotic salmonellosis

6.1.1. Data on evolution of zoonotic salmonellosis

Year: 2007

Situation on date: First year of the programme

Animal species: breeding flocks of Gallus gallus Disease/infection^(a): Salmonella Enteritidis and Salmonella Typhimurium

Region (a1)	NUTS code	Type of flock ^(a)	Total number of flocks ^(a)	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked ^(a)	Number of positive ^(a) flocks ^(a)			Number of flocks depopulated ^(a)	Total number of animals slaughtered or destroyed ^(a)	Quantity of eggs destroyed (number or kg) ^(a)	Quantity of eggs channelled to egg products (number or kg) ^(a)
								(a1)	(a2)	(a3)				
Pest (including Budapest)	HU02	Breeding flock	113	323000	113	323000	9	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0
Komárom-Esztergom	HU212	Breeding flock	257	1423558	257	1423558	223	6	0	18 (SI)	6	0	0	0
			89	584600	89	584600	89	1	1	5 (SM)	2	0	0	0
Győr-Ménfőcsanak	HU221	Breeding flock	26	145627	26	145627	16	0	0	0	0	0	0	0
			70	378735	70	378735	45	0	0	1 (SI)	1	0	0	0
Zala	HU223	Breeding flock	24	226000	24	226000	22	0	0	0	0	0	0	0
			51	190120	51	190120	12	0	0	0	0	0	0	0

Somogy	HU232	Breeding flock	4	10900	4	10900	3	0	0	0	0	0	0	0	0	0	0	0
Toľna	HU233	Breeding flock	1	600	1	600	0	0	0	0	0	0	0	0	0	0	0	0
Borsod-Abaťj-Zemlén	HU311	Breeding flock	14	71500	14	71500	3	0	0	0	0	0	0	0	0	0	0	0
Heves	HU312	Breeding flock	9	19500	9	19500	3	0	0	0	0	0	0	0	0	0	0	0
Nógrád	HU313	Breeding flock	4	8200	4	8200	3	0	0	0	0	0	0	0	0	0	0	0
Hajdú-Bihar	HU321	Breeding flock	62	292530	62	292530	44	0	0	0	0	0	0	0	0	0	0	0
Jász-Nagykun-Szolnok	HU322	Breeding flock	12	38600	12	38600	10	0	0	0	0	0	0	0	0	0	0	0
Szabolcs-Szatmar-Bereg	HU323	Breeding flock	51	247100	51	247100	51	1	0	0	0	1	0	0	0	0	0	0
Bács-Kiskun	HU331	Breeding flock	25	186041	25	186041	20	0	0	0	0	0	0	0	0	0	0	0
Békés	HU332	Breeding flock	4	16200	4	16200	4	0	0	0	0	0	0	0	0	0	0	0
Csongrád	HU333	Breeding flock	9	34400	9	34400	5	0	0	0	0	0	0	0	0	0	0	0
Total			825	4197211	825	4197211	562	8	1	24	1	9	0	0	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.

(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.

Animal species: breeding flocks of Gallus gallus

Disease/infection^(a): Salmonella Enteritidis and Salmonella Typhimurium

Region (a1)	NUTS code	Type of flock ^(b)	Total number of flocks ^(c)	Total number of animals under the programme	Number of flocks checked ^(d)	Number of positive ^(e) flocks ^(a)				Total number of animals slaughtered or destroyed ^(a)		Quantity of eggs destroyed (number or kg) ^(a)		Quantity of eggs channelled to egg products (number or kg) ^(a)				
						(a1)	(a2)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)			
Pest (including Budapest)	HU102	Breeding flock	57	106590	15													
Fejér	HU211	Breeding flock	0	0	0													
Komárom-Esztergom	HU212	Breeding flock	283	613363	184													
Veszprém	HU213	Breeding flock	89	316400	20													
Győr-Ménfőcsanak-Sopron	HU221	Breeding flock	35	123200	34													
Vas	HU222	Breeding flock	83	261643	13													
Zala	HU223	Breeding flock	24	165723	24													
Baranya	HU231	Breeding flock	47	272676	33													
Somogy	HU232	Breeding flock	3	9500	3													

Tolna	UU233	Breeding flock	1	460	1	460	1	0	0	0	0	0	0	0	0	0	0
Borsod-Abaúj-Zemplén	UU311	Breeding flock	14	69780	14	69780	12	0	0	0	0	0	0	0	0	0	0
	UU312	Breeding flock	9	20900	9	20900	9	1	0	0	0	0	0	0	0	0	0
Nógrád	UU313	Breeding flock	2	550	2	550	2	0	0	0	0	0	0	0	0	0	0
	UU321	Breeding flock	71	240869	71	240869	52	1	2	0	1	0	900	0	0	0	0
Jász-Nagykanizs	UU322	Breeding flock	9	14360	9	14360	12	0	0	1 S.I.	0	0	0	0	0	0	0
Szabolcs-Szatmár-Bereg	UU323	Breeding flock	60	165334	60	165334	60	0	0	1 S.I.	0	0	0	0	0	0	0
	UU331	Breeding flock	21	130667	21	130667	17	1	1	1 S.I.	0	0	0	0	0	0	0
Békes	UU332	Breeding flock	13	9694	13	9694	13	0	0	0	0	0	0	0	0	0	0
	UU333	Breeding flock	10	3105	10	3105	10	0	0	1 S. Thom.	0	0	0	0	0	0	0
Total			832	2524814	832	2524814	514	6	3	20	1	0	900	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-specify as appropriate, (a4) for *Salmonella* Enteritidis or *Salmonella* Typhimurium.

(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.

Year: 2008.05.30.-12.31.

Situation on date: Second year of the programme

Animal species: breeding flocks of Gallus gallus

Disease/infection^(a): Salmonella Enteritidis and Salmonella Typhimurium

Region (a1)	NUTS code	Type of flock ^(b)	Total number of flocks ^(c)	Total number of animals under the programme	Number of flocks checked ^(d)	Number of positive ^(e) flocks ^(d)				Total number of animals slaughtered or destroyed ^(a)	Quantity of eggs destroyed (number or kg) ^(a)	Quantity of eggs channelled to egg products (number or kg) ^(a)
						(a1)	(a2)	(a3)	(a4)			
Pest (including Budapest)	HU102	Breeding flock	57	106590	57	0	0	0	0	0	0	0
		Breeding flock	0	0	0	0	0	0	0	0	0	0
Komárom-Tiszaeszlár	HU112	Breeding flock	283	613363	283	0	0	0	0	0	0	0
		Breeding flock	89	316400	89	0	0	0	0	0	0	0
Veszprém	HU1213	Breeding flock	35	123200	35	0	0	0	0	0	0	0
		Breeding flock	83	261643	83	0	0	0	0	0	0	0
Győr-Ménfőcsanak-Sopron	HU1221	Breeding flock	24	165723	24	0	0	0	0	0	0	0
		Breeding flock	47	272676	47	2	0	0	2	5749	6381	4662
Vas	HU1222	Breeding flock	83	261643	83	0	0	0	0	0	0	0
		Breeding flock	24	165723	24	0	0	0	0	0	0	0
Zala	HU1223	Breeding flock	47	272676	47	2	0	0	2	5749	6381	4662
		Breeding flock	3	9500	3	0	0	0	0	0	0	0

Tolna	1111233	Breeding flock	1	460	1	460	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Borsod-Abaúj-Zemplén	HU311	Breeding flock	14	69780	14	69780	14	0	0	0	0	0	0	0	0	0	0	0	0	0
	EU312	Breeding flock	9	20900	9	20900	9	0	0	3	0	0	0	0	0	0	0	0	0	0
Nógrád	EU313	Breeding flock	2	550	2	550	2	0	0	0	0	0	0	0	0	0	0	0	0	0
	EU321	Breeding flock	71	240869	71	240869	71	1	0	0	0	0	0	0	0	0	0	0	0	0
Jász-Nagykun-Szolnok	EU322	Breeding flock	9	14360	9	14360	9	0	0	0	0	0	0	0	0	0	0	0	0	0
	EU323	Breeding flock	60	165334	60	165334	60	0	0	0	0	0	0	0	0	0	0	0	0	0
Bács-Kiskun	EU331	Breeding flock	21	130667	21	130667	21	0	0	1 S.I.	0	0	0	0	0	0	0	0	0	0
	EU332	Breeding flock	13	9694	13	9694	13	0	0	0	0	0	0	0	0	0	0	0	0	0
Csongrád	EU333	Breeding flock	10	3105	10	3105	10	0	0	2	0	0	0	0	0	0	0	0	0	0
	Total		832	2524814	832	2524814	832	3	0	24	3	2	5749	12000	6381	0	4662	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-specify as appropriate, (a4) for *Salmonella* Enteritidis or *Salmonella* Typhimurium.

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

7. Targets

7.1. Targets related to testing

7.1.1. Targets on diagnostic tests

Number and specification of tests

Mandatory testing will be performed in all breeding flocks of *Gallus gallus* during their whole life span. A preliminary calculation was made on the approximate number of tests to be performed in the flocks. The number of tests calculated is based on breeding flocks containing more than 250 hens (what is 690 at the moment) and the testing scheme as provided for in the Annex to Commission Regulation No. 1003/2005/EC of 30 June 2005 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain salmonella serotypes in breeding flocks of *Gallus gallus* and amending Regulation (EC) No 2160/2003.

The Annex of the above mentioned Regulation requires all relevant breeding flocks to be tested three times during the rearing period and further testing every second week during the whole production period.

Breeding flocks are kept usually until the age of one year (52 weeks). The production period begins when the flock is 26 weeks of age.

In Hungary, breeding flocks are typically kept in barns which makes the taking of boot swabs the most effective way of detecting possible infection.

Using the above numbers and the testing scheme specified in the Regulation, each breeding flock will be sampled and tested approximately 17 times during a year. During each sampling five pairs of boot swabs will be taken and sent into the laboratory. This means that during a one-year period, 85 pairs of boot swabs will be taken in one flock.

Given that in Hungary there are 690 breeding flocks (~3700000 animals), the total number of samples to be taken in the frame of routine (business) and official sampling is $690 \times 5 \times 17 = 58650$ pairs of boot swabs.

In addition, when a flock is tested positive, confirmatory sampling will take place using 5 pairs of boot swabs and additional birds selected from the flock. Based on latest data from 2008, approximately 1,44% of the flocks infected *Salmonella* Enteritidis or *Salmonella* Typhimurium, 3,24% of the flocks are infected with one or more of the 5 most relevant *Salmonella* serotypes, and 6,7% of the flocks are infected any serotype of *Salmonella*. This means that in 6,7% of the 690 flock (in 46 flocks) positive isolates will need to serotype. In the year 2008 there were 179 positive samples which needed to serotype. Confirmatory tests number will be nearly 20% of the infected flocks and will be required with the testing of 5 pairs of boot swabs, faeces material, birds, etc. each. That gives another $690 \times 0,067 \times 0,2 = 9,246$ sampling, with nearly 30 isolates to serotype. Summary nearly 210 isolates will be needed to serotype.

As a summary, 58650 pairs of boot swabs will take into 29325 isolate (laboratory sample, from them there will be 690X3X5=10350 *official boot swabs*) expected to be tested for the detection of Salmonella spp. Official's samples number will be ~ 10350/2 ±30=5205.

Serotyping will be performed from each positive isolate. Positivity is expected to be detected in 46 flocks, in 2008 nearly 180 positive isolate was serotyped.

However, an exact number of tests which will be performed is not possible, because the time when the flock becomes infected can not predicted.

7.2. Testing scheme

Testing scheme as provided for in the Annex to Commission Regulation No. 1003/2005/EC of 30 June 2005 and 213/2009/EC 18 March 2009 implementing Regulation (EC) No 2160/2003 as regards a Community target for the reduction of the prevalence of certain salmonella serotypes in breeding flocks of Gallus gallus and amending Regulation (EC) No 2160/2003 will be used.

Details of the testing scheme are the following:

1. Sampling frame

The sampling frame shall cover all adult breeding flocks of Gallus gallus comprising at least 250 birds.

2. Monitoring in breeding flocks

2.1. Location, frequency and status of sampling

Breeding flocks shall be sampled at the initiative of the operator and as part of official controls.

2.1.1. Sampling at the initiative of the operator

Sampling shall take place every two weeks at the holding. The detection of relevant salmonella serotypes during the sampling at the initiative of the operator has to be notified without delay to the County Agricultural Office, Directorate of Food Chain Safety and Animal Health by the operator, the sampler or the laboratory performing the analyses.

2.1.2. Official control sampling

Official sampling shall be carried out on three occasions during the production cycle:

- (a) within four weeks following moving to laying phase or laying unit;
- (b) towards the end of the laying phase, not earlier than eight weeks before the end of the production cycle;
- (c) during the production, at any time sufficiently distant from the samples referred to in points (a) and (b).

2.2. Sampling protocol

2.2.1. Routine sampling at the initiative of the operator

Sampling shall primarily consist of faecal samples and shall aim to detect a 1 % within flock prevalence, with 95 % confidence limit. To that effect, the samples shall comprise one of the following:

- (a) Pooled faeces made up of separate samples of fresh faeces each weighing not less than 1 g taken at random from a number of sites in the building in which the birds are kept, or where the birds have free access to more than one building on a particular holding, from each group of buildings on the holding in which the birds are kept. Faeces may be pooled for analysis up to a minimum of two pools.

The number of sites from which separate faeces samples are to be taken in order to make a pooled sample shall be as follows:

Number of birds kept in a building	Number of faeces samples to be taken in the building or group of buildings on the holding
250-349	200
350-449	220
450-799	250
800-999	260
1 000 or more	300

- (b) Five pairs of boot swabs:

Boot swabs used shall be sufficiently absorptive to soak up moisture. Tubegauze 'socks' are also acceptable.

The surface of the boot swab shall be moistened using appropriate diluent (such as 0,8 % sodium chloride, 0,1 % peptone in sterile deionised water, or sterile water).

Walking around shall be done in a manner which will sample representatively all parts of the sector, including littered and slatted areas when slats are safe to walk on. All separate pens within a house shall be included in the sampling. On completion of sampling in the chosen sector, boot swabs must be removed carefully so as not to dislodge adherent material.

The boot swabs may be pooled for analysis into a minimum of two pools.

- (c) In cage breeding flocks, sampling may consist of naturally mixed faeces from dropping belts, scrapers or deep pits, depending on the type of house. Two samples of at least 150 g shall be collected to be tested individually:

- (i) droppings belts beneath each tier of cages which are run regularly and discharged into an auger or conveyor system;
- (ii) droppings pit system in which deflectors beneath the cages are scraped into a deep pit beneath the house;
- (iii) droppings pit system in a step cage house when cages are offset and faeces fall directly into the pit.

There are normally several stacks of cages within a house. Pooled faeces from each stack shall be represented in the overall pooled sample. Two pooled samples shall be taken from each flock as described below.

In systems where there are belts or scrapers, these shall be run on the day of the sampling before sampling is carried out.

In systems where there are deflectors beneath cages and scrapers, pooled faeces which has lodged on the scraper after it has been run, shall be collected.

In step-cage systems where there is no belt or scraper system it is necessary to collect pooled faeces from the deep pit.

Droppings belt systems: pooled faecal material from the discharge ends of the belts shall be collected.

2.2.2. Official sampling

- (a) Routine sampling shall be as described in point 2.2.1.
- (b) Confirmatory sampling following detection of relevant salmonella from sampling at the hatchery shall be carried out as follows.
In addition to the sampling as described in point 2.2.1, the sampling may include a sample of birds taken at random from within each house of birds on the farm, normally up to five birds per house, unless the County Agricultural Office, Directorate of Food Chain Safety and Animal Health deems necessary to sample a higher number of birds. The examination shall consist in a test for research of anti-microbials or of bacterial growth inhibitory effect in samples. A test is considered failed if a positive is found in any of the birds.
In case the presence of relevant salmonella is not detected but anti-microbials or bacterial growth inhibitory effect are, sampling of the flock for relevant salmonella and bacterial growth inhibitory effect shall be repeated until no bacterial growth inhibitory effect is detected, or the breeding flock is destroyed. In the latter case, the breeding flock shall be accounted for as an infected breeding flock for the purpose of the Community target.
- (c) Suspect cases
In exceptional cases where the Central Agricultural Office, Food and Feed Safety Directorate has reasons to suspect false negative results at the first official sampling at the holding, a secondary official confirmatory sampling may be performed, composed of faeces or birds (for the detection of salmonella in organs).
In exceptional cases where the National Food Investigation Institute has reasons to suspect false positive sampling performed at the initiative of the operator at the holding, follow-up official sampling may be performed.

3. Examination of the samples

3.1. Preparation of the samples

3.1.1. Boot swabs samples

- (a) carefully unpack the pair of boot swabs (or 'socks') to avoid dislodging adherent faecal material and place in 225 ml BPW which has been prewarmed to room temperature;
- (b) where five pairs of boot swabs are pooled into two samples, place five individual samples into a minimum of 225 ml BPW and ensure that all the samples are totally immersed in the BPW;
- (c) swirl to fully saturate the sample and continue culture by using the detection method in 3.2.

3.1.2. Other faecal material samples

- (a) at the laboratory place each sample (or pooled sample as appropriate) into an equal weight of Buffered Peptone Water and mix gently;
- (b) allow the sample to soften for 10-15 minutes then mix gently;

- (c) immediately after mixing remove 50 g of the mixture and add to 200 ml of Buffered Peptone Water which has been pre-warmed to room temperature;
- (d) continue culture of the sample by using the detection method in 3.2.

3.2. Detection method

The method recommended by the Community Reference Laboratory for Salmonella in Bilthoven, Netherlands, shall be 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 $41,5 \pm 1$ °C for $2 \times (24 \pm 3)$ hours.

As regards the boot swabs samples and other faecal material samples referred to in paragraph 3.1., it is possible to pool incubated BPW enrichment broth for future culture. To do that, incubate both samples in BPW as normal. Take 1 ml of incubated broth from each sample and mix thoroughly then take 0,1 ml of the mixture and inoculate the MSRV plates in the usual way.

3.3. Serotyping

At least one isolate from each positive sample shall be typed, following the Kaufmann-White scheme.

4. Results and reporting

A breeding flock shall be considered positive for the purpose of verifying the achievement of the Community target, when presence of relevant salmonella (other than vaccine strains) was detected in one or more faecal samples (or if there is a secondary official confirmation, in the relevant faecal samples or birds organ samples), taken at the holding. This shall not apply in exceptional cases of suspect breeding flocks where salmonella detection at the holding at the initiative of the operator was not confirmed by official sampling.

The cumulative results from sampling and testing in breeding flocks at holding level shall be accounted for, i.e. each breeding flock shall be counted only once irrespective of the number of sampling and testing operations. Positive breeding flocks shall be counted only once, irrespective of the number of sampling and testing operations.

Reporting shall include:

- (a) detailed description of the options implemented for the sampling scheme and the type of samples taken, as appropriate;
- (b) number of existing breeding flocks and those tested;
- (c) results of the testing;
- (d) explanations on the results, in particular concerning exceptional cases.

7.3. Targets on vaccination or treatment

Vaccination is not compulsory in breeding flocks of *Gallus gallus*. The rules of using vaccination and treatment are laid down in Commission Regulation (EC) No 1177/2006 of 1

August 2006 implementing Regulation (EC) No 2160/2003 of the European Parliament and of the Council as regards requirements for the use of specific control methods in the framework of the national programmes for the control of salmonella in poultry.

8. Detailed analysis of the cost of the programme

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: modified ISO 6579 (2002) using MSRV planned to be carried out in the framework of official sampling (690*3*5)/2+30 (nearly 5200 official samples)+official sampling of verifying the efficiency of disinfection(690*0,067*2)	5305	10	53050	yes
	Test: serotyping planned to be carried out in the framework of official sampling(690*3*2*0,067)	277	40	11080	yes
1.2. Cost of sampling	costs of sampling of approx. 690 flocks 17 times during 2008 = 11730 + confirmatory testing 10 sampling sessions (one session consists the taking of 5 pairs of swabs)	11740	50	587000	no
1.3. Other costs					
2. Vaccination or treatment					
2.1. Purchase of vaccine	Cost of vaccine of approx. 3,700,000 animals two times	7400000	0.1	760000	yes
Purchase of treatment	Cost of treatment of approx. 60,000 animals according to Art 2 Of Reg 1177/2006	60000	0.2	12000	no
2.2. Distribution costs	Cost of the distribution (approx. 3,700,000 animals)	3700000	0.05	185000	no
2.3. Administering costs	Cost of the administration (approx. 3,700,000 animals)	3700000	0.1	370000	no

2.4. Control costs					
3. Slaughter and destruction					
3.1. Compensation of animals	Cost of compensation of the positive animals approx. $3700,000 \times 0.0324 = 119880$ (SE/ST/SUS/SH infected animals)	119880	7	839160	yes
3.2. Transport costs	Slaughtering of infected flocks can only be authorised when meat from these flocks is treated according to specific food safety legislation. Therefore, slaughter is not likely to be performed at regular contracted slaughterhouses, which makes transport costs much higher than usual, approx. $3000000 \times 0.0324 = 119880$ kg/animal	239760	0.04	9590.4	no
3.3. Destruction costs	Cost of destruction of approx. $3600000 \times 0.0324 = 119880$ animals, 2 kg/animal	239760	0.2	47952	no
3.4. Loss in case of slaughtering	This loss is estimated to be of a large extent. However, losses due to the early slaughter of the flock and the decreased income due to hatching eggs which could not be produced is very hard to estimate.				
3.5 Costs from treatment of products (milk, eggs, hatching eggs, etc)		840000	0,2	168000	no
4. Cleansing and disinfection	When taking into account the number of flocks (690) and the infection rate (with the five relevant serotype) (3,24%), an approximate number of 22 flocks to be cleansed and disinfected can be estimated. Cleansing and disinfection of an average flock depends on several factors, however an approximate amount of costs is given.	22	500	11000	no
5. Salaries (staff contracted for the programme only)					
6. Consumables and specific					

Competent authorities overview

