PROPOSED
VETERINARY CONTROL PROGRAMME
FOR
SALMONELLA IN BREEDING FLOCKS
PRESENTED FOR 2012*
BY
THE NETHERLANDS

* IN ACCORDANCE WITH REGULATION 2160/2003 AND 200/2010

INDEX

PART A

A.a: Aim of the programme

The aim of the programme is to monitor and reduce the prevalence of the following relevant Salmonella serovars: Enteritidis, Typhimurium, Hadar, Infantis and Virchow in breeding flocks of Gallus gallus. The target is to reduce the percentage of adult breeding flocks infected with the five relevant Salmonella serovars to 1% or less.

A.b: Animal population and phases of production which sampling covers

Breeding flocks of Gallus gallus:

- Rearing flocks (day-old chicks, four-weeks-old birds, four weeks before moving to laying phase of laying unit);
- Adult breeding flocks (every second week during the laying period).

A.c: Evidence that programme complies with the specific requirements laid down in Part C of Annex II regulation No 2160 / 2003

With regard to breeding flocks where the competent authority has confirmed an infection with Salmonella Enteritidis or Salmonella Typhimurium the following requirements are implemented in the programme:

- All birds, including day-old chicks, in the flock must be slaughtered or destroyed so as to reduce as much as possible the risk of spreading salmonella. Slaughtering must be carried out in accordance with Community legislation on food hygiene. Products derived from such birds may be placed on the market for human consumption in accordance with Community legislation on food hygiene and, once applicable, part E. If not destined for human consumption, such products must be used or disposed of in accordance with Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption.
- Non-incubated eggs from the flock must be destroyed. Such eggs may be used for human consumption if they are treated in a manner that guarantees the elimination of Salmonella Enteritidis and Salmonella Typhimurium in accordance with Community legislation on food hygiene. Where eggs for hatching from flocks in which Salmonella Enteritidis or Salmonella Typhimurium is present are still present in a hatchery, they must be destroyed or treated in accordance with Regulation (EC) No 1774/2002.

A.d.1: General

A.d.1.1: Short summary referring to the occurrence of Salmonellosis

Regulation (EC) nr 1003/2005 was implemented on 1st January 2007. The results with regard to the occurrence of Salmonella Enteritidis (SE) and Salmonella Typhimurium (ST) in adult breeding flocks were:

• 2007	Grandparent	130 flocks, 0 infections
	Parent broiler	601 flocks, 4 infected flocks (3 SE and 1 Infantis)
	Parent egg	69 flocks, 1 infected flock (Virchow)
• 2008	Grandparent	148 flocks, 0 infections
	Parent broiler	675 flocks, 4 infected flocks (3 SE and 1 ST)
	Parent egg	68 flocks, 0 infections
• 2009	Grandparent	129 flocks, 0 infections
	Parent broiler	662 flocks, 4 infected flocks (3 SE and 1 Infantis)

	Parent egg	59 flocks, 0 infections
• 2010	Grandparent	168 flocks, 0 infections
	Parent broiler	688 flocks, 5 infected flocks (4 SE and 1 ST)
	Parent egg	71 flocks, 1 infected flock (SE)

A.d.1.2: Structure and organization of the relevant competent authorities

In the Netherlands the Product Board for Livestock, Meat and Eggs executes the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation (EL&I) is coordinating this implementation. In Figure 1, all organizations involved are displayed with their mutual connections and their relation to the programme.

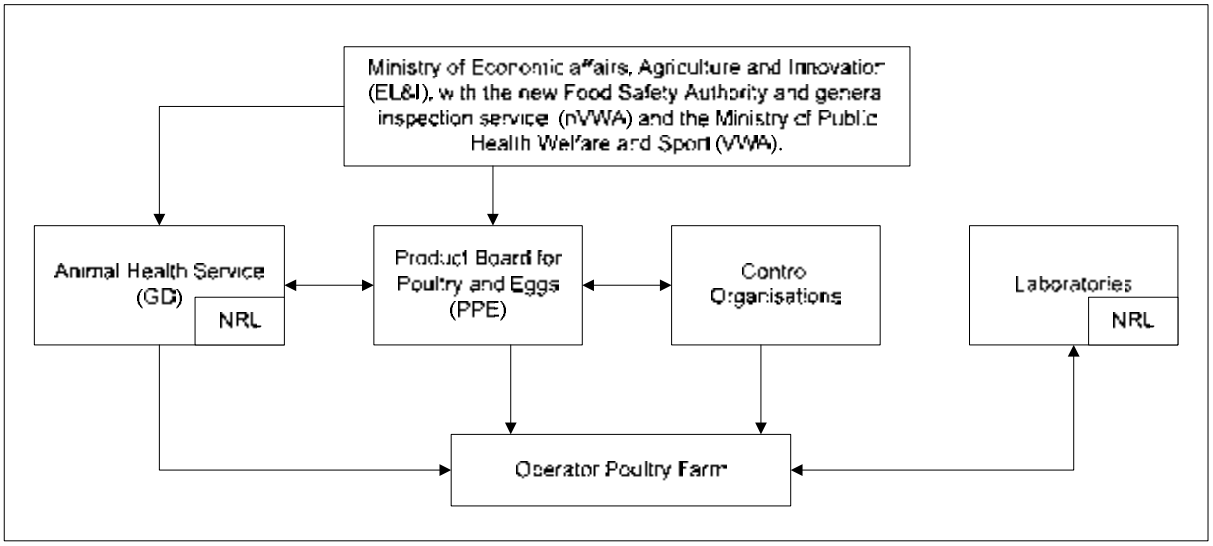

Figure 1: Organizational scheme of the organizations involved in the veterinary control programme for Salmonella in poultry.

1. PPE

The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)

Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA

The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations

The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories
In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the *Salmonella* status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of *Salmonella*). All of the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute for Public Health and the Environment)
The RIVM is the Dutch national reference laboratory for *Salmonella*. The RIVM falls under the Ministry of VWA, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

A.d.1.3: Approved laboratories

Approved laboratories:
1. ALcontrol Food & Water
2. AS Bioconsult
3. Bacteriologisch Adviesbureau
4. Bilacon GmbH
5. C.C.L. – Nutricontrol
6. Demetris DierGezondheid BV
7. DGZ Vlaanderen – locatie Torhout
8. GD
9. Heijs Groep Pluimveeverwerkende Industrie (Lab Heijs/ de Vries)
10. K.B.B.L. Wijhe
11. Lavetan NV
12. Lebensmittel- und veterinärlabor GmbH
13. Lohmann Tierzucht
14. Masterlab BV
15. Plukon Poultry BV
16. ROBA Laboratorium
17. RIVM
18. SGS Laboratory Services
19. Silliker Netherlands BV
20. Storteboom Fresh BV Laboratorium
21. Tierärtzliche Gemeinschaftspraxis WEK
22. Veterinair Centrum Someren

A.d.1.4: Methods used in examination

All the tests used in analysing samples concerning the Actions plans are validated against ISO 6579 (Annex D). Tests are only applicable after approval of the ‘Stuurgroep Laboratoria’, a committee with experts on the field of *Salmonella* analysis (e.g. the NRL, the accreditation council

and the GD). In case of a Salmonella positive sample, serotyping is performed according to the White-Kaufmann-Le Minor scheme.

A.d.1.5: Official controls at feed and flock level

Official sampling is carried out at the holding three times during a production cycle of every breeding flock:
1. within the first 4 weeks
2. within 8 weeks before the end of the production cycle
3. sometime in between the two samples mentioned above.

This shall replace on that occasion the corresponding sampling at the initiative of the operator.

Due to the fact that the Netherlands have reached the community target for breeding flocks in two consecutive years, the official sampling, in accordance with EU Regulation 200/2010, is reduced to two occasions at any times which are sufficiently distant in time from each other during the production cycle of a breeding flock.

A.d.1.6: Measures taken by the competent authorities

With regard to breeding flocks where the competent authority has confirmed an infection with SE or ST the following measures are taken by the competent authority:

- All birds, including day-old chicks, in the flock must be slaughtered or destroyed so as to reduce as much as possible the risk of spreading salmonella. Slaughtering must be carried out in accordance with Community legislation on food hygiene. Products derived from such birds may be placed on the market for human consumption in accordance with Community legislation on food hygiene and, once applicable, part E. If not destined for human consumption, such products must be used or disposed of in accordance with Regulation (EC) No 1774/2002 of the European Parliament and of the Council of 3 October 2002 laying down health rules concerning animal by-products not intended for human consumption.
- Non-incubated eggs from the flock must be destroyed. Such eggs may be used for human consumption if they are treated in a manner that guarantees the elimination of Salmonella enteritidis and Salmonella typhimurium in accordance with Community legislation on food hygiene. If hatching eggs from flocks infected with Salmonella enteritidis or Salmonella typhimurium are still present in a hatchery, they must be destroyed or treated in accordance with Regulation (EC) No 1774/2002.

Preventive measures

50% of the breeding flocks for broiler production and 100% of the breeding flocks for egg production are vaccinated against Salmonella.

A.d.1.7: National legislation relevant to the implementation of the programme

The implementation of the programme is laid down in the PPE Directive 'Verordening Hygiënevoorschriften Pluimveehouderij (PPE) 2007'.

A.d.1.8: Financial assistance provided to food and feed business

There is financial assistance for the purchase of vaccine doses and for compensation of culled breeding flocks (including hatching eggs). This assistance is in accordance with the relevant EU legislation (e.g. Decision EC (No) 470/2009). This financial assistance and the contribution from the Community is approved every year by the Commission when approving the national programmes of the member states. The value and compensation of the birds culled is defined on a central level by the Dutch government institute for agricultural economics (LEI). This information is publicly available.

A.d.2: Food and feed businesses covered by the programme

A.d.2.1: Structure of the production (number of flocks in 2010)

1. Rearing grant parent stock meat production: 108 flocks
2. Rearing grant parent stock egg production: 12 flocks
3. Grant parent stock meat production: 122 flocks
4. Grant parent stock egg production: 46 flocks
5. Rearing parent stock meat production: 441 flocks
6. Rearing parent stock egg production: 65 flocks
7. Parent stock meat production: 688 flocks
8. Parent stock egg production: 71 flocks

A.d.2.2: Structure of the production of feed

Regulations for the production of feed are laid down in the “Kaderwet Diervoeders” by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the “Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005” and the “Besluit PDV Salmonella in de diervoedersector 2005”. For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

Furthermore a quality assurance programme for feed exists in addition to these regulations. This programme is the Good Manufacturing / Managing Practice (GMP) system. When combined with the HACCP principles this quality assurance programme is called GMP+. Almost all feed producers for the poultry chain are GMP+ certified. All IKB certified poultry farmers, i.e. farmers that participate in the voluntary Dutch Integral Chain Control programme, are obligated to use GMP+ certified feed. The GMP+ standards include control measures for base materials, rules for additives, sampling schemes for zoonoses, hygiene and process criteria and compulsory regularly controls by an independent control organization.

A.d.2.3: Relevant guidelines

Relevant guidelines for hygiene management at farms include measures to prevent introduction of pathogens by external sources such as other animals, feed, drinking water, people working at farms and during transport of animals to and from farms.

1. Hygiene management at farms:
    a. No pets, stock or (other) poultry are allowed in the poultry house
    b. If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measures are required (like separate care)
    c. No wild birds can enter the poultry house
    d. Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measures (including special clothing)
    e. Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    f. Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    g. Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    h. The poultry house, the poultry farm and its close environment are clean
    i. Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes

j. The drive- and walking routes to the farm are paved and cleanable
k. The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo's, every silo has a unique number
l. Feed and litter is stored in such a way that it stays clean, dry and mould free
m. Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

A.d.2.4: Routine veterinary supervision of farms

Every farm is inspected at least once a year by a qualified veterinarian on behalf of the competent authority to enforce national legislation (i.e. legislation based on EU Directive 90/593/EC). This visit is not considered as official sampling in the frame of the Salmonella control programme and official sampling is therefore executed in addition to the routine veterinary inspection.

A.d.2.5: Registration of farms

All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation 'Verordening productie van en handel in broedeieren en levend pluimvee (PPE)". All the information is stored in a central database called the "Koppel Informatiesysteem Pluimvee (KIP-system)". This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

A.d.2.6: Record-keeping at farms

- Farm of origin of the animals
- Number of animals
- Date of birth
- Death rate
- Number of produced eggs
- Results of NCD, AI monitoring
- Salmonella measurements including results
- Information about communication of Salmonella results to PPE, GD and hatchery.

A.d.2.7: Documents to accompany animals when dispatched

When animals are dispatched to other farms they are accompanied by a so-called 'P-formulier'. For dispatch to slaughterhouse however a different document called 'VKI – Voedsel Keten Informatie' is demanded. On this document information like Salmonella status of the flock and use of medicine is registered. Operators wishing to export more than 20 birds or hatching eggs to another EU member state (or certain third countries) must comply with EU Directive 90/539/EC and ensure that the consignment is accompanied by a completed and signed Intra-trade Animal Health Certificate (ITAHC) for poultry breeding and production. The ITAHC will also require the reference number of the operator's poultry health certificate.

The ITAHC will be amended to include the results of the last test for *Salmonella* as required in Commission Regulation (EC) 2160/2003 Article 9.1 prior to any dispatching of the live animals, or hatching eggs, from the food business of origin. The relevant health certificates provided for in Community legislation must list the date and result of testing. This certificate must be completed and signed by both the official veterinarian and the operator to confirm compliance with the relevant articles of EU Directive.

A.d.2.8: Other relevant measures to ensure traceability of animals

The TRACES system is managed by the Dutch new Food Safety Authority and General Inspection Service (nVWA). An export can only be approved in TRACES if the official veterinarian has given his approval.

PART B

1. Identification of the programme

Member state:	The Netherlands
Disease:	Infection of poultry breeding flocks with zoonotic Salmonella spp
Year of implementation:	1-1-2007 until 31-12-2012
Reference of this document:	final version
Geographical Area:	The Netherlands
Contact:	J.N. (Hans) Schouwenburg Product Board for Poultry and Eggs, PPE Phone: 0031(0)79 3687937 Fax: 0031(0)79 363 4345 E-mail: hschouwenburg@pve.nl

Date sent to the Commission: 30-04-2011

2. Historical data on the epidemiological evolution of zoonotic salmonellosis

The Netherlands has two programmes to control the prevalence of Salmonella, one for the broiler production chain (which is the basis for this programme) and one for the egg production chain. In this Chapter these two programmes are discussed, together with the infection percentages in the broiler production chain and the egg production chain found in the past years.

2.1 Broiler production

In May 1997 a programme to control the prevalence of Salmonella in poultry was started. The programme that was designed was called “Plan of Approach Salmonella and Campylobacter in the Poultry meat sector 1997” and involved strict hygiene rules as well as monitoring of Salmonella infections throughout the broiler production chain. The programme aimed to decrease the prevalence of Salmonella infections in slaughtered broilers to less than 10% by the year 2000. The actions involved in the programme were obligatory for all broiler production operators (from grandparent flock to slaughterhouse and cutting plant) in the Netherlands, pursuant to the legislation of the PPE.

The effects of the programme were evaluated in January 2000. Even though the monitoring results showed a reduction of the percentage of Salmonella infected broilers after slaughter, in the fourth quarter of 1999 still 16% of the slaughtered broilers were infected with Salmonella. This meant that the initial aim was not achieved. This result led to the formulation of a stricter programme: “Action Plan Salmonella and Campylobacter in the Poultry meat sector 2000^{+}”. In this programme the Dutch broiler industry aims for an elimination of all Salmonella serotypes in poultry meat. This target is thus beyond that of the Zoonoses Directive (2003/2160 EG), as this directive only aims for serotypes with public health significance. Again, the actions involved are obligatory for all broiler operators in the Netherlands.

For the Netherlands a SE/ST-infection percentage of 1%, based on bacteriological results, was determined through an European study by MSs and analysed by EFSA in October 2005–October 2006. This percentage is the starting-point for the current programme. So at this moment the

Netherlands already reached the target mentioned in EG 464/2007 Article 1:*"The Community target, as referred to in Article 1(1) of Regulation (EC) No 646/2007, for the reduction of Salmonella Enteritidis and Salmonella Typhimurium in broilers (Community target) shall be a reduction of the maximum percentage of flocks of broilers remaining positive of Salmonella Enteritidis and Salmonella Typhimurium to 1 % or less by 31 December 2011."*

The effect of implementation of the Action Plan Salmonella and Campylobacter in the Poultry meat sector 2000^{+} is shown in Figures 2 and 3. Figure 2 shows the prevalence of SE and ST as measured in faecal samples taken at Dutch broiler farms between the 4th quarter of 2004 and the 4th quarter of 2010. Figure 3 shows the prevalence of SE and ST as measured in samples of the end product taken at Dutch slaughterhouses for this period.

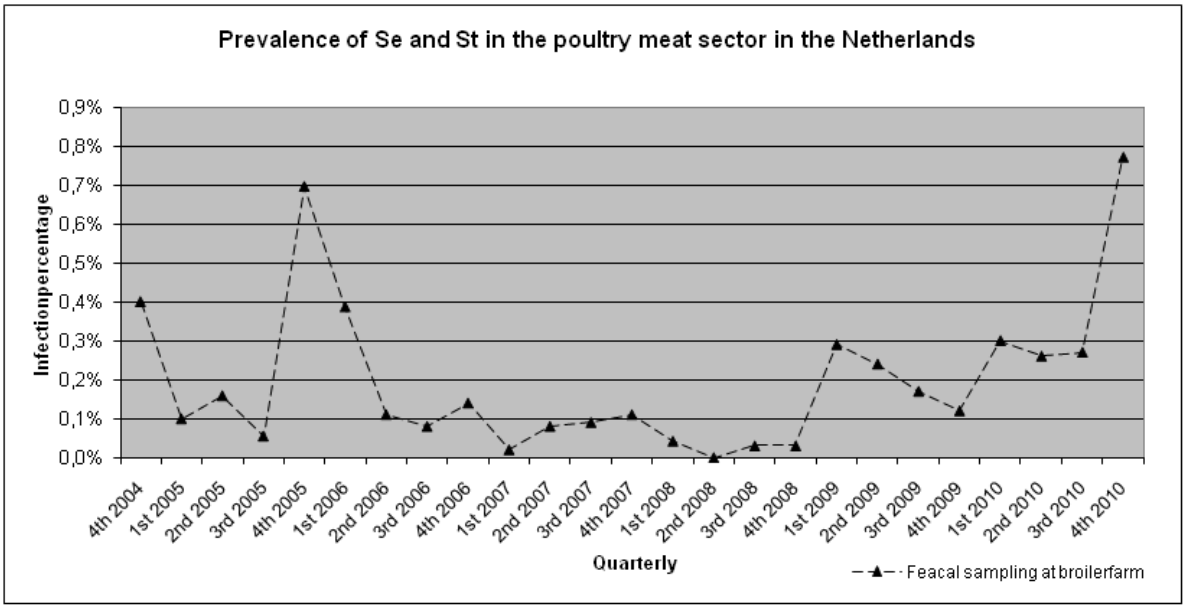

Figure 2: Prevalence of SE and ST in faecal samples taken at broiler farms in the Netherlands from the 4th quarter of 2004 until the 4th quarter of 2010 (source: PPE, 2011).

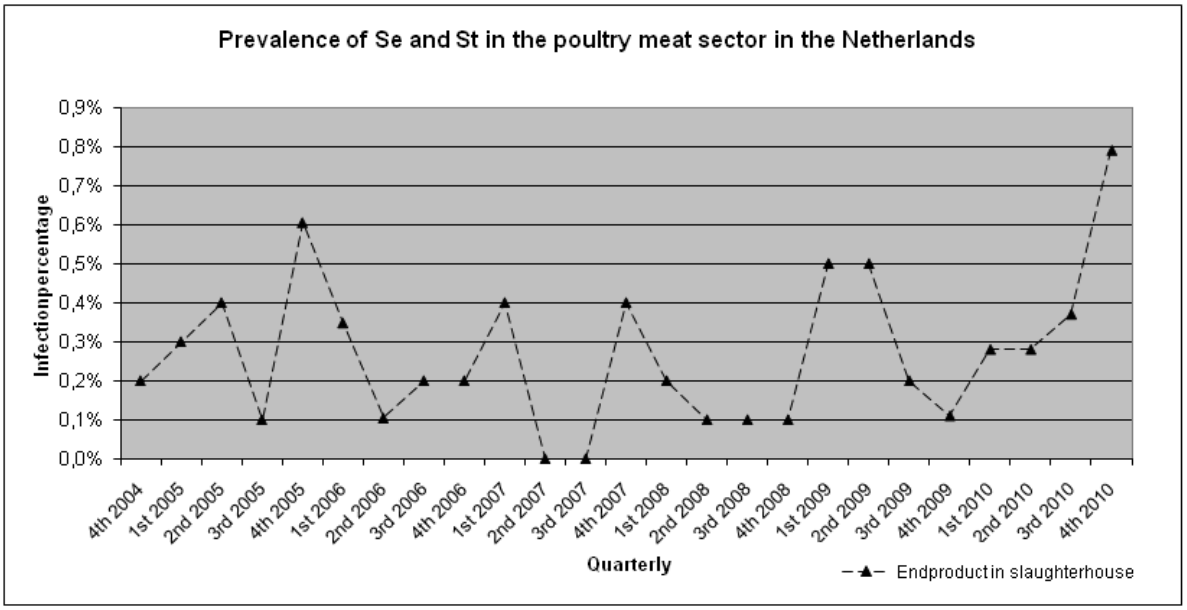

Figure 3: Prevalence of SE en ST in end product sampled in slaughterhouses in the Netherlands from the 4th quarter of 2004 until the 4th quarter of 2010 (source: PPE, 2011).

Figure 2 and 3 cannot be combined in one figure as sampling batches are not comparable. Sampling at the broiler farm is done per poultry house while sampling at the slaughterhouse is done per batch, which can consist of more than one poultry house. Note that in Figure 3 data from flocks from foreign countries that have been slaughtered in the Netherlands is included, as such flocks are also tested for Salmonella at the slaughterhouse.

One of the objectives of the current programme is to monitor the prevalence of all serotypes of Salmonella in all links of the poultry production chain. The following figures and tables show some results of the programme. In Figure 4 and Table 1 the monitoring results for Salmonella spp. throughout the poultry production chain are presented from the 1st quarter of 2000 until the 4th quarter of 2010. Figure 5 shows the different serotypes of Salmonella that have been found in faecal samples taken from the infected flocks in the 4th quarter of 2010. In Table 2 the prevalence of Salmonella spp. in the end products at the slaughterhouse is shown from the 3rd quarter of 2000 until the 4th quarter of 2010. Figure 6 shows the different serotypes of Salmonella that have been found in infected end product samples taken at the slaughterhouse in the 4th quarter of 2010.

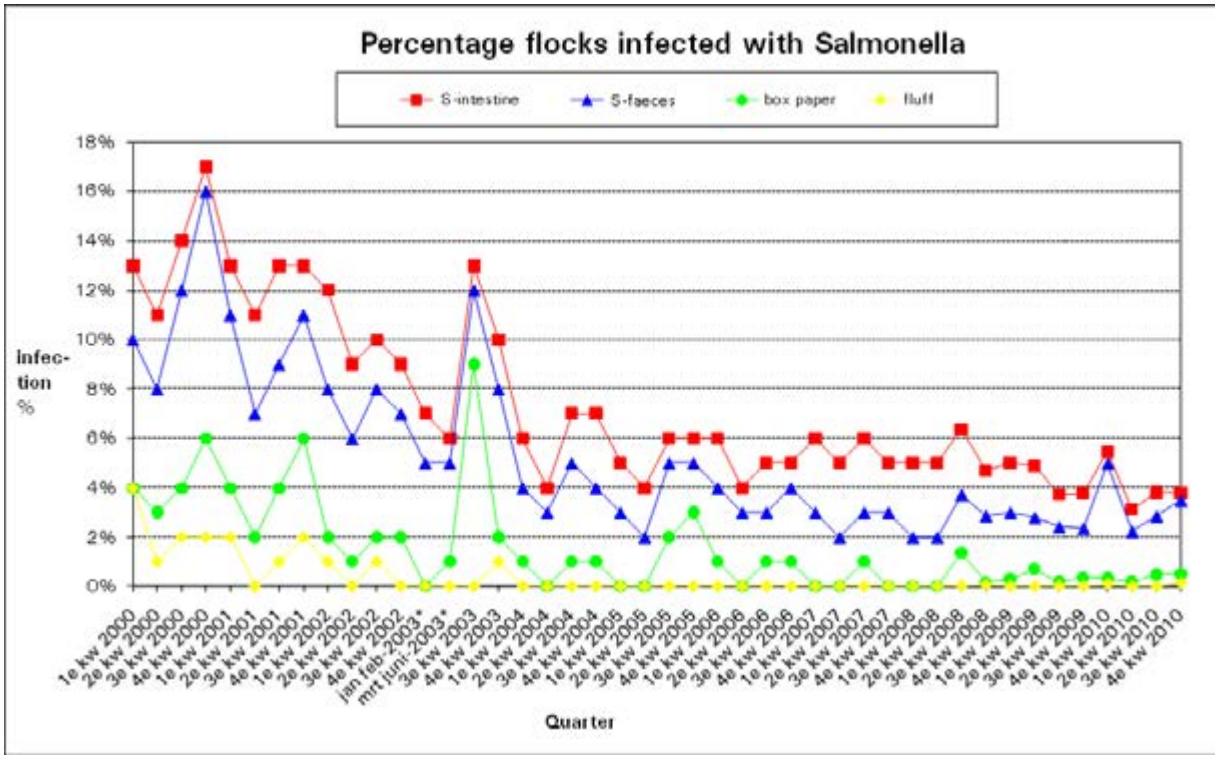

Figure 4: Prevalence of Salmonella spp. in samples taken at different levels in the poultry production chain from the 1st quarter of 2000 until the 4th quarter of 2010. In this figure, fluff represents the percentage of Salmonella positive fluff-samples taken from the hatcheries at the end of the hatching process; box paper is the percentage of Salmonella positive samples taken from the day-old chicken box paper at the broiler farms; S-faeces is the percentage of Salmonella positive faecal samples taken at the broiler farms; and S-intestine is the percentage of Salmonella positive intestine samples taken at the slaughterhouse (Source: PPE, 2011).

Table 1: Prevalence of Salmonella spp. in samples taken at different levels in the poultry production chain from the 1st quarter of 2002 until the 4th quarter of 2010 (source: PPE, 2011). See Figure 4 for explanation of sampling types.

Time Frame	S-intestine	S-faeces	Boxpaper	Fluff
4th quarter 2010	4%	4%	1%	0%
3rd quarter 2010	4%	3%	1%	0%
2nd quarter 2010	3%	2%	0%	0%

1st quarter 2010	6%	5%	0%	0%
4th quarter 2009	4%	2%	0%	0%
3rd quarter 2009	4%	2%	0%	0%
2nd quarter 2009	5%	3%	1%	0%
1st quarter 2009	5%	3%	0%	0%
4th quarter 2008	5%	3%	0%	0%
3rd quarter 2008	6%	4%	1%	0%
2nd quarter 2008	5%	2%	0%	0%
1st quarter 2008	5%	2%	0%	0%
4th quarter 2007	5%	3%	0%	0%
3rd quarter 2007	6%	3%	1%	0%
2nd quarter 2007	5%	2%	0%	0%
1st quarter 2007	6%	3%	0%	0%
4th quarter 2006	5%	4%	1%	0%
3rd quarter 2006	5%	3%	1%	0%

(Table 1 continues on next page)

2nd quarter 2006	4%	3%	0%	0%
1st quarter 2006	6%	4%	1%	0%
4th quarter 2005	6%	5%	3%	0%
3rd quarter 2005	6%	5%	2%	0%
2nd quarter 2005	4%	2%	0%	0%
1st quarter 2005	5%	3%	0%	0%
4th quarter 2004	7%	4%	1%	0%
3rd quarter 2004	7%	5%	1%	0%
2nd quarter 2004	4%	3%	0%	0%
1st quarter 2004	6%	4%	1%	0%
4th quarter 2003	10%	8%	2%	1%
3rd quarter 2003	13%	12%	9%	0%
March till June 2003*	6%	5%	1%	0%
January & February 2003	7%	5%	0%	0%
4th quarter 2002	9%	7%	2%	0%
3rd quarter 2002	10%	8%	2%	1%
2nd quarter 2002	9%	6%	1%	0%
1st quarter 2002	12%	8%	2%	1%

* In this period Avian Influenza problems were overruling the monitoring of Salmonella.

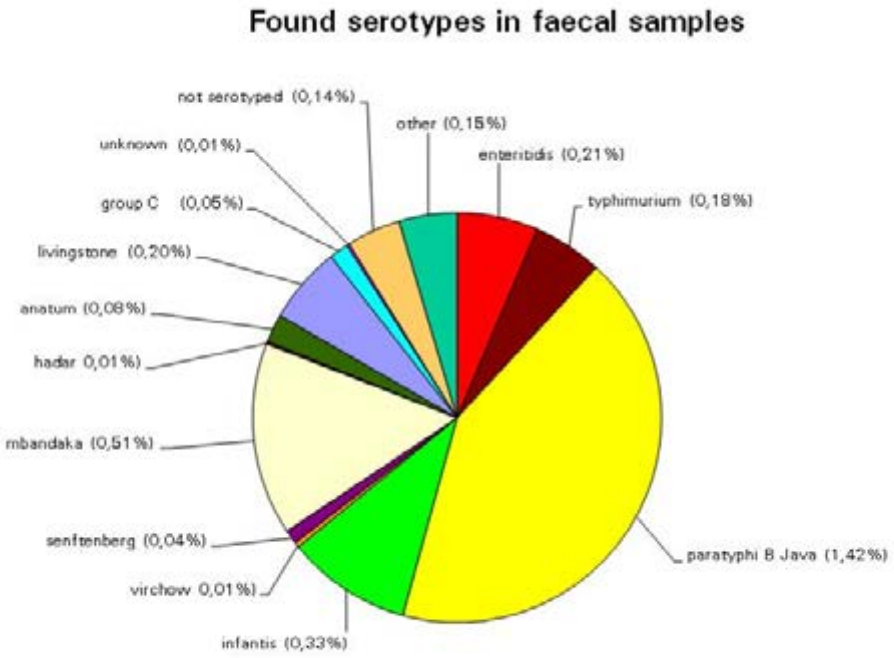

Figure 5: Specification of the different serotypes of Salmonella found in faecal samples taken from the infected flocks in the 4th quarter of 2010 (source: PPE, 2011).

Table 2: Prevalence of Salmonella spp. in samples taken of the end products at slaughterhouses from the 3rd quarter of 2000 until the 4th quarter of 2010 (source: PPE, 2011)

End product	**Salmonella**
4th quarter 2010	5%
3rd quarter 2010	6%
2nd quarter 2010	5%
1st quarter 2010	5%
4th quarter 2009	5%
3rd quarter 2009	6%
2nd quarter 2009	8%
1st quarter 2009	7%
4th quarter 2008	5%
3rd quarter 2008	7%
2nd quarter 2008	6%
1st quarter 2008	6%
4th quarter 2007	8%
3rd quarter 2007	9%
2nd quarter 2007	9%
1st quarter 2007	7%
4th quarter 2006	7%
3rd quarter 2006	7%
2nd quarter 2006	5%
1st quarter 2006	6%
4th quarter 2005	9%

3rd quarter 2005	7%
2nd quarter 2005	5%
1st quarter 2005	7%
4th quarter 2004	7%
3rd quarter 2004	7%
2nd quarter 2004	6%
1st quarter 2004	6%
4th quarter 2003	9%
3rd quarter 2003	15%
March till June 2003*	12%
January & February 2003	9%
4th quarter 2002	9%
3rd quarter 2002	12%
2nd quarter 2002	13%
1st quarter 2002	14%
4th quarter 2001	15%
3rd quarter 2001	17%
2nd quarter 2001	15%
1st quarter 2001	20%
4th quarter 2000	22%
3rd quarter 2000	22%

* In this period Avian Influenza problems were overruling the monitoring of Salmonella.

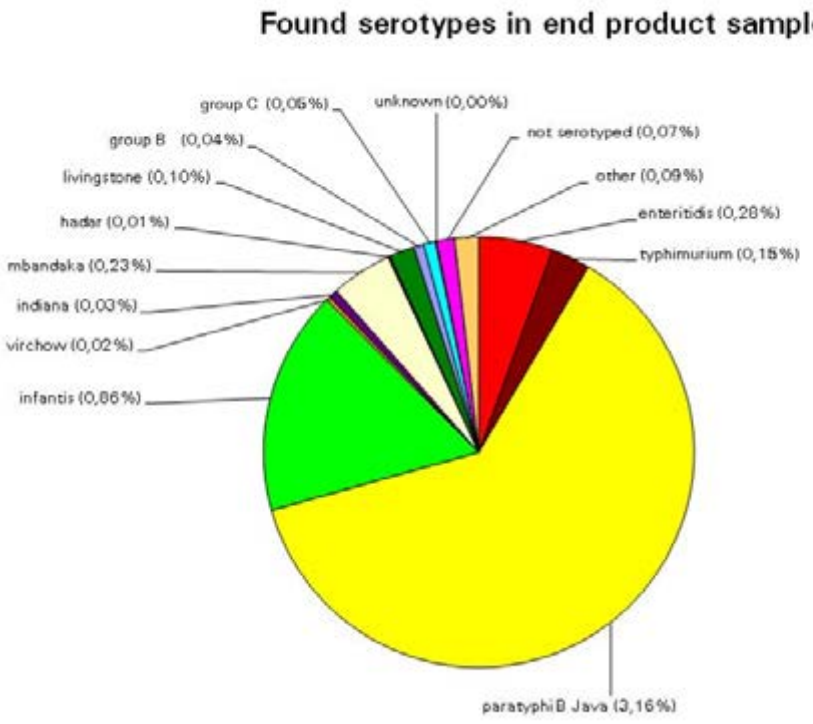

Figure 6: Specification of the different serotypes of Salmonella found in infected end product samples taken at the slaughterhouse in the 4th quarter of 2010 (source: PPE, 2011).

2.2 Egg production

In November 1997 a programme to control the prevalence of Salmonella in laying hens was started; the “Plan of Approach prevention and control of Salmonella in the egg industry 1999”. The objective of this programme was to reduce the SE/ST prevalence in flocks of laying hens to 5

percent or less by November 2000. This programme involved strict hygiene rules and the monitoring of Salmonella infections throughout the egg production chain. However, this objective was not reached, so a new programme was introduced in the beginning of 2001. The aim of this programme, called "Action Plan Salmonella in egg production 2001^{+}", was to strive for a 0+ percent of contaminated eggs. In this stricter approach the eggs of contaminated flocks of laying hens are delivered to the egg product industry, for a special allowed treatment. The actions involved in both programmes were/are obligatory, pursuant to the legislation of the PPE.

Until January 2008 the incidence of SE/ST infections in Dutch flocks of laying hens was monitored by taking blood samples of at least 0.5 percent of every flock (with a minimum of 24 and a maximum of 60 animals) before removal at the end of the production period. The samples were analyzed by the Animal Health Service and reported to the PPE. Table 3 shows the percentage of SE/ST infected layer hen flocks in the period from November 1997 until December 2007. From the 1st of February 2008 the monitoring has changed to bacteriological analysis of faecal samples taken every 15 weeks in accordance with EU Regulation 1168/2006.

Table 3: SE/ST infections in layers, based on serological results obtained from 1997 until 2007 (source: PPE, 2008).

Year	Number of flocks	SE infected	% SE infected	ST infected	% ST infected
1997*	258	35	13,6	2	0,8
1998	1631	181	11,1	6	0,4
1999	1705	181	10,6	3	0,2
2000	2010	229	11,4	6	0,3
2001	1978	177	8,9	4	0,2
2002	1873	165	8,8	7	0,4
2003	864	59	6,8	3	0,3
2004	1500	101	6,7	3	0,2
2005	1952	64	3,3	3	0,2
2006	1878	85	4,5	6	0,3
2007	1870	109	5,8	0	0

*Start of programme November 1997

Over the period from February 1999 to December 2000 11,4 percent of the examined layer flocks tested SE/ST positive. After the introduction of the stricter programme "Action Plan Salmonella in egg production 2001^{+}" the SE/ST-infection percentage, based on serological results, of layers decreased towards 5.8 % in 2007. This might be in part due to the increased use of vaccines against SE of the layers.

For the Netherlands a SE/ST-infection percentage, based on bacteriological results, of 7.8 % was determined through a European study "Analysis of the baseline study on the prevalence of Salmonella in laying hen flocks of Gallus gallus".

From 1st February 2008 EG 1168/2006 was implemented in the Action plan Salmonella in egg production 2001^{+} in the Netherlands. Table 4 shows the results of the bacteriological tests in layer flocks in accordance with the EU-regulation 1168/2006 performed from 2008 onwards. They are in accordance with the Community target set for the Netherlands. In 2009 and 2010 the percentage of SE/ST infected layer flocks was even below the end target of the community of 2%.

Table 4: SE/ST infections in layers, based on bacteriological results from 2008 until 2010 (source: PPE, 2011).

Year	Number of flocks	SE infected	% SE infected	ST infected	% ST infected

2008	2346	61	2,60	1	0,04
2009	2240	29	1,29	4	0,18
2010	2426	26	1,07	0	0

3. Description of the submitted programme

3.1 Target Veterinary Control Programme for breeding flocks

The target for the reduction of Salmonella Enteritidis, Salmonella Hadar, Salmonella Infantis, Salmonella Typhimurium and Salmonella Virchow in breeding flocks of Gallus gallus is a reduction of the maximum percentage of adult breeding flocks comprising at least 250 birds remaining positive to 1 % or less by 1st January 2010. This target is laid down in EU Regulation 200/2010.

3.2 Monitoring of the Veterinary Control Programme

Monitoring is in accordance with EU Regulations 2160/2003 and 200/2010

A. Monitoring through the operator
The test frequency is laid down in the directives of the PPE. Monitoring in breeder flocks is being done according to Table 5. The monitoring will take place at the holding. The operator managing the breeding flock is responsible for the monitoring. In accordance with EU Regulation 200/2010 the monitoring frequency can be reduced to once every 3 weeks if the community target has been met during two consecutive years. The Netherlands has reached this target in 2007 t/m 2010 and reduced the monitoring frequency to once every three weeks (starting 25 October 2009).

B. Official Sampling
Official sampling is being done three times during a production cycle at the holdings:

1. within the first 4 weeks
2. within 8 weeks before the end of the production cycle
3. sometime in between the two samples mentioned above.

This shall replace on that occasion the corresponding sampling at the initiative of the operator.

Due to the fact that the Netherlands have reached the community target for breeding flocks in two consecutive years, the official sampling in accordance with EU Regulation 200/2010, is reduced to two occasions at any times which are sufficiently distant in time from each other during a production cycle.

Table 5: Monitoring in breeder flocks

Part of the production chain	Incoming	Outgoing
Grand parent rearing	day of arrival: box paper (40 pieces) 4 weeks of age: cloacal samples (2×30)	max. 14 days before transfer: faecal samples (6×25)
Grand parent stock	22 –24 weeks of age: faecal samples (2x150) or five pair of boot swabs (two pools)	from 24 weeks of age, every 3 weeks: faecal samples (2x150) or five pair of boot swabs (two pools)[1]
Hatchery		every hatching entity is sampled once: fluff (5x5 g)
Parent rearing	day of arrival: box paper (40 pieces) 4 weeks of age: cloacal samples (2×30) or 5 pair of boot swabs	max. 14 days before transfer: faecal samples (6x25) or 5 pair of boot swabs
Parent stock	22-24 weeks of age: faecal samples (2x150) or five pair of boot swabs (two pools)	from 24 weeks of age, every 3 weeks: faecal samples (2x150) or five pair of boot swabs (two pools)[1]
Hatchery		meat: every hatching entity is sampled once: fluff (5x5 g) laying: every 2 weeks one hatching entity is sampled: fluff (5x5 g)
Meat production		
Broiler farm	day of arrival: box paper (40 pieces)	faecal samples (2×15 samples or two pair of plastic shoes), to be taken from 21 days onwards
Slaughterhouse	faecal samples (small intestine) (1×30)	Breast skin sample (25 grams), every batch filet surface samples (25 grams), one sample / day
Egg Production		
Layer at rearing age	laying: every 2 weeks one hatching entity is sampled: fluff (5x5 g)	max. 14 days before transfer: blood samples (0,5% of the animals in a flock with a min. of 24 and a max. of 60 samples)
Layers		Every 15 weeks (from the age of 24 weeks +/- 2 weeks): samples of faecal material and dust.

[1]Sampling frequency is reduced to once every 3 weeks in accordance with EU Regulation 200/201

3.3 Measures to be taken in case of Salmonella positive findings at the poultry house

Measures to be taken in case of Salmonella positive findings are represented in Table 6 for the broiler production chain and in Table 7 for the egg production chain. When detecting Salmonella in the broiler productions chain, serotyping is always performed. Detection of Salmonella in the egg production chain will lead to serotyping to at least the relevant Salmonella's. Guidelines for the tracing survey are laid down in directives of the PPE.

When necessary to reach the community target culling of breeding flocks (including the destruction or processing of hatching eggs) infected with Salmonella serovars, Virchow, Hadar and Infantis will be compulsory. Recent figures show an increase in the infection numbers of several serovars, e.g. Salmonella Java in the Netherlands. To minimize the risk of vertical transmission through these infections culling of flocks and destruction or processing of hatching eggs can also become compulsory for other Salmonella serovars, e.g. Salmonella Java. Salmonella Java has shown to be extremely persistent on farms that have been infected with this serovar. Therefore every measure has to be considered to prevent the vertical spreading of Salmonella Java including culling of (grand)parent animals and destruction or processing of the hatching eggs. These costs are taken into account in the cost estimate of the programme for 2012 that can be found in Chapter 8.

Table 6: Measures in the broiler production sector in case of Salmonella infection

Part of the production chain	**Measures**
Grant parent rearing/stock	Verification in case of suspicion. When verification results in SE/ST, then culling of the flock. In addition, or when any other type of Salmonella is found, the following steps are compulsory: Tracing survey, under supervision of the veterinarian. Thorough cleaning and disinfection of the house when empty. Swab test, executed by a by the PPE acknowledged company, of the house after cleaning and disinfection. The new flock can only be placed when the swab test was negative. When necessary culling of flocks (including the destruction or processing of hatching eggs) infected with other serovars, e.g. Virchow, Infantis, Hadar, Java can become compulsory.
Hatchery	After verification at the poultry house, hatching eggs from the SE/ST infected flock are destroyed or processed. When necessary for reaching the specified target of the programme PPE can prescribe that hatching eggs from Salmonella infected flocks, other than serotypes SE and ST, are hatched logistically.
Parent rearing/stock	Verification in case of suspicion. When verification results in SE/ST, then culling of the flock. In addition, or when any other type of Salmonella is found, the following steps are compulsory: Tracing survey, under supervision of the veterinarian. Thorough cleaning and disinfection of the house when empty. Swab test, executed by a by the PPE acknowledged company, of the house after cleaning and disinfection. The new flock can only be placed when the swab test was negative. When necessary culling of flocks (including the destruction or processing of hatching eggs) infected with other serovars, e.g. Virchow, Infantis, Hadar, Java can become compulsory.
Hatchery	After verification at the poultry house, hatching eggs from SE/ST infected flocks are destroyed or processed. When necessary for reaching the specified target of the programme PPE can prescribe that hatching eggs from Salmonella infected flocks, other than SE and ST, are hatched logistically.
Broiler farm	Tracing survey in case of Salmonella, under supervision of the veterinarian. After cleaning and disinfection swab and hygiene check, executed by a by the PPE acknowledged company, in the poultry house.
Slaughterhouse	Logistical slaughter of Salmonella infected flocks.

Table 7: Measures in the egg production sector in case of Salmonella infection.

Part of the production chain	**Measures**
Grand parent rearing/stock	When SE/ST are found: Verification in case of suspicion of SE/ST. When verification results in SE/ST, then culling of the flock. When SH, SV or SI are found: Tracing survey under supervision of the veterinarian In addition, or when any other type of Salmonella is found, the following steps are compulsory: Thorough cleaning and disinfection of the house when empty. Swab test, executed by a by the PPE acknowledged company, of the house after cleaning and disinfection. The new flock can only be placed when the swab test was negative. When necessary culling of flocks (including the destruction or processing of hatching eggs) infected with other serovars, e.g. Virchow, Infantis, Hadar can become compulsory.
Hatchery	After verification at the poultry house, SE/ST infected eggs are destroyed or processed. When necessary for reaching the specified target of the programme PPE can prescribe that Salmonella infected eggs, including serotypes SH, SV and SI*, are hatched logistically.
Parent rearing / stock	When SE/ST are found: Verification in case of suspicion of SE/ST. When verification results in SE/ST, then culling of the flock. When SH, SV or SI are found: Tracing survey under supervision of the veterinarian In addition, or when any other type of Salmonella is found, the following steps are compulsory: Thorough cleaning and disinfection of the house when empty. Swab test, executed by a by the PPE acknowledged company, of the house after cleaning and disinfection. The new flock can only be placed when the swab test was negative. When necessary culling of flocks (including the destruction or processing of hatching eggs) infected with other serovars, e.g. Virchow, Infantis, Hadar can become compulsory.
Hatchery	After verification at the poultry house, SE/ST infected eggs are destroyed or processed. When necessary for reaching the specified target of the programme PPE can prescribe that Salmonella infected eggs, including serotypes SH, SV and SI*, are hatched logistically.
Layers rearing	Verification in case of SE/ST suspicion. After verification culling of SE/ST infected flock. Tracing survey in case of SE/ST., under supervision of the veterinarian. After cleaning and disinfection swab and hygiene check, executed by a by the PPE acknowledged company, in the poultry house. The new flock can only be placed when the swab test was negative.

Part of the production chain	Measures
Layers	SE/ST infected eggs to the egg processing industry. After professional cleaning and disinfection swab test, executed by a by the PPE acknowledged company, of the poultry house. The new flock can only be placed when the swab test was negative. Vaccination of the following flocks in the house.

4. Measures of the submitted programme

4.1 Summary of measures under the programme

Duration of the programme:

1. Broiler production: programme runs since 1997, since 2002 adopted co financing for culling of SE / ST infected breeding flocks. The programme has slightly been adjusted due to the requirements laid down in EU Regulations 2160/2003 and 200/2010. The programme is ongoing, at least up to 31-12-2012.
2. Egg production: programme runs since 1997, since 2002 adopted co financing for culling of SE / ST infected breeding flocks. The programme has slightly been adjusted due to the requirements laid down in EU Regulations 2160/2003 and 200/2010. The programme is ongoing, at least up to 31-12-2012.

First year

- ❑ Control:
  - ❑ Testing
  - ❑ Killing of animals tested positive
  - ❑ Destruction or processing of hatching eggs
  - ❑ Vaccination (voluntary)
  - ❑ Treatment of animal products
- ❑ Monitoring or surveillance
- ❑ Other measures:
  - ❑ Hygiene measurements
  - ❑ Cleaning and disinfection
  - ❑ Sampling
  - ❑ Exchange sampling results throughout the chain
  - ❑ Measures taken in case of Salmonella infections

Last year

- ❑ Control:
  - ❑ Testing
  - ❑ Killing of animals tested positive
  - ❑ Destruction or processing of hatching eggs
  - ❑ Vaccination (voluntary)
  - ❑ Treatment of animal products
- ❑ Monitoring or surveillance
- ❑ Other measures:
  - ❑ Hygiene measurements
  - ❑ Cleaning and disinfection
  - ❑ Sampling
  - ❑ Exchange sampling results throughout the chain
  - ❑ Measures taken in case of Salmonella infections

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

In the Netherlands the Product Board for Poultry and Eggs is responsible for the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation is the central authority and supervises this implementation. In Figure 7, all organizations involved are displayed with their mutual connections and their relation to the programme.

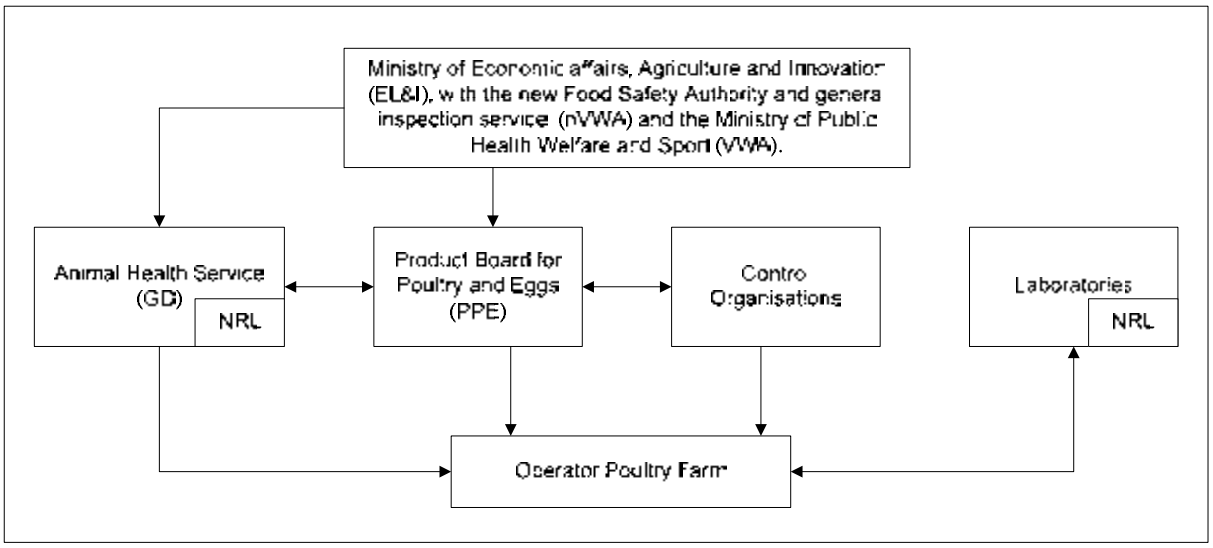

Figure 7: Organizational scheme of the organizations involved in the veterinary control programme for Salmonella in poultry

1. PPE

The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)

Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA

The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations

The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories

In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the *Salmonella* status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of *Salmonella*). All of the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute of Public Health and Environment)
The RIVM is the Dutch national reference laboratory for *Salmonella*. The RIVM falls under the Ministry of VWA, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

7. Structure of the Production of Feed
Regulations for the production of feed are laid down in the "Kaderwet Diervoeders" by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the "Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005" and the "Besluit PDV Salmonella in de diervoedersector 2005". For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

Furthermore a quality assurance programme for feed exists in addition to these regulations. This programme is the Good Manufacturing / Managing Practice (GMP) system. When combined with the HACCP principles this quality assurance programme is called GMP+. Almost all feed producers for the poultry chain are GMP+ certified. All IKB certified poultry farmers, i.e. farmers that participate in the voluntary Dutch Integral Chain Control programme, are obligated to use GMP+ certified feed. The GMP+ standards include control measures for base materials, rules for additives, sampling schemes for zoonoses, hygiene and process criteria and compulsory regularly controls by an independent control organization.

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

Geographical limitations: The Netherlands.

4.4 Measures implemented under the programme

4.4.1 Measures and terms of legislation as regards the registration of the holding

All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation 'Verordening productie van en handel in broedeieren en levend pluimvee (PPE)". All the information is stored in a central database called the "Koppel Informatiesysteem Pluimvee (KIP-system)". This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

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

Not applicable for poultry.

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

In case of a Salmonella infection the laboratory that signalises the first indication/suspicion has to inform the GD (Animal Health Service) and the farmer. After this a further investigation/sampling of the flock (verification) is carried out by the veterinarian of the GD. When the verification

confirms the infection, the PPE and the farmer are informed. If necessary (see chapter 3.3) PPE organises the culling of the infected flock and the destruction or processing of the hatching eggs.

The veterinarian has the obligation to notify Salmonella. This is specified in legislation of the Ministry of Economic Affairs, Agriculture and Innovation, "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".
Directives of the PPE state that the farmer has to notify Salmonella. In most cases the veterinarian will do this for the farmer.

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

The measures that have to be taken in case of a positive result are laid down in directives of the PPE. The Ministry of Economic Affairs, Agriculture and Innovation and the Ministry of Public Health, Welfare and Sport have to approve these directives. All measures are mentioned in Chapter 3. Whenever a positive flock is found by own-check sampling in the frame of the programme in breeding flocks, than this flock should be considered as a suspect flock and movement restrictions are mandatorily imposed on this flock**.** In the frame of the *Salmonella* control programme in breeding flocks of *Gallus gallus* the provisions of paragraph 1 and 2 (frequency of sampling) 4 (results and reporting) of Annex of Commission Regulation (EC) No 200/2010 (particularly provisions on exceptional cases) are implemented

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

Not applicable for poultry.

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

The animals and eggs are transported in sealed transportation equipment. The sealing is carried out by an inspection body. This inspection body also takes care of the counting of all the animals and eggs (in order to check the correct number that can be co financed). The seal is applied at the farm and is removed at the slaughterhouse or destruction company, also by the inspection body.

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

The test frequency is laid down in the directives of the PPE. For technical details on test frequency consult table 5.

Laboratory tests and analyses
The tests that are performed in the Action Plan are:
PVE branche method for Salmonella analysis: this method includes the use of Modified Semi solid Rapport Vassiliadis agar (MSRV) as a selective enrichment medium. The semi solid medium should be incubated at 41.5 °C +/- 1 °C for 48 h. Alternative methods for detection will be permitted (for example Salmonella analysis by PCR), when the methods are approved as valid by the CRL.
In case of a positive finding, serotyping is performed according to the Kaufmann-White scheme.

Salmonella vaccines

In the Netherlands al large number of the parent flocks (egg production sector and broiler production sector) are vaccinated against Salmonella. Grandparent flocks are not vaccinated. There is no central database with information on the number of vaccinated flocks.

In the broiler production sector Salmonella vaccines are used only for parent flocks. Approximately 50% of the parent flocks are vaccinated. In the egg production sector Salmonella vaccines are used for parent flocks and layer flocks. 100% of the parent flocks and 95% of the layer flocks are vaccinated. Only vaccines that are officially registered for use in poultry can be administered, e.g.: Parent flocks: TAD Vac E en Vac T (Lohmann), Gallivac SE (Merial), Nobilis Salenvac T (Intervet). These vaccines comply with the regulations laid down in EU Regulation 1177/2006, Article 3.1 and 3.2.

Antimicrobials
The use of antimicrobials is prohibited except for circumstances laid down in EU Regulation 1177/2006, article 1.

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

Depending on the content of the EU regulations compensation will be given for culling of breeding flocks, destruction or processing of hatching eggs, vaccination of breeding flocks, official analysis. The financial contribution for the farmer and the measures to be taken to receive the contribution are specified in legislation of the Product Board for Poultry and Eggs.

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

Besides the control programme for Salmonella, each flock will be checked once by a veterinarian, in accordance to the GVP-code (Good Veterinarian Practice). This is a Dutch quality code for veterinarians and ensures that the veterinarian has knowledge of poultry (including turkeys).

Each poultry farmer has to comply with the following bio-security measures, laid down in the directive “Verordening Hygiënevoorschriften Pluimveehouderij (PPE) 2007”. All farmers are inspected once a year for compliance with these regulations.

1. Hygiene management at farms:

    c. No pets, stock or (other) poultry are allowed in the poultry house
    d. If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measures are required (like separate care)
    e. No wild birds can enter the poultry house
    f. Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measures (including special clothing)
    g. Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    h. Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    i. Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    j. The poultry house, the poultry farm and its close environment are clean
    k. Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes
    l. The drive- and walking routes to the farm are paved and cleanable
    m. The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo’s, every silo has a unique number
    n. Feed and litter is stored in such a way that it stays clean, dry and mould free

o. Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

Every holding is obligated to inform the packing station where the eggs are transferred, about the Salmonella status of the eggs. This is laid down in the directive “Verordening Hygiënevoorschriften Pluimveehouderij (PPE)”.

In accordance with EU Regulations 852/2004 and 853/2004 Guides for Good Practices are being developed for the poultry sector. In these guides HACCP principles and traceability measures are implemented. The guides for poultry farms are based on the quality system IKB. This quality assurance system for the whole poultry chain is developed in the Netherlands by the PPE. More than 80 % of the poultry farms are currently certified for IKB. IKB standards include hygiene management at farms, measures to prevent incoming infections and the hygienic transportation of animals.

5. General description of the costs and benefits

5.1 Human salmonellosis

The incidence of human Salmonellosis from 1984 until 2010 in the Netherlands, is outlined in Figure 8.

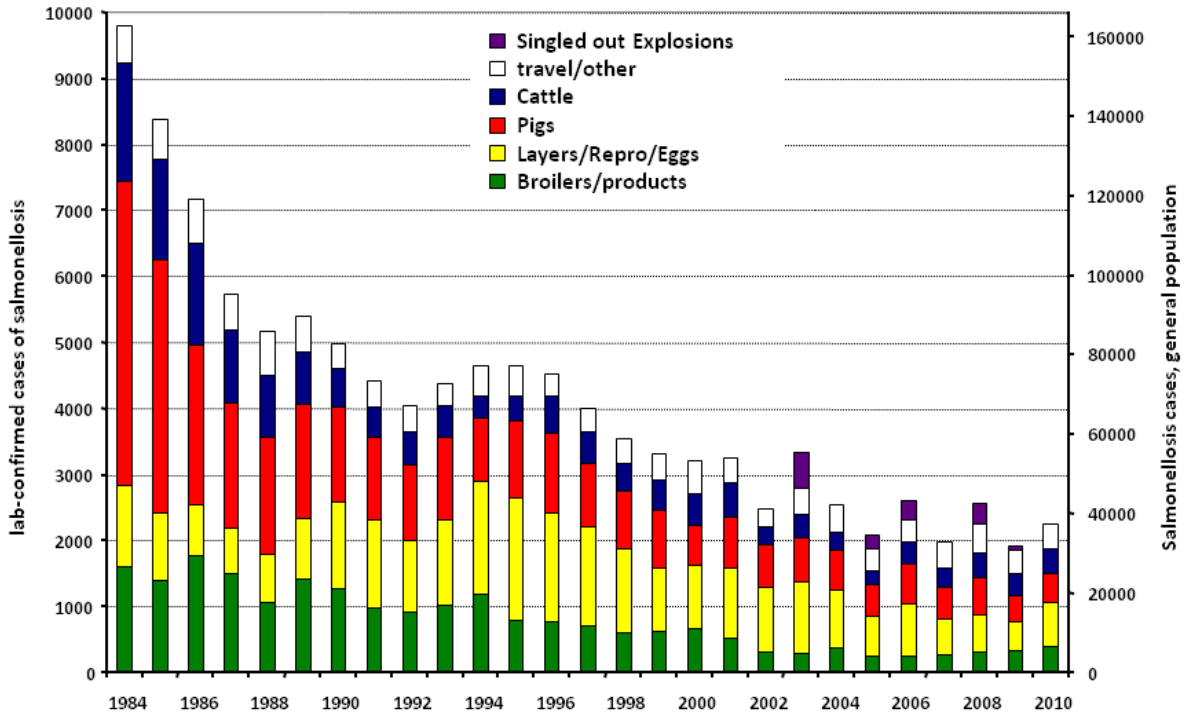

Figure 8: Occurrence of human cases of Salmonellosis in the Netherlands, with Salmonellosis caused by eggs depicted in yellow and Salmonellosis caused by poultry meat in green (source: PPE, 2011)

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

6.1 Evolution of zoonotic salmonellosis

6.1.2. Data on evolution of zoonotic salmonellosis

Year: 2006 **Situation on date:** December 2006
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Grand Parent	159	0,75 million	159	0,75 million	159	1	0	0	1	0	11.000	0	49.416	0	90.000	0
	Parent broiler production	347	3,4 million	347	3,4 million	347	4	1	0	5	0	36.904	0	0	0	78.765	0
	Parent egg production	46	0,4 million	46	0,4 million	46	0	0	0	0	0	0	0	0	0	0	0
Total		552	4,55 million	552	4,55 million	552	5	1	0	6	0	47.904	0	49.416	0	168.765	0

Year: 2007 **Situation on date:** December 2007
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Grand Parent	130	0,7 million	130	0,7 million	130	0	0	0	0	0	0	0	0	0	0	0
	Parent broiler production	601	4,8 million	601	4,8 million	601	4	0	1	4	0	36.000	0	139.000	0	179.000	0
	Parent egg production	69	0,65 million	69	0,65 million	69	0	0	1	0	1	0	1350	0	0	0	0
Total		800	6,15 million	800	6,15 million	800	4	0	2	4	1	36.000	1350	139.000	0	179.000	0

Year: 2008 **Situation on date:** December 2008
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Grand Parent	148	0,7 million	148	0,7 million	148	0	0	0	0	0	0	0	0	0	0	0
	Parent broiler production	675	5,2 million	675	5,2 million	675	3	1	0	4	0	48.000	0	260.000	0	475.000	0
	Parent egg production	68	0,8 million	68	0,8 million	68	0	0	0	0	0	0	0	0	0	0	0
Total		891	6,7 million	891	6,7 million	891	3	1	0	4	0	48.000	0	260.000	0	475.000	0

Year: 2009 **Situation on date:** December 2009
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Grand Parent	129	0,7 million	129	0,7 million	129	0	0	0	0	0	0	0	0	0	0	0
	Parent broiler production	662	5,3 million	662	5,3 million	662	3	0	1	3	0	32.000	0	255.000	0	207.000	0
	Parent egg production	59	0,7 million	59	0,7 million	59	0	0	0	0	0	0	0	0	0	0	0
Total		850	6,7 million	850	6,7 million	850	3	0	1	3	0	32.000	0	255.000	0	207.000	0

Year: 2010 **Situation on date:** December 2010
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Grand Parent	168	0,63 million	168	0,63 million	168	0	0	0	0	0	0	0	0	0	0	0
	Parent broiler production	688	5,5 million	688	5,5 million	688	4	1	0	4	0	36.600	0	148.0000	0	138..500	0
	Parent egg production	71	0,7 million	71	0,7 million	71	1	0	0	1	0	4.000	0	0	0	0	0
Total		927	6,83 million	927	6,83 million	927	5	1	0	5	0	40.600	0	148.000	0	138..500	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.

(a1) Region as defined in the approved control and eradication programme of the Member State.

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

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

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

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

6.2 Stratified data on surveillance and laboratory tests

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

Year: 2008 **Animal species [a]:** poultry **Category[b]:** breeding flocks
Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	35.000	9	N/A	N/A
Total	N/A	N/A	35.000	9	N/A	N/A

Year: 2009 **Animal species [a]:** poultry **Category[b]:** breeding flocks
Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	35.000	16	N/A	N/A
Total	N/A	N/A	35.000	16	N/A	N/A

Year: 2010 **Animal species [a]:** poultry **Category[b]:** breeding flocks
Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	27.000	36	N/A	N/A
Total	N/A	N/A	27.000	36	N/A	N/A

(a) Animal species if necessary.
(b) Category/further specifications such as breeders, laying hens, broilers ,breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc, when appropriate.
(c) Region as defined in the approved control and eradication programme of the Member State.
(d) Number of samples tested.
(e) Number of positive samples.

6.3 Data on infection

Year: 2006 **Animal species[a]::** poultry (breeding flocks)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	6	47.904
Total	6	47.904

Year: 2007 **Animal species[a]::** poultry (breeding flocks)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	5	37.350
Total	5	37.350

Year: 2008 **Animal species[(a)]:** poultry (breeding flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	4	48.000
Total	4	48.000

Year: 2009 **Animal species[(a)]:** poultry (breeding flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	4	32.000
Total	4	32.000

Year: 2010 **Animal species[(a)]:** poultry (breeding flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	6	40.600
Total	6	40.600

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

6.4 Data on vaccination programmes

Year: 2008 **Animal species: [(a)]:** poultry (breeding flocks)

Description of the used vaccination), SG9R (Intervet), TAD Vac E en Vac T (Lohmann), Gallivac SE (Merial), Nobilis Salenvac T (Intervet)

Region[b]	Total number of herds[c]	Total number of animals	Information on vaccination programme			
			Number of herds[c] in vaccination programme	Number of herds[c] vaccinated	Number of animals vaccinated	Number of doses of vaccine administered
Netherlands	891	6,7 million	700	410	3,4 million	7 million
Total	891	6,7 million	700	410	3,4 million	7 million

Year: 2009 **Animal species: [a]:** poultry (breeding flocks)

Description of the used vaccination), SG9R (Intervet), TAD Vac E en Vac T (Lohmann), Gallivac SE (Merial), Nobilis Salenvac T (Intervet)

Region[b]	Total number of herds[c]	Total number of animals	Information on vaccination programme			
			Number of herds[c] in vaccination programme	Number of herds[c] vaccinated	Number of animals vaccinated	Number of doses of vaccine administered
Netherlands	850	6,7 million	720	390	3 million	7 million
Total	850	6,7 million	720	390	3 million	7 million

Year: 2010 **Animal species: [a]:** poultry (breeding flocks)

Description of the used vaccination), SG9R (Intervet), TAD Vac E en Vac T (Lohmann), Gallivac SE (Merial), Nobilis Salenvac T (Intervet)

Region[b]	Total number of herds[c]	Total number of animals	Information on vaccination programme			
			Number of herds[c] in vaccination programme	Number of herds[c] vaccinated	Number of animals vaccinated	Number of doses of vaccine administered
Netherlands	927	6,83 million	760	400	3,4 million	9,1 million
Total	927	6,83 million	760	400	3,4 million	9,1 million

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

7. Targets

7.1 Targets related to testing

7.1.1. Targets on diagnostic tests

Year: 2011 **Animal species:** [a]: poultry (breeding flocks)

Region[b]	Type of the test[c]	Target population [d]	Type of sample[e]	Objective [f]	Number of planned tests
Netherlands	MSRV	Breeding flocks	faeces	monitoring	27.000
Total					27.000

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

7.1.2 Targets on testing flocks

Year: 2012 **Situation on date:** December 2010

Animal species: poultry **infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Expected number of flocks to be checked[(d)]	Number of flocks[(e)] expected to be positive [(a)]			Number of flocks expected to be depopulated[(a)]		Total number of animals expected to be slaughtered or destroyed [(a)]		Expected quantity of eggs to be destroyed (number or kg) [(a)]		Expected quantity of eggs channelled to egg products (number or kg) [(a)]	
							(a1)	(a2)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Grandparent broiler production	122	0,6 million	122	0,6 million	122	1	0	0	1	0	5800	0	40.000	0	40.000	0
	Parent rearing broiler production	441	8 million	441	8 million	441	1	0	2	1	2	19.000	38.000	0	0	0	0
	Parent broiler production	688	5,5 million	688	5,5 million	688	3	0	3	3	3	48.000	48.000	225.000	225.000	225.000	225.000
	Grandparent egg production	46	105.000	46	105.000	46	0	0	0	0	0	0	0	0	0	0	0
	Parent rearing egg production	65	820.000	65	820.000	65	0	0	0	0	0	0	0	0	0	0	0
	Parent egg production	71	740.000	71	740.000	71	1	0	1	1	1	11.400	11.400	80.000	80.000	80.000	80.000
Total		1433	15,8 million	1433	15,8 million	1433	6	0	6	6	6	84.200	97.400	345.000	305.000	345.000	305.000

(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.

7.2 Targets on vaccination

7.2.1. Targets on vaccination [1]

Year: 2012 **Animal species:** [(a)]**:** poultry (breeding flocks)

Region[(b)]	Total number of herds[(c)] in vaccination programme	Total number of animals in vaccination programme	Targets on vaccination programme			
			Number of herds[(c)] in vaccination programme	Number of herds[(c)] expected to be vaccinated	Number of animals expected to be vaccinated	Number of doses of vaccine expected to be administered
Netherlands	927	6,83 million	760	400	3,4 million	9 million
Total	927	6,83 million	760	400	3,4 million	9 million

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

1 Data to provide only if appropriate.

8. Detailed analysis of the costs of the programme

Costs related to	*Specification*	*Number of units*	*Unitary cost in EUR*	*Total amount in EUR*	*Community funding requested (yes/no)*
1. Testing					
1.1. Cost of the analysis	*Test:* Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling	3700	18,39	68.043	No
	Test: Number of serotyping of relevant isolates tests planned to be carried out	200	33,80	6.760	No
1.2. Cost of sampling		1850	104	192.400	No
1.3. Other costs		NA	NA	NA	No
2. Vaccination or treatment of animal products					
2.1. Purchase of vaccine/treatment of animal products					
	Number of purchase of vaccine doses planned if a vaccination policy is part of the programme as set out explicitly under point 4 of Annex II	4 million	0,05	200.000	yes
2.2. Distribution costs		NA	NA	NA	No
2.3. Administering costs		NA	NA	NA	No
2.4. Control costs		NA	NA	NA	No
3. Slaughter and destruction					
3.1. Compensation of animals	Grandparent broiler production (1 flock)	5800	30,65	177.770	yes
	Parent rearing broiler production (1 flock1)	20.000	8,73	175.000	yes
	Parent broiler production (4 flocks)	64.000	10,79	704.000	yes
	Parent egg production (1 flocks)	11.000	11,75	130.000	yes
3.2. Transport costs		NA	NA	NA	No
3.2. Transport costs		NA	NA	NA	No

3.3. Destruction costs		100.000	1	100.000	yes
3.4. Loss in case of slaughtering		NA	NA	NA	No
3.5 Costs from treatment of animal products (milk, eggs, hatching eggs, etc)	Grandparent	80.000	1,05	84.000	yes
	Parent	0,6 million	0,20	120.000	yes
4. Cleaning and disinfection		NA	NA	NA	No
5. Salaries (staff contracted for the programme only)		NA	NA	NA	No
6. Consumables and specific equipment		NA	NA	NA	No
7. Other costs		Na	NA	NA	No
TOTAL					

TOTAL COSTS REQUESTED FOR COMMUNITY FUNDING IN 2012 FOR BREEDING FLOCKS

	Total costs	**Request community funding (=50%)**
Costs of vaccination (2.1)	€ 200.000	€ 100.000
Compensation of eradicated animals (3.1)	€ 1.200.000	€ 600.000
Destruction costs (3.3)	€ 100.000	€ 50.000
Costs from treatment of animal products (3.5)	€ 200.000	€ 100.000
total	€ 1.700.000	€ 850.000

The Netherlands confirm that all measures mentioned in Table 8 for which we ask for co-financing are fundable according to current national rules

Annex to the Veterinary Control Programme for Salmonella in Breeding Flocks presented for 2012 by the Netherlands

The control programme complies with the specific requirements laid down in Part C of Annex II to regulation (EC) No 2160/2003.
Measures are carried out in accordance with Commission Regulation (EC) No 200/2010 implementing legislation of Regulation (EC) No 2160/2003 in breeding flocks including requirements of testing (details on types of samples, sampling frequency, preparation of samples, laboratory, methods of analysis, reporting of results etc.).

PROPOSED
VETERINARY CONTROL PROGRAMME
FOR

SALMONELLA IN BROILERS
PRESENTED FOR 2012*

BY
THE NETHERLANDS

*In accordance with Regulation (EG) 2160/2003 and (EG) 646/2007

2011-424-N0032a

INDEX

PART A

A.a: Aim of the programme

The aim of the programme is to monitor and reduce the prevalence of Salmonella Enteritidis and Salmonella Typhimurium in broiler flocks of Gallus gallus. The target is to reduce the percentage of broiler flocks infected with Salmonella Enteritidis and Salmonella Typhimurium to 1% or less.

A.b: Animal population and phases of production which sampling covers

Broilers – birds leaving for slaughter

A.c: Evidence that programme complies with requirements laid down in Part E of Annex II regulation No 2160 / 2003

The requirements laid down in part E of Annex II of Regulation No 2160/2003 will come into force from 1st December 2011. From that date onwards fresh poultry meat from broilers may not be placed on the market for human consumption unless it meets the following criterion: 'Salmonella Enteritidis / Salmonella Typhimurium: absence in 25 grams'

A.d.1: General

A.d.1.1: Short summary referring to the occurrence of Salmonellosis

Regulation 646 / 2007 was implemented on 1st January 2009. In 2010 the total number of flocks slaughtered was 18036, of which 34 flocks were tested positive for Salmonella Enteritidis (SE), and 23 flocks were tested positive for Salmonella Typhimurium (ST). From 2010 onwards a flock is defined as a "slaughter flock", i.e. all animals from the same house that are slaughtered at the same date in the same slaughterhouse.

A.d.1.2: Structure and organization of the relevant competent authorities

In the Netherlands the Product Board for Poultry and Eggs executes the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation (EL&I) is coordinating this implementation. In Figure 1, all organizations involved are displayed with their mutual connections and their relation to the programme.

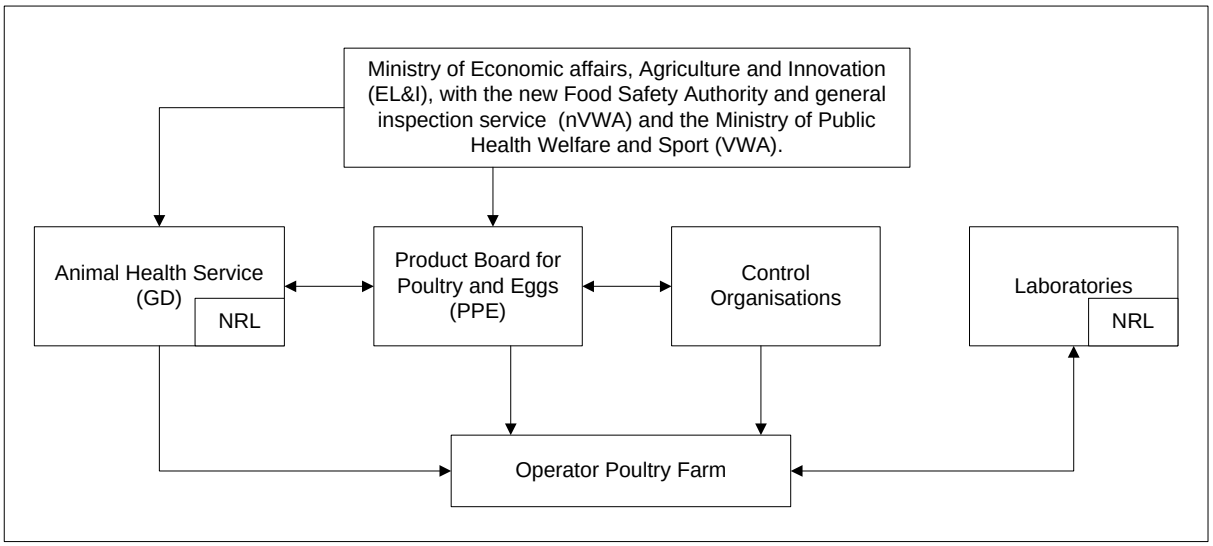

Figure 1: Organizational scheme of the organizations involved in the programme concerning the control of Salmonella in poultry

1. PPE

The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)

Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA

The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations

The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories

In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the Salmonella status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of Salmonella). All of the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke

dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute for Public Health and the Environment)
The RIVM is the Dutch national reference laboratory for Salmonella. The RIVM is part of the Ministry of VWS, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

A.d.1.3: Approved laboratories

Approved laboratories:
1. ALcontrol Food & Water
2. AS Bioconsult
3. Bacteriologisch Adviesbureau
4. Bilacon GmbH
5. C.C.L. – Nutricontrol
6. Demetris DierGezondheid BV
7. DGZ Vlaanderen – locatie Torhout
8. GD
9. Heijs Groep Pluimveeverwerkende Industrie (Lab Heijs/ de Vries)
10. K.B.B.L. Wijhe
11. Lavetan NV
12. Lebensmittel- und veterinärlabor GmbH
13. Lohmann Tierzucht
14. Masterlab BV
15. Plukon Poultry BV
16. ROBA Laboratorium
17. RIVM
18. SGS Laboratory Services
19. Silliker Netherlands BV
20. Storteboom Fresh BV Laboratorium
21. Tierärtzliche Gemeinschaftspraxis WEK
22. Veterinair Centrum Someren

A.d.1.4: Methods in Examination

All the tests used in analysing samples concerning the Actions plans are validated against ISO 6579 (Annex D). Tests are only applicable after approval of the ‘Stuurgroep Laboratoria’, a committee with experts on the field of Salmonella analysis (e.g. the NRL, the accreditation council and the GD). In case of a Salmonella positive sample, serotyping is performed according to the White-Kaufmann-Le Minor scheme.

A.d.1.5: Official controls at feed and flock level

Official sampling is performed by GD, once a year at 10% of the broiler farms. This official sampling will be risk based, but the decision of which specific risk factor demands extra attention will be made in line with the situation at hand. The aim of official sampling is to provide additional control of the monitoring results at the broiler farm. When the selected risk group does not reach 10% of the total number of broilers farms in the Netherlands a random selection will take place to supplement the group until 10%. Official sampling replaces monitoring by the operator.

A.d.1.6: Measures taken by the competent authorities

Measures to be taken in case of Salmonella positive findings in broilers are:
a) swab check executed by a by the PPE acknowledged company in the poultry house after cleaning and disinfection.
b) in case of a positive swab result the poultry house has to be cleaned and disinfected by a professional company after the next round.
c) tracing survey under supervision of a veterinarian.
d) in case of a Salmonella Java infection the farmer has to take some additional measures compared with an infection of another serotype, especially when there have been two or three Salmonella Java infections in a row. These extra measures are cleaning of the feeding system, keeping the poultry house empty for at least 10 days for thorough cleaning and disinfection, and additional sampling to monitor Salmonella.

The PPE is designing additional measures to eradicate SE/ST infections. These additional measures will largely resemble the measures in place for Salmonella Java infections, and are expected to be implemented in 2012.

A.d.1.7: National legislation relevant to the implementation of the programme

The implementation of the programme is laid down in the PPE Directive 'Verordening Hygiënevoorschriften Pluimveehouderij (PPE) 2007'.

A.d.1.8: Financial assistance provided to food and feed business

In 2011 there is no financial assistance for broiler flocks. For 2012 financial assistance from the EU is requested for compensation of the depreciation of meat derived from SE/ST infected broiler flocks. From 1st December 2011 new EU regulations prescribe that this meat cannot be marketed as fresh poultry meat, but must receive heat treatment. This leads to a decrease in value of the meat. Compensation for the loss of value is already possible in the cases of breeding or laying flocks to be culled and hatching and table eggs to be destroyed due to a Salmonella infection (e.g. Commission Decision No 2010/712). In our opinion financial assistance to compensate the loss of value due to compulsory heat treatment of meat of broiler flocks infected with SE/ST is completely in line with the above mentioned assistance for breeding and laying flocks. The value and level of compensation required for the poultry meat will be defined on a central level by the Dutch government institute for agricultural economics (LEI).

A.d.2: Food and feed businesses covered by the programme

A.d.2.1: Structure of the production of broilers

1. Rearing grant parent stock: 108 flocks in 2010
2. Grant parent stock: 122 flocks in 2010
3. Rearing parent stock: 441 flocks in 2010
4. Parent stock: 688 flocks in 2010
5. Broilers: 18036 flocks in 2010

A.d.2.2: Structure of the production of feed

Regulations for the production of feed are laid down in the “Kaderwet Diervoeders” by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the “Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005” and the “Besluit PDV Salmonella in de diervoedersector 2005”. For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

Furthermore a quality assurance programme for feed exists in addition to these regulations. This programme is the Good Manufacturing / Managing Practice (GMP) system. When combined with the HACCP principles this quality assurance programme is called GMP+. Almost all feed producers for the poultry chain are GMP+ certified. All IKB certified poultry farmers, i.e. farmers that participate in the voluntary Dutch Integral Chain Control programme, are obligated to use GMP+ certified feed. The GMP+ standards include control measures for base materials, rules for additives, sampling schemes for zoonoses, hygiene and process criteria and compulsory regularly controls by an independent control organization.

A.d.2.3: Relevant guidelines

Relevant guidelines for hygiene management at farms include measures to prevent introduction of pathogens by external sources such as other animals, feed, drinking water, people working at farms and during transport of animals to and from farms.

1. Hygiene management at farms:
    a. No pets, stock or (other) poultry are allowed in the poultry house.
    b. If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measures are required (like separate care).
    c. No wild birds can enter the poultry house.
    d. Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measures (including special clothing).
    e. Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months.
    f. Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted.
    g. Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves.
    h. The poultry house, the poultry farm and its close environment are clean.
    i. Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes.
    j. The drive- and walking routes to the farm are paved and cleanable.
    k. The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo’s, every silo has a unique number.
    l. Feed and litter is stored in such a way that it stays clean, dry and mould free.
    m. Every poultry house has a hand-washing facility.

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected.
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company.

For broiler farms and slaughterhouses some additional measures are in place:

3. In case of a Salmonella Java infection the farmer has to take some additional measures compared with an infection of another serotype, especially when there have been two or three Salmonella Java infections in a row. These extra measures are cleaning of the feeding

system, keeping the poultry house empty for at least 10 days for thorough cleaning and disinfection, and additional sampling to monitor Salmonella.

4. Slaughterhouses take special measures to clean and inspect trucks and containers used to transport broilers from farm to slaughterhouse.

A.d.2.4: Routine veterinary supervision of farms

Every farm is inspected at least once a year by a qualified veterinarian on behalf of the competent authority to enforce national legislation (i.e. legislation based on EU Directive 90/593/EC). This visit is not considered as official sampling in the frame of the Salmonella control programme and official sampling is therefore executed in addition to the routine veterinary inspection.

A.d.2.5: Registration of farms

All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation ‘Verordening productie van en handel in broedeieren en levend pluimvee (PPE)”. All the information is stored in a central database called the “Koppel Informatiesysteem Pluimvee (KIP-system)”. This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

A.d.2.6: Record-keeping at farms

- Hatchery
- Number of animals
- Death rate
- Salmonella measurements including result
- Date of birth
- Date of slaughter
- Communication of Salmonella information to PPE and slaughterhouses.

A.d.2.7: Documents to accompany animals when dispatched

When animals are dispatched to other farms they are accompanied by a so-called ‘P-formulier’. For dispatch to slaughterhouse however a different document called ‘VKI – Voedsel Keten Informatie’ is demanded. On this document information like Salmonella status of the flock and use of medicine is registered. Operators wishing to export more than 20 birds or hatching eggs to another EU member state (or certain third countries) must comply with EU Directive 90/539/EC and ensure that the consignment is accompanied by a completed and signed Intra-trade Animal Health Certificate (ITAHC) for poultry breeding and production. The ITAHC will also require the reference number of the operator’s poultry health certificate.

The ITAHC will be amended to include the results of the last test for Salmonella as required in Commission Regulation (EC) 2160/2003 Article 9.1 prior to any dispatching of the live animals, or hatching eggs, from the food business of origin. The relevant health certificates provided for in Community legislation must list the date and result of testing. This certificate must be completed and signed by both the official veterinarian and the operator to confirm compliance with the relevant articles of EU Directive.

A.d.2.8: Other relevant measures to ensure traceability of animals

The TRACES system is managed by the Dutch new Food Safety Authority and General Inspection Service (nVWA). An export can only be approved in TRACES if the official veterinarian has given his approval.

PART B

1. Identification of the programme

Member state: The Netherlands

Disease: Infection of broilers with zoonotic Salmonella spp

Year of implementation: 1-1-2009 until 31-12-2012

Reference of this document: final version

Geographical Area: The Netherlands

Contact:
Ir. J.N. (Hans) Schouwenburg
Product Board for Poultry and Eggs, PPE
Phone: 0031(0)79 368 7937
Fax: 0031(0)79 363 4345
E-mail: hschouwenburg@pve.nl

Date sent to the commission: 30-04-2011

2. Historical data on the epidemiological evolution of zoonotic Salmonellosis

The Netherlands has two programmes to control the prevalence of Salmonella, one for the broiler production chain (which is the basis for this programme) and one for the egg production chain. In this Chapter these two programmes are discussed, together with the infection percentages in the broiler production chain and the egg production chain found in the past years.

2.1 Broiler production

In May 1997 a programme to control the prevalence of Salmonella in poultry was started. The programme that was designed was called “Plan of Approach Salmonella and Campylobacter in the Poultry meat sector 1997” and involved strict hygiene rules as well as monitoring of Salmonella infections throughout the broiler production chain. The programme aimed to decrease the prevalence of Salmonella infections in slaughtered broilers to less than 10% by the year 2000. The actions involved in the programme were obligatory for all broiler production operators (from grandparent flock to slaughterhouse and cutting plant) in the Netherlands, pursuant to the legislation of the PPE.

The effects of the programme were evaluated in January 2000. Even though the monitoring results showed a reduction of the percentage of Salmonella infected broilers after slaughter, in the fourth quarter of 1999 still 16% of the slaughtered broilers were infected with Salmonella. This meant that the initial aim was not achieved. This result led to the formulation of a stricter programme: “Action Plan Salmonella and Campylobacter in the Poultry meat sector 2000^{+}”. In this programme the Dutch broiler industry aims for an elimination of all Salmonella serotypes in poultry meat. This target is thus beyond that of the Zoonoses Directive (2003/2160 EG), as this directive only aims for serotypes with public health significance. Again, the actions involved are obligatory for all broiler operators in the Netherlands.

For the Netherlands a SE/ST-infection percentage of 1%, based on bacteriological results, was determined through an European study by MSs and analysed by EFSA in October 2005–October

2006. This percentage is the starting-point for the current programme. So at this moment the Netherlands already reached the target mentioned in EG 464/2007 Article 1:

"The Community target, as referred to in Article 1(1) of Regulation (EC) No 646/2007, for the reduction of Salmonella Enteritidis and Salmonella Typhimurium in broilers (Community target) shall be a reduction of the maximum percentage of flocks of broilers remaining positive of Salmonella Enteritidis and Salmonella Typhimurium to 1 % or less by 31 December 2011."

The effect of implementation of the Action Plan Salmonella and Campylobacter in the Poultry meat sector 2000[+] is shown in Figures 2 and 3. Figure 2 shows the prevalence of SE and ST as measured in faecal samples taken at Dutch broiler farms between the 4th quarter of 2004 and the 4th quarter of 2010. Figure 3 shows the prevalence of SE and ST as measured in samples of the end product taken at Dutch slaughterhouses for this period.

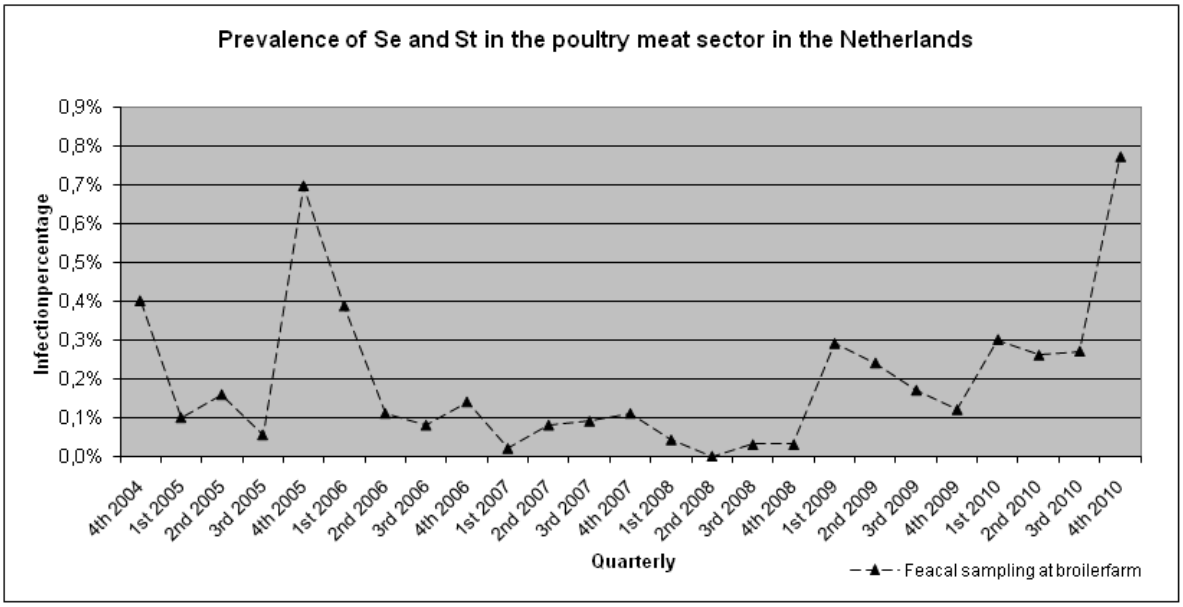

Figure 2: Prevalence of SE and ST in faecal samples taken at broiler farms in the Netherlands from the 4th quarter of 2004 until the 4th quarter of 2010 (source: PPE, 2011).

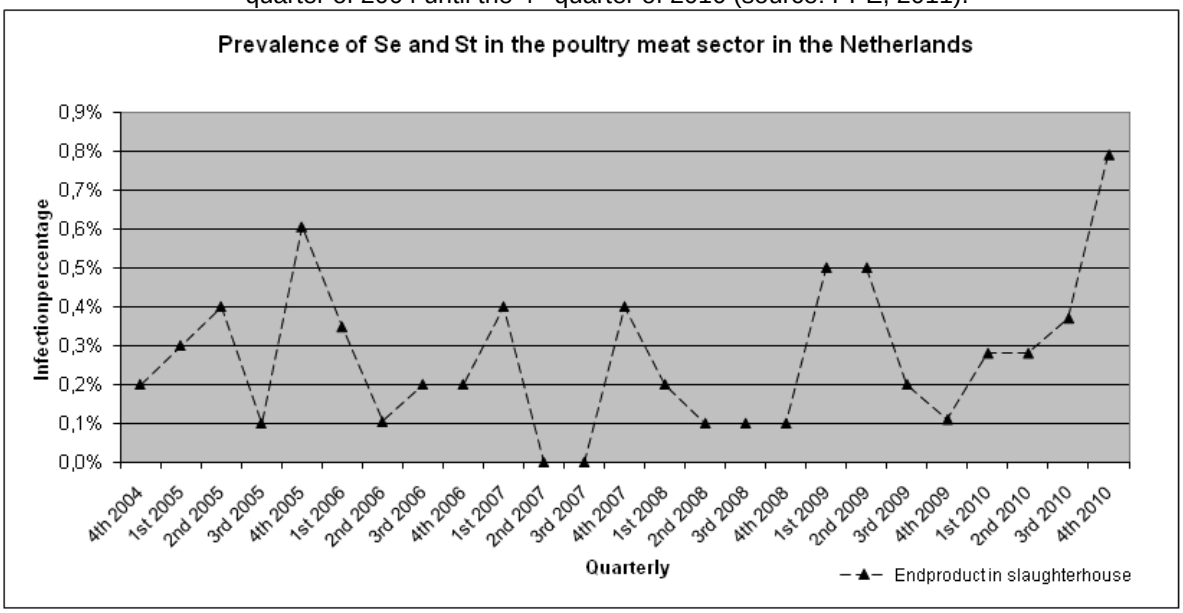

Figure 3: Prevalence of SE and ST in end product sampled in slaughterhouses in the Netherlands from the 4th quarter of 2004 until the 4th quarter of 2010 (source: PPE, 2011)

Figure 2 and 3 cannot be combined in one figure as sampling batches are not comparable. Sampling at the broiler farm is done per poultry house while sampling at the slaughterhouse is done per batch, which can consist of more than one poultry house. Note that in Figure 3 data from flocks from foreign countries that have been slaughtered in the Netherlands is included, as such flocks are also tested for Salmonella at the slaughterhouse.

One of the objectives of the current programme is to monitor the prevalence of all serotypes of Salmonella in all links of the poultry production chain. The following figures and tables show some results of the programme. In Figure 4 and Table 1 the monitoring results for Salmonella spp. throughout the poultry production chain are presented from the 1st quarter of 2000 until the 4th quarter of 2010. Figure 5 shows the different serotypes of Salmonella that have been found in faecal samples taken from the infected flocks in the 4th quarter of 2010. In Table 2 the prevalence of Salmonella spp. in the end products at the slaughterhouse is shown from the 3rd quarter of 2000 until the 4th quarter of 2010. Figure 6 shows the different serotypes of Salmonella that have been found in infected end product samples taken at the slaughterhouse in the 4th quarter of 2010.

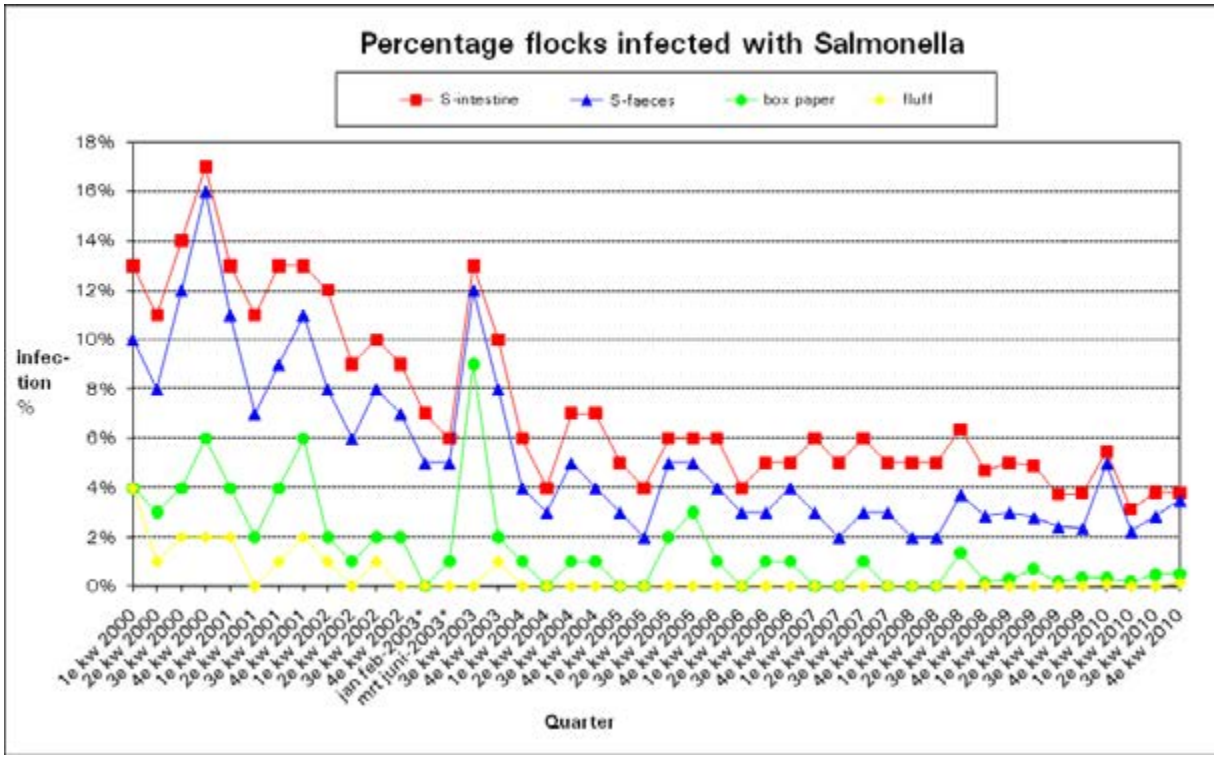

Figure 4: Prevalence of Salmonella spp. in samples taken at different levels in the poultry production chain from the 1st quarter of 2000 until the 4th quarter of 2010. In this figure, fluff represents the percentage of Salmonella positive fluff-samples taken from the hatcheries at the end of the hatching process; box paper is the percentage of Salmonella positive samples taken from the day-old chicken box paper at the broiler farms; S-faeces is the percentage of Salmonella positive faecal samples taken at the broiler farms; and S-intestine is the percentage of Salmonella positive intestine samples taken at the slaughterhouse (Source: PPE, 2011).

Table 1: Prevalence of Salmonella spp. in samples taken at different levels in the poultry production chain from the 1st quarter of 2002 until the 4th quarter of 2010 (source: PPE, 2011). See Figure 4 for explanation of sampling types.

Time Frame	S-intestine	S-faeces	Boxpaper	Fluff

4th quarter 2010	4%	4%	1%	0%
3rd quarter 2010	4%	3%	1%	0%
2nd quarter 2010	3%	2%	0%	0%
1st quarter 2010	6%	5%	0%	0%
4th quarter 2009	4%	2%	0%	0%
3rd quarter 2009	4%	2%	0%	0%
2nd quarter 2009	5%	3%	1%	0%
1st quarter 2009	5%	3%	0%	0%
4th quarter 2008	5%	3%	0%	0%
3rd quarter 2008	6%	4%	1%	0%
2nd quarter 2008	5%	2%	0%	0%
1st quarter 2008	5%	2%	0%	0%
4th quarter 2007	5%	3%	0%	0%
3rd quarter 2007	6%	3%	1%	0%
2nd quarter 2007	5%	2%	0%	0%
1st quarter 2007	6%	3%	0%	0%
4th quarter 2006	5%	4%	1%	0%

(Table 1 continues on next page)

3rd quarter 2006	5%	3%	1%	0%
2nd quarter 2006	4%	3%	0%	0%
1st quarter 2006	6%	4%	1%	0%
4th quarter 2005	6%	5%	3%	0%
3rd quarter 2005	6%	5%	2%	0%
2nd quarter 2005	4%	2%	0%	0%
1st quarter 2005	5%	3%	0%	0%
4th quarter 2004	7%	4%	1%	0%
3rd quarter 2004	7%	5%	1%	0%
2nd quarter 2004	4%	3%	0%	0%
1st quarter 2004	6%	4%	1%	0%
4th quarter 2003	10%	8%	2%	1%
3rd quarter 2003	13%	12%	9%	0%
March till June 2003*	6%	5%	1%	0%
January & February 2003	7%	5%	0%	0%
4th quarter 2002	9%	7%	2%	0%
3rd quarter 2002	10%	8%	2%	1%
2nd quarter 2002	9%	6%	1%	0%
1st quarter 2002	12%	8%	2%	1%

* In this period Avian Influenza problems were overruling the monitoring of Salmonella.

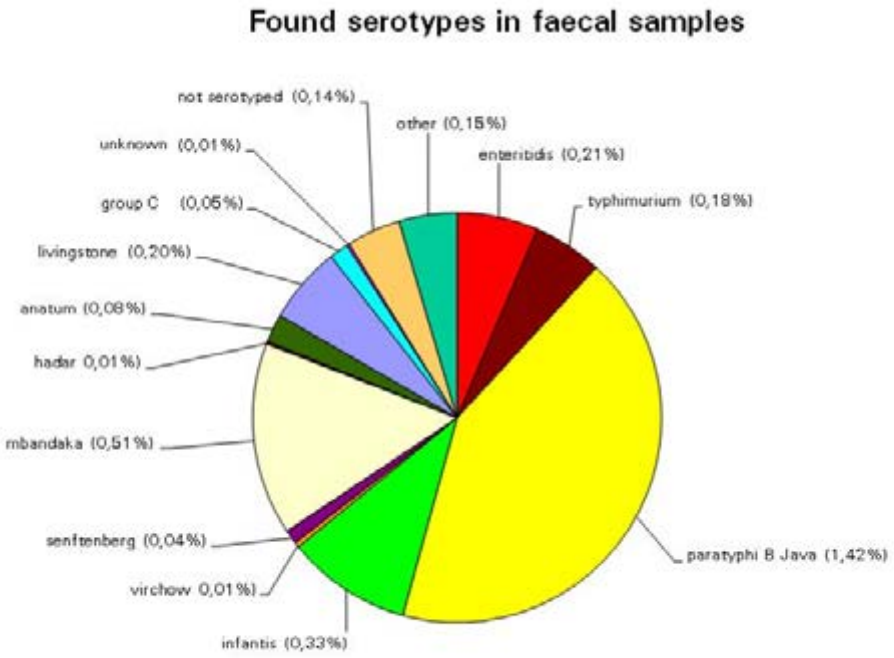

Figure 5: Specification of the different serotypes of Salmonella found in faecal samples taken from the infected flocks in the 4th quarter of 2010 (source: PPE, 2011).

Table 2: Prevalence of Salmonella spp. in samples taken of the end products at slaughterhouses from the 3rd quarter of 2000 until the 4th quarter of 2010 (source: PPE, 2011).

End product	**Salmonella**
4th quarter 2010	5%
3rd quarter 2010	6%
2nd quarter 2010	5%
1st quarter 2010	5%
4th quarter 2009	5%
3rd quarter 2009	6%
2nd quarter 2009	8%
1st quarter 2009	7%
4th quarter 2008	5%
3rd quarter 2008	7%
2nd quarter 2008	6%
1st quarter 2008	6%
4th quarter 2007	8%
3rd quarter 2007	9%
2nd quarter 2007	9%
1st quarter 2007	7%
4th quarter 2006	7%
3rd quarter 2006	7%
2nd quarter 2006	5%
1st quarter 2006	6%

4th quarter 2005	9%
3rd quarter 2005	7%
2nd quarter 2005	5%
1st quarter 2005	7%
4th quarter 2004	7%
3rd quarter 2004	7%
2nd quarter 2004	6%
1st quarter 2004	6%
4th quarter 2003	9%
3rd quarter 2003	15%
March till June 2003*	12%
January & February 2003	9%
4th quarter 2002	9%
3rd quarter 2002	12%
2nd quarter 2002	13%
1st quarter 2002	14%
4th quarter 2001	15%
3rd quarter 2001	17%
2nd quarter 2001	15%
1st quarter 2001	20%
4th quarter 2000	22%
3rd quarter 2000	22%

* In this period Avian Influenza problems were overruling the monitoring of Salmonella.

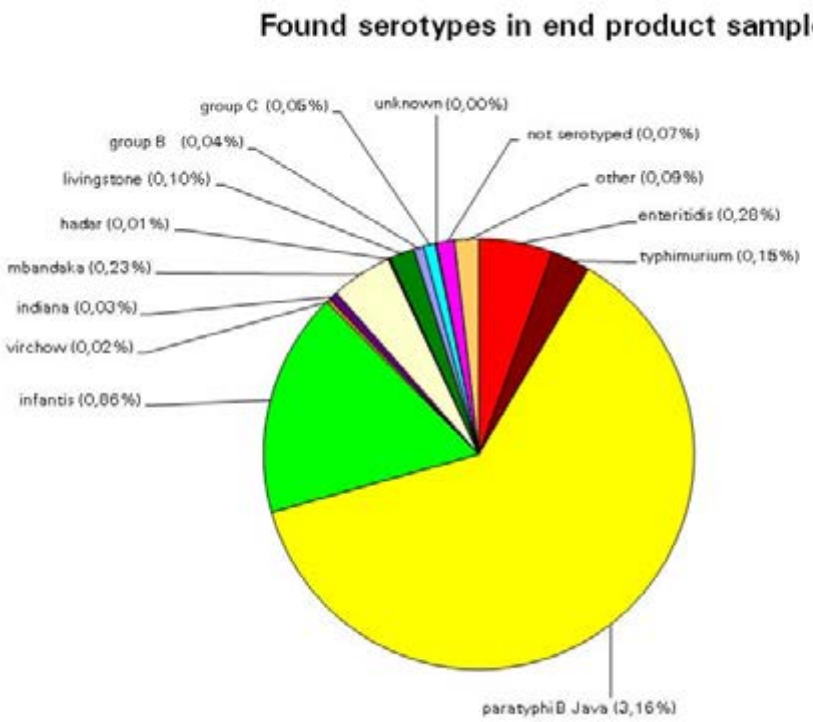

Figure 6: Specification of the different serotypes of Salmonella found in infected end product samples taken at the slaughterhouse in the 4th quarter of 2010 (source: PPE, 2011).

2.2 Egg production

In November 1997 a programme to control the prevalence of Salmonella in laying hens was started; the “Plan of Approach prevention and control of Salmonella in the egg industry 1999”. The objective of this programme was to reduce the SE/ST prevalence in flocks of laying hens to 5 percent or less by November 2000. This programme involved strict hygiene rules and the monitoring of Salmonella infections throughout the egg production chain. However, this objective was not reached, so a new programme was introduced in the beginning of 2001. The aim of this programme, called “Action Plan Salmonella in egg production 2001^{+}”, was to strive for a 0+ percent of contaminated eggs. In this stricter approach the eggs of contaminated flocks of laying hens are delivered to the egg product industry, for a special allowed treatment. The actions involved in both programmes were/are obligatory, pursuant to the legislation of the PPE.

Until January 2008 the incidence of SE/ST infections in Dutch flocks of laying hens was monitored by taking blood samples of at least 0.5 percent of every flock (with a minimum of 24 and a maximum of 60 animals) before removal at the end of the production period. The samples were analyzed by the Animal Health Service and reported to the PPE. Table 3 shows the percentage of SE/ST infected layer hen flocks in the period from November 1997 until December 2007. From the 1st of February 2008 the monitoring has changed to bacteriological analysis of faecal samples taken every 15 weeks in accordance with EU Regulation 1168/2006.

Table 3: SE/ST infections in layers, based on serological results obtained from 1997 until 2007 (source: PPE, 2008).

Year	Number of flocks	SE infected	% SE infected	ST infected	% ST infected
1997*	258	35	13,6	2	0,8
1998	1631	181	11,1	6	0,4
1999	1705	181	10,6	3	0,2
2000	2010	229	11,4	6	0,3
2001	1978	177	8,9	4	0,2
2002	1873	165	8,8	7	0,4
2003	864	59	6,8	3	0,3
2004	1500	101	6,7	3	0,2
2005	1952	64	3,3	3	0,2
2006	1878	85	4,5	6	0,3
2007	1870	109	5,8	0	0

*Start of programme November 1997

Over the period from February 1999 to December 2000 11,4 percent of the examined layer flocks tested SE/ST positive. After the introduction of the stricter programme “Action Plan Salmonella in egg production 2001^{+}” the SE/ST-infection percentage, based on serological results, of layers decreased towards 5.8 % in 2007. This might be in part due to the increased use of vaccines against SE of the layers.

For the Netherlands a SE/ST-infection percentage, based on bacteriological results, of 7.8 % was determined through a European study “Analysis of the baseline study on the prevalence of Salmonella in laying hen flocks of Gallus gallus”.

From 1st February 2008 EG 1168/2006 was implemented in the Action plan Salmonella in egg production 2001^{+} in the Netherlands. Table 4 shows the results of the bacteriological tests in layer flocks in accordance with the EU-regulation 1168/2006 performed from 2008 onwards. They are in accordance with the Community target set for the Netherlands. In 2009 and 2010 the percentage of SE/ST infected layer flocks was even below the end target of the community of 2%.

Table 4: SE/ST infections in layers, based on bacteriological results from 2008 until 2010 (source: PPE, 2011).

Year	Number of flocks	SE infected	% SE infected	ST infected	% ST infected
2008	2346	61	2,60	1	0,04
2009	2240	29	1,29	4	0,18
2010	2426	26	1,07	0	0

3. Description of the submitted programme

3.1 Target Veterinary Control Programme

The target for the reduction of Salmonella Enteritidis (SE) and Salmonella Typhimurium (ST) in broiler flocks of Gallus gallus is a reduction of the maximum percentage of broilers remaining positive to 1 percent or less by 31 December 2012.

3.2 Monitoring of the Veterinary Control Programme

A. Monitoring through the operator

The test frequency is laid down in the directives of the PPE. On day of arrival at least 40 pieces of box paper, per truck, are taken. From 21 days onwards, but within three weeks before slaughter counted from the day of sampling, samples are taken at the holding. This time window for sampling is in accordance with EU regulation 646/2007. The operator managing the broilers is currently responsible for the monitoring, however this responsibility might be assigned to an independent organization in the future as supervision of sampling at the broiler farm is considered as an additional measure in the eradication of Salmonella. During monitoring at least two pair of boot / sock swabs are taken per poultry house. It is ensured that all sections in a poultry house are represented in the sampling in a proportionate way and each pair of boot / sock swabs should cover about 50% of the area of the house.

Before putting on the boot / sock swabs, their surface is moistened with maximum recovery diluents (MRD: 0,8% sodium chloride, 0,1% peptone in sterile deionised water), sterile water or any other diluent approved by the national reference laboratory. The use of farm water containing antimicrobials or additional disinfectants is prohibited. On completion of sampling the boot / sock swabs are carefully removed so as not to dislodge adherent material. Boot swabs may be inverted to retain material. The overshoes are transported in a bottle or plastic bag with a label. For free range flocks of broilers samples need only be collected in the area inside the house.

Samples will be send by (express) mail or courier to the acknowledged laboratory, within 25 hours after collection. At the laboratory samples will be kept refrigerated until examination, which is carried out within 48 hours following receipt. Samples are analyzed according to the MSRV-branch method, which is in accordance with point 3.4 of the Annex of 646/2007 and is based on the latest version of Annex D, ISO 6579(2002). Each Salmonella positive sample has to be serotyped.

However, by way of derogation from point monitoring through the operator the competent authority can 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 as above 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 SE or ST were negative.

When testing results of boot / sock swabs taken at the poultry house disagree with faecal samples from the small intestine taken at the slaughterhouse (of the same flock) in two subsequent rounds, the competent authority can decide that the operator of the broiler farm is obliged to perform boot / sock swabs under supervision of the control organization for at least three rounds. This measure is implemented to ensure high quality samples are taken at the poultry house, thus increasing the reliability of this test.

B. Official sampling

Official sampling is performed by GD, once a year at 10% of the broiler farms. This official sampling will be risk based, but the decision of which specific risk factor demands extra attention will be made in line with the situation at hand. The aim of official sampling is to provide additional control of the monitoring results at the broiler farm.
When the selected risk group does not reach 10% of the total number of broilers farms in the Netherlands a random selection will take place to supplement the group until 10%. Official sampling replaces monitoring by the operator.

C. Future additional measures for sampling at flock level

Currently PPE is developing a different manner of sampling at flock level by the operator of the broiler farm. One aspect of this is that performance of sampling at the broiler farm is done by an independent organisation instead of the operator. This independent organisation will also take care that the samples arrive timely and in good condition at the laboratory. Furthermore the sampling protocol is being adjusted to further improve the quality of the samples. These adjustments are expected to improve monitoring of Salmonella and to assist in eradicating SE and ST in the Netherlands. The additional measures for sampling at flock level at the broiler farm are expected to be implemented in 2012.

3.3 Measures to be taken in case of Salmonella positive findings at the poultry house

Measures to be taken in case of Salmonella positive findings in broilers are:

a) swab check executed by a by the PPE acknowledged company in the poultry house after cleaning and disinfection
b) in case of a positive swab result the poultry house has to be cleaned and disinfected by a professional company after the next round
c) tracing survey under supervision of a veterinarian
d) in case of a Salmonella Java infection the farmer has to take some additional measures compared with an infection of another serotype, especially when there have been two or three Salmonella Java infections in a row. These extra measures are cleaning of the feeding system, keeping the poultry house empty for at least 10 days for thorough cleaning and disinfection, and additional sampling to monitor Salmonella

The PPE is designing additional measures to eradicate SE/ST infections. These additional measures will largely resemble the measures in place for Salmonella Java infections, and are expected to be implemented in 2012.

3.4 Monitoring in slaughterhouse

When broilers enter the slaughterhouse they are again monitored for Salmonella. From each flock 30 faecal samples of the small intestine are taken. Before the carcass leaves the slaughterhouse samples from each batch are taken from the skin (25 grams). At the cutting plant each day a sample is taken from filet, drumstick or wing, which is analysed at Salmonella as well. Each positive sample has to be serotyped.

3.5 Measures to be taken in case of Salmonella positive findings at the slaughterhouse

When a flock of Salmonella positive broilers arrives at the slaughterhouse, they have to be slaughtered logistically, i.e. slaughtered at the end of the day. This prevents Salmonella cross contamination between flocks in the slaughterhouse. When more than 10 percent of the sample batches, based on skin samples, is found to be positive for Salmonella over a period of three months, the slaughterhouse has to compose and execute an improvement plan.

3.6 Other bio-security regulations

Besides Salmonella monitoring and measures in case of a positive sample other bio-security regulations are part of the “Action Plan Salmonella and Campylobacter in the Poultry meat sector 2000^{+}”.

These measures are:

1. Hygiene management at farms:
    a. No pets, stock of (other) poultry is allowed in the broiler house;
    b. If pets, stock or (other) poultry is present on the location of the broiler farm special hygiene measures are required (like separate care);
    c. No wild birds can enter the broiler house;
    d. Visitors are only allowed to enter the broiler house when this is necessary and under strict hygiene measures (including special clothing);
    e. Every farm has a rodent control program or charters an acknowledged rodent control company (at least every 2 months);
    f. Once a year bacteriological research and in case of a natural source of water also chemical research is conducted of drinking water for poultry;
    g. Every farm has a clear boundary and it is visible for visitors where they must announce themselves. The broiler houses are locked.
    h. The broiler house, the broiler farm and its close environment is clean;
    i. Before entering the broiler house there is a hygiene barrier with clothing and shoes;
    j. The drive- and walking routes to the farm are paved and cleanable;
    k. The silo is placed on a paved underground, is easy to clean and refillable from outside the turkey house. When there are more silo’s, every silo has a unique number;
    l. Feed and litter is stored in such a way that it stays clean, dry and mold free;
    m. Every broiler house has a hand-washing facility.
2. Cleaning and disinfection;
    a. After removing the broilers the litter is removed and the broiler house is cleaned and disinfected;
    b. Once a year a hygiene check in the cleaned and disinfected empty broiler house is done by a by PPE acknowledged company.

Besides those measures we have a specific Salmonella Java control programme as described previously.

4. Measures of the submitted programme

4.1 Summary of measures under the programme

Duration of the programme:
The program runs since 1997 and has been slightly adjusted in 2009 in accordance with EU regulation 646/2007.The programme is ongoing, at least up to 31 December 2012.

First year:

- Control:
  - Testing
- Monitoring or surveillance
- Other measures:
  - Rodent control programme
  - Hygiene check
  - Bacteriological research of water
  - Hygiene measures
  - Salmonella Java control programme

Last year:

- Control:
  - Testing
- Monitoring or surveillance
- Other measures:
  - Rodent control programme
  - Hygiene check
  - Bacteriological research of water
  - Hygiene measures
  - Salmonella Java control programme

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

In the Netherlands the Product Board for Poultry and Eggs is responsible for the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation is the central authority and supervises this implementation. In Figure 7, all organizations involved are displayed with their mutual connections and their relation to the programme.

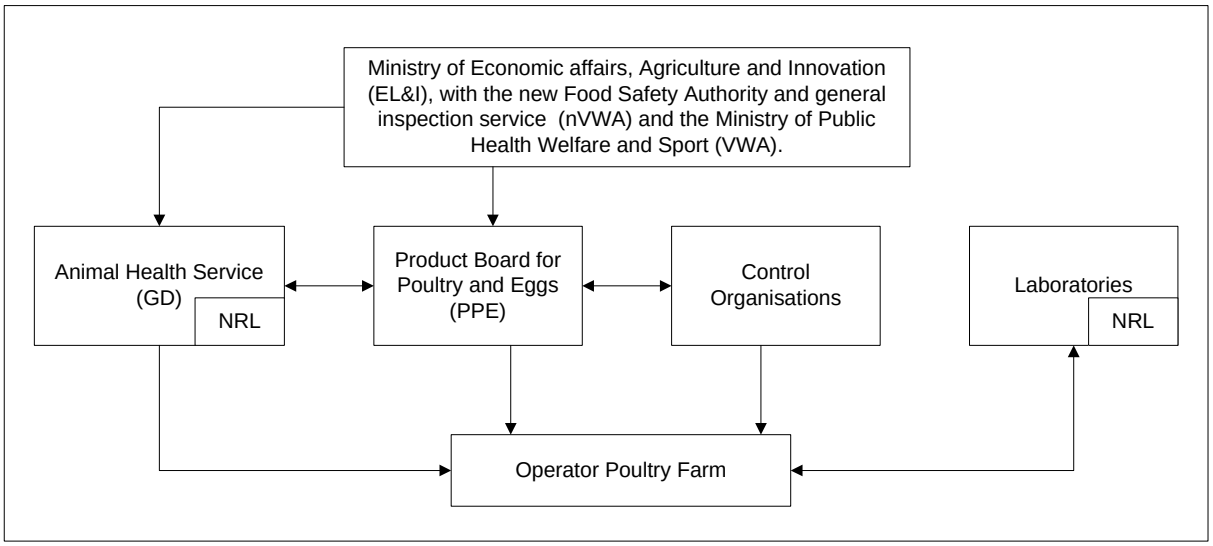

Figure 7: Organizational scheme of the organizations involved in the veterinary control programme for Salmonella in poultry

1. PPE
The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en

monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)
Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA
The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations
The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories
In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the Salmonella status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of Salmonella). All of the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute of Public Health and Environment)
The RIVM is the Dutch national reference laboratory for Salmonella. The RIVM is part of the Ministry of VWS, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

7. Structure of the Production of Feed
Regulations for the production of feed are laid down in the “Kaderwet Diervoeders” by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the “Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005” and the “Besluit PDV Salmonella in de diervoedersector 2005”. For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

Furthermore a quality assurance programme for feed exists in addition to these regulations. This programme is the Good Manufacturing / Managing Practice (GMP) system. When combined with the HACCP principles this quality assurance programme is called GMP+. Almost all feed producers for the poultry chain are GMP+ certified. All IKB certified poultry farmers, i.e. farmers that participate in the voluntary Dutch Integral Chain Control programme, are obligated to use

GMP+ certified feed. The GMP+ standards include control measures for base materials, rules for additives, sampling schemes for zoonoses, hygiene and process criteria and compulsory regularly controls by an independent control organization.

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

Geographical limitations: The Netherlands.

4.4 Measures implemented under the programme

4.4.1 Measures and terms of legislation as regards the registration of the holding
All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation 'Verordening productie van en handel in broedeieren en levend pluimvee (PPE)". All the information is stored in a central database called the "Koppel Informatiesysteem Pluimvee (KIP-system)". This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

When broilers are dispatched a so called Voedsel Keten Informatie (VKI) formulier (Food Chain Form) accompanies the transport. On this form details about the farm, vet, slaughterhouse and flocks is registered. Also details about food, health (e.g. prescribed medicine) are given. The VKI form is in accordance with regulation EG 2074/2005.

4.4.2 Measures and terms of legislation as regards the identification of animals
Not applicable for poultry

4.4.3 Measures and applicable legislation as regards the notification of the disease
The farmer has to notify the slaughterhouse about the result of faecal sampling at least 24 hours prior to slaughter. In case of a Salmonella positive finding the slaughterhouse has to slaughter the flock at the end of the day (logistic slaughtering). Also every slaughterhouse has to sent an overview of results of Salmonella sampling (positive and negative) at the slaughterhouse, the broiler flock and the hatchery to PPE each month. This is laid down in directives of PPE.

4.4.4 Measures and terms of legislation as regards the measures in case of a positive result
The measures that have to be taken in case of a positive result are laid down in directives of the PPE. The Ministry of Economic Affairs, Agriculture and Innovation and Ministry of Public Health, Welfare and Sport have to approve these directives. All measures are stated in Chapter 3. In the frame of the Salmonella control programme in broilers the provisions of paragraphs 1, 2 and 4 of the Annex of Commission Regulation (EC) No 646/2007 are implemented.

4.4.5 Measures and terms of legislation as regards the different qualifications of animals and herds
Not applicable for poultry.

4.4.6 Control procedures and in particular rules on the movement of animals liable to be affected or contaminated by Salmonella and the regular inspection of the holdings of areas concerned

When birds from infected flocks are slaughtered or destroyed, steps are taken to reduce the risk of spreading zoonoses as far as possible. Slaughtering will be carried out in accordance with Community legislation on food hygiene. When the poultry meat is not destined for human consumption, the products must be used or disposed of in accordance with Regulation (EC) No 1774/2002.

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

The test that is preferred to be used for Salmonella analysis within the Action Plan is the PVE branch method for Salmonella analysis. This method includes the use of Modified Semi solid Rapport Vassiliadis agar (MSRV) as a selective enrichment medium. The semi solid medium should be incubated at 41.5 °C +/- 1 °C for 48 h. Alternative methods for detection are permitted (for example Salmonella analysis by PCR), if the methods are approved by the CRL. In case of a positive finding, serotyping is performed according to the Kaufmann-White scheme.

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 normal methods for culture collection, which must ensure integrity of the strains for minimum of two years.

Antimicrobials

The use of antimicrobials is prohibited except for circumstances laid down in 1177/2006/EC, Article 2.

Salmonella Vaccines

Vaccination against salmonella is not used in broilers in the Netherlands.

Financial contribution

The financial contribution for the farmer and the measures to be taken to receive the contribution will be specified in legislation of the PPE “Verordening Subsidieverlening terugdringing Salmonella in de pluimveesector”. At the moment there are no possibilities in this legislation for financial contribution for broiler flocks. For 2012 PPE requests to receive financial assistance from the EU to compensate farmers for the depreciation of SE/ST infected poultry meat, as described in the current programme.

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

In 2011 there is no financial assistance for broiler flocks. For 2012 financial assistance from the EU is requested for compensation of the depreciation of meat derived from SE/ST infected broiler flocks. From 1st December 2011 new EU regulations prescribe that this meat cannot be marketed as fresh poultry meat, but must receive heat treatment. This leads to a decrease in value of the meat. Compensation for the loss of value is already possible in the cases of breeding or laying flocks to be culled and hatching and table eggs to be destroyed due to a Salmonella infection (e.g. Commission Decision No 2010/712). In our opinion financial assistance to compensate the loss of value due to compulsory heat treatment of meat of broiler flocks infected with SE/ST is completely in line with the above mentioned assistance for breeding and laying flocks. The value and level of compensation required for the poultry meat will be defined on a central level by the Dutch government institute for agricultural economics (LEI). PPE will implement additional legislation to guarantee the strict separation, slaughtering and processing of poultry flocks infected with SE/ST.

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

Besides the control programme for Salmonella, each flock will be checked once by a veterinarian, in accordance to the GVP-code (Good Veterinarian Practice). This is a Dutch quality code for veterinarians and ensures that the veterinarian has knowledge of poultry (including turkeys).

Each poultry farmer has to comply with the following bio-security measures, laid down in the directive “Verordening Hygiënevoorschriften Pluimveehouderij (PPE) 2007”. All farmers are inspected once a year for compliance with these regulations.

1. Hygiene management at farms:

    a. No pets, stock or (other) poultry are allowed in the poultry house
    b. If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measures are required (like separate care)
    c. No wild birds can enter the poultry house
    d. Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measures (including special clothing)
    e. Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    f. Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    g. Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    h. The poultry house, the poultry farm and its close environment are clean
    i. Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes
    j. The drive- and walking routes to the farm are paved and cleanable
    k. The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo’s, every silo has a unique number
    l. Feed and litter is stored in such a way that it stays clean, dry and mould free
    m. Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

For broiler farms and slaughterhouses some additional measures are in place:

3. In case of a Salmonella Java infection the farmer has to take some additional measures compared with an infection of another serotype, especially when there have been two or three Salmonella Java infections in a row. These extra measures are cleaning of the feeding system, keeping the poultry house empty for at least 10 days for thorough cleaning and disinfection, and additional sampling to monitor Salmonella.

4. Slaughterhouses take special measures to clean and inspect trucks and containers used to transport broilers from farm to slaughterhouse

Every holding is obligated to inform the slaughterhouse where the broilers are transferred, about the Salmonella status of the flock. This is laid down in the directive “Verordening Hygiënevoorschriften Pluimveehouderij (PPE)”.

In accordance with EU Regulations 852/2004 and 853/2004 Guides for Good Practices are being developed for the poultry sector. In these guides HACCP principles and traceability measures are implemented. The guides for poultry farms are based on the quality system IKB. This quality assurance system for the whole poultry chain is developed in the Netherlands by the PPE. More than 80 % of the poultry farms are currently certified for IKB. IKB standards include hygiene

management at farms, measures to prevent incoming infections and the hygienic transportation of animals.

5. General description of the costs and benefits

5.1. Human Salmonellosis

The incidence of human Salmonellosis from 1984 until 2010 in the Netherlands is outlined in Figure 8.

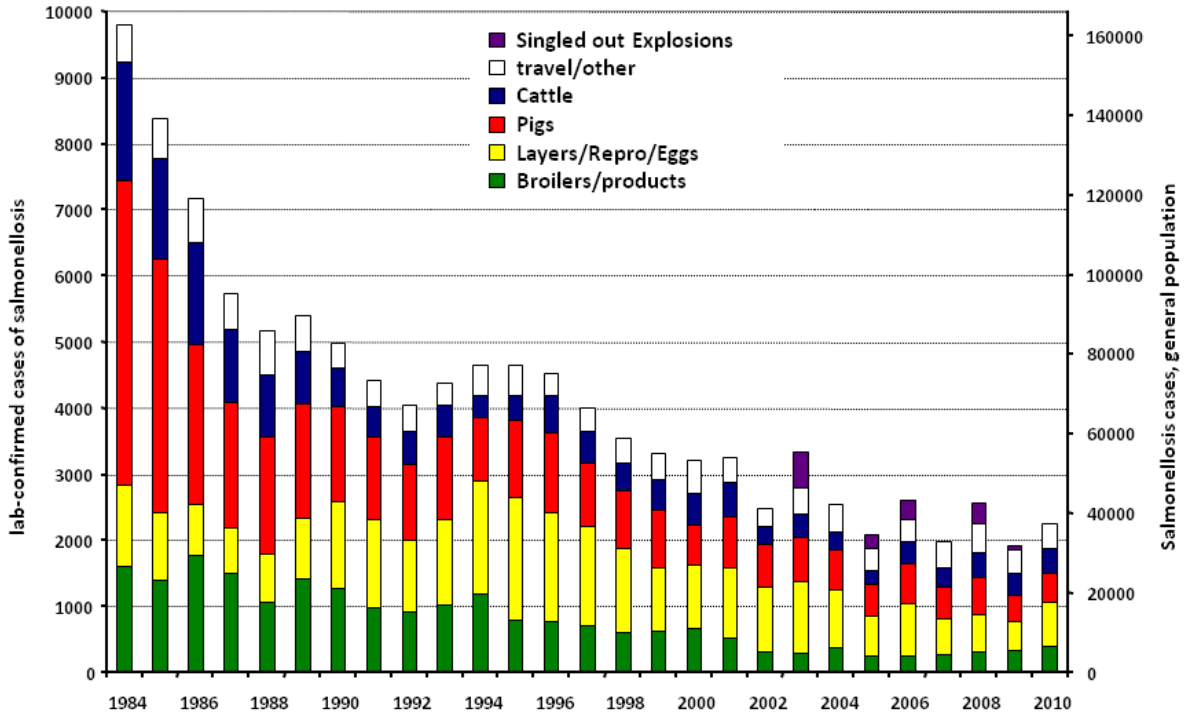

Figure 8: Occurrence of human cases of Salmonellosis in the Netherlands, with Salmonellosis caused by eggs depicted in yellow and Salmonellosis caused by poultry meat in green (source: PPE, 2011).

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

6.1 Evolution of the disease

6.1.2. Data on evolution of zoonotic salmonellosis

Year: 2006 **Situation on date:** December 2006
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	broilers	6486	335,6 million	6486	335,6 million	6486	24	18	884	0	0	0	0	N/A	N/A	N/A	N/A
Total		6486	335,6 million	6486	335,6 million	6486	24	18	884	0	0	0	0	N/A	N/A	N/A	N/A

Year: 2007 **Situation on date:** December 2007
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Broilers	6705	350,6 million	6705	350,6 million	6705	5	21	817	0	0	0	0	N/A	N/A	N/A	N/A
Total		6705	350,6 million	6705	350,6 million	6705	5	21	817	0	0	0	0	N/A	N/A	N/A	N/A

Year: 2008 **Situation on date:** December 2008
Animal species: poultry **Disease/infection[a]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[b]	Total number of flocks[c]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[d]	Number of positive 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Broilers	6530	356,7 million	6530	356,7 million	6530	1	6	821	0	0	0	0	N/A	N/A	N/A	N/A
Total		6530	356,7 million	6530	356,7 million	6530	1	6	821	0	0	0	0	N/A	N/A	N/A	N/A

Year: 2009 **Situation on date:** December 2009
Animal species: poultry **Disease/infection[a]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[b]	Total number of flocks[c]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[d]	Number of positive 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Broilers	7535	370,6 million	7535	370,6 million	7535	21	38	699	0	0	0	0	N/A	N/A	N/A	N/A
Total		7535	370,6 million	7535	370,6 million	7535	21	38	699	0	0	0	0	N/A	N/A	N/A	N/A

Year: 2010[f] **Situation on date:** December 2010
Animal species: poultry **Disease/infection[a]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[b]	Total number of flocks[c]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[d]	Number of positive 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Broilers	18036	358,8 million	18036	358,8 million	18036	34	23	500	0	0	0	0	N/A	N/A	N/A	N/A
Total		18036	358,8 million	18036	358,8 million	18036	34	23	500	0	0	0	0	N/A	N/A	N/A	N/A

(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.
(f) From 2010 onwards a flock is defined as a “slaughter flock”, i.e. all animals from the same house that are slaughtered at the same date in the same slaughterhouse.

6.2 Stratified data on surveillance and laboratory tests

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

Year: 2007 **Animal species[a]:** poultry **Category[b]:** broilers

Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	6705	843	N/A	N/A
Total	N/A	N/A	6705	843	N/A	N/A

Year: 2008 **Animal species [a]:** poultry **Category[b]:** broilers

Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	6530	828	N/A	N/A
Total	N/A	N/A	6530	828	N/A	N/A

Year: 2009 **Animal species [a]:** poultry **Category[b]:** broilers

Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	7535	758	N/A	N/A
Total	N/A	N/A	7535	758	N/A	N/A

Year: 2010 **Animal species [a]:** poultry **Category[b]:** broilers

Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	10000	558	N/A	N/A
Total	N/A	N/A	10000	558	N/A	N/A

(a) Animal species if necessary.
(b) Category/further specifications such as breeders, laying hens, broilers, breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc, when appropriate.
(c) Region as defined in the approved control and eradication programme of the Member State.
(d) Number of samples tested.
(e) Number of positive samples.

6.3 Data on infection

Year: 2006 **Animal species[a]:** poultry (broilers)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	926 (all serotypes)	NA
Total	926 (all serotypes)	NA

Year: 2007 **Animal species[a]:** poultry (broilers)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	843 (all serotypes)	NA
Total	843 (all serotypes)	NA

Year: 2008 **Animal species[a]:** poultry (broilers)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	828 (all serotypes)	NA
Total	828 (all serotypes)	NA

Year: 2009 **Animal species[a]:** poultry (broilers)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	758 (all serotypes)	NA
Total	758 (all serotypes)	NA

Year: 2010 **Animal species[a]:** poultry (broilers)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	558 (all serotypes)	NA
Total	558 (all serotypes)	NA

(a) Animal species if necessary.
(b) Region as defined in the control and eradication programme of the Member State.
(c) Herds or flocks or holdings as appropriate. From 2010 onwards a flock or herd is defined as a “slaughter flock”, i.e. all animals from the same pen that are slaughtered at the same date in the same slaughterhouse.

NA: data not available

6.4 Date on vaccination programmes

Not applicable. There is no vaccination programme for broilers in the Netherlands.

7. Targets

7.1 Targets related to testing

7.1.1. Targets on diagnostic tests

Year: 2012 **Animal species:** [a] poultry (broilers)

Region[b]	Type of the test[c]	Target population [d]	Type of sample[e]	Objective [f]	Number of planned tests
Netherlands	MSRV	Broilers	faeces	monitoring	10000
Total					10000

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

7.1.2 Targets on testing of flocks

Year: 2012 **Situation on date:** December 2010
Animal species: poultry **infection[a]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[b]	Total number of flocks[c]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Expected number of flocks to be checked[d]	Number of flocks[e] expected to be positive [a]			Number of flocks expected to be depopulated[a]		Total number of animals expected to be slaughtered or destroyed [a]		Expected quantity of eggs to be destroyed (number or kg) [a]		Expected quantity of eggs channelled to egg products (number or kg) [a]	
							(a1)	(a2)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Broilers	18036	358,8 million	18036	358,8 million	18036	34	23	500	57	0	1,4 million	0	N/A	N/A	N/A	N/A
Total		18036	358,8 million	18036	358,8 million	18036	34	23	500	57	0	1,4 million	0	N/A	N/A	N/A	N/A

(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.

7.2 Targets on vaccination

Not applicable. There is no vaccination programme for broilers in the Netherlands.

8. Detailed analyses of the cost of the programme for 2012

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested (yes/no)
1. Testing					
1.1. Cost of the analysis	Test: Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling	1803	18,39	33.157	No
	Test: Number of serotyping of relevant isolates tests planned to be carried out	54	33,80	1.825	No
1.2. Cost of sampling		1803	104	187.512	No
1.3. Other costs		NA	NA	NA	No
2. Vaccination or treatment of animal products		NA	NA	NA	No
2.1. Purchase of vaccine/treatment of animal products		NA	NA	NA	No
	Number of purchase of vaccine doses planned if a vaccination policy is part of the programme as set out explicitly under point 4 of Annex II	NA	NA	NA	No
2.2. Distribution costs		NA	NA	NA	No
2.3. Administering costs		NA	NA	NA	No
2.4. Control costs		NA	NA	NA	No
3. Slaughter and destruction					
3.1. Compensation of animals		NA	NA	NA	No
3.2. Transport costs		NA	NA	NA	No
3.3. Destruction costs		NA	NA	NA	No
3.4. Loss in case of slaughtering		NA	NA	NA	No

3.5 Costs from treatment of animal products (milk, eggs, hatching eggs, etc)	Depreciation of poultry meat from infected flocks (due to heat treatment).	1.400.000	0,60	840.000	Yes
4. Cleaning and disinfection	Cleaning and disinfection of houses with infected flocks	120.000.000	0,033	3.960.000	No
5. Salaries (staff contracted for the programme only)		NA	NA	NA	No
6. Consumables and specific equipment		NA	NA	NA	No
7. Other costs					
7.1 Biosecurity	Rodent control	570	500	228.000	No
	Hygienecheck	570	115	65.550	No
	Water analysis	570	40	22.800	No
	Cleaning and disinfection of poultry house	358.800.000	0,033	11.840.400	No
	Salmonella test after cleaning and desinfection	270	18,39	4965	No
TOTAL					

TOTAL COSTS REQUESTED FOR COMMUNITY FUNDING IN 2012 FOR BROILER FLOCKS

	Total costs	**Request community funding (= 50%)**
Costs from treatment of animal products (3.5)	€ 840.000	€ 420.000

The Netherlands confirm that all measures mentioned in Table 8 for which we ask for co-financing are fundable according to current national rules.

Annex to the Veterinary Control Programme for Salmonella in Broilers presented for 2012 by the Netherlands

The control programme complies with the specific requirements laid down in Part E of Annex II to regulation (EC) No 2160/2003.
Measures are carried out in accordance with Commission Regulation (EC) No 646/2007 implementing legislation of Regulation (EC) No 2160/2003 in broilers including requirements of testing (details on types of samples, sampling frequency, preparation of samples, laboratory, methods of analysis, reporting of results etc.).

PROPOSED
VETERINARY CONTROL PROGRAMME
FOR
SALMONELLA IN LAYING HEN FLOCKS
PRESENTED FOR 2012*
BY
THE NETHERLANDS

*In accordance with Regulation 2160/2003 and 1168/2006

INDEX

PART A

A.a: Aim of the programme

The aim of the programme is to monitor and reduce the prevalence of Salmonella Enteritidis and Salmonella Typhimurium in laying hen flocks of Gallus gallus. The target is to reduce the percentage of adult laying hen flocks infected with Salmonella Enteritidis and Salmonella Typhimurium to 2% or less.

A.b: Animal population and phases of production which sampling covers

Laying flocks of Gallus gallus

- Rearing flocks (day-old chicks and pullets two weeks before moving to laying phase or unit);
- Laying flocks (every 15 weeks during the laying phase)

A.c: Evidence that programme complies requirements laid down in Part D of Annex II regulation (EC) No 2160 / 2003

Eggs originating from a Salmonella Enteritidis or Salmonella Typhimurium suspected or infected flock or from flocks with an unknown health status must be adequately marked. They must be destroyed or destined for the egg processing industry. They can only be used for human consumption if treated in a manner that guarantees the elimination of all salmonella serotypes with public health significance, in accordance with Community legislation (EU Regulation 1237/2007).

- Suspicion= positive result after first test
- Infection= positive result after verification test

A.d.1: General

A.d.1.1: Short summary referring to the occurrence of Salmonellosis

Regulation (EC) 2006/1186/EC was implemented on 1st February 2008. The results with regard to the occurrence of Salmonella Enteritidis (SE) and Salmonella Typhimurium (ST) were:

- 2008: 61 SE/ST infected flocks out of 2346 (2,64%)
- 2009: 33 SE/ST infected flocks out of 2240 (1,47%)
- 2010: 26 SE/ST infected flocks out of 2426 (1,07%)

A.d.1.2: Structure and organization of the relevant competent authorities

In the Netherlands the Product Board for Livestock, Meat and Eggs executes the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation (EL&I) is coordinating this implementation. In Figure 1, all organizations involved are displayed with their mutual connections and their relation to the programme.

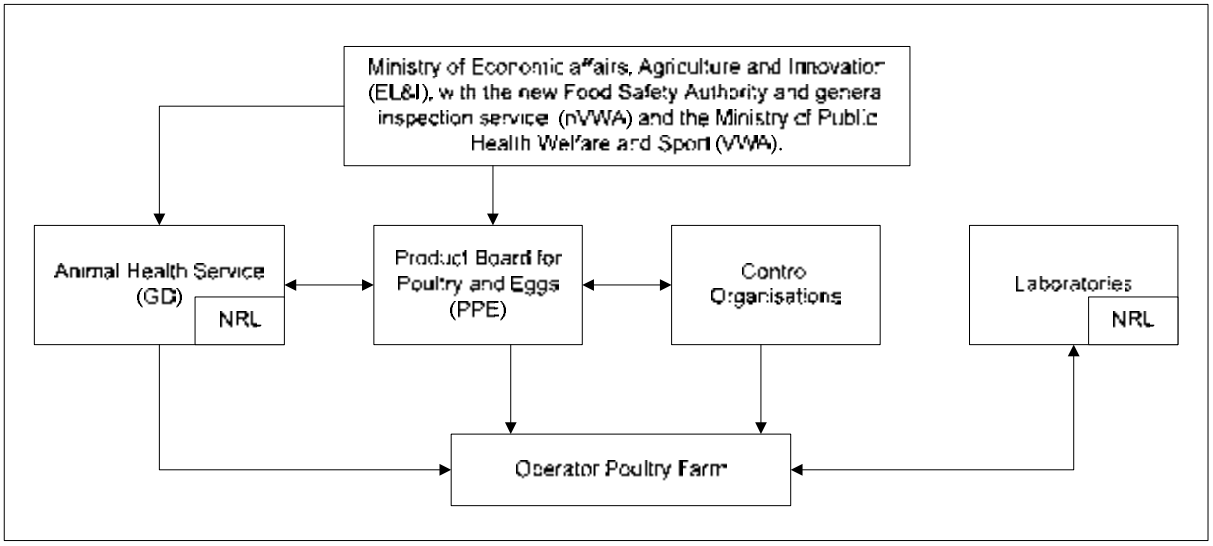

Figure 1: Organizational scheme of the organizations involved in the veterinary control programme for Salmonella in poultry.

1. PPE

The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)

Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA

The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations

The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories

In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the *Salmonella* status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of *Salmonella*). All of the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke

dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute for Public Health and the Environment)
The RIVM is the Dutch national reference laboratory for *Salmonella*. The RIVM falls under the Ministry of VWA, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

A.d.1.3: Approved laboratories

Approved laboratories:
1. ALcontrol Food & Water
2. AS Bioconsult
3. Bacteriologisch Adviesbureau
4. Bilacon GmbH
5. C.C.L. – Nutricontrol
6. Demetris DierGezondheid BV
7. DGZ Vlaanderen – locatie Torhout
8. GD
9. Heijs Groep Pluimveeverwerkende Industrie (Lab Heijs/ de Vries)
10. K.B.B.L. Wijhe
11. Lavetan NV
12. Lebensmittel- und veterinärlabor GmbH
13. Lohmann Tierzucht
14. Masterlab BV
15. Plukon Poultry BV
16. ROBA Laboratorium
17. RIVM
18. SGS Laboratory Services
19. Silliker Netherlands BV
20. Storteboom Fresh BV Laboratorium
21. Tierärtzliche Gemeinschaftspraxis WEK
22. Veterinair Centrum Someren

A.d.1.4: Methods used in examination

All the tests used in analysing samples concerning the Actions plans are validated against ISO 6579 (Annex D). Tests are only applicable after approval of the ‘Stuurgroep Laboratoria’, a committee with experts on the field of *Salmonella* analysis (e.g. the NRL, the accreditation council and the GD). In case of a Salmonella positive sample, serotyping is performed according to the White-Kaufmann-Le Minor scheme.

A.d.1.5: Official controls at feed and flock level

Every year an official sampling is being done at the holdings, which shall replace on that occasion the corresponding sampling at the initiative of the operator. Official sampling is being done:
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 SE or ST 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 SE or ST are detected in one laying flock on the holding;
e) In cases where the competent authority considers it appropriate.
f) When a positive sample is found, a verification test will take place at the holding.

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 sock shall be taken.

In the case of sampling referred to in point b, c or d mentioned above, the competent authority shall satisfy itself by conducting 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 SE and ST is not detected, but antimicrobials or bacterial growth inhibitory effect is, it shall be accounted for as an infected laying flock.

A.d.1.6: Measures taken by the competent authorities

Eggs originating from a SE/ST suspected or infected flock or from flocks with an unknown health status must be adequately marked. They must be destroyed or destined for the egg processing industry. They can only be used for human consumption if treated in a manner that guarantees the elimination of all salmonella serotypes with public health significance, in accordance with Community legislation (EU Regulation 1237/2007).
Preventive measures
In the Netherlands a large number of the parent flocks (egg production sector and broiler production sector) are vaccinated against Salmonella. Grandparent flocks are not vaccinated.

In the egg production sector Salmonella vaccines are used for parent flocks and layer flocks. An estimated 100% of the parent flocks and 95% of the layer flocks are vaccinated.

A.d.1.7: National legislation relevant to the implementation of the programme

The implementation of the programme is laid down in the PPE Directive ‘Verordening Hygiënevoorschriften Pluimveehouderij (PPE) 2007’.

A.d.1.8: Financial assistance provided to food and feed business

There is financial assistance for the purchase of vaccine doses and for compensation of culled laying hen flocks. This assistance is in accordance with the relevant EU legislation (e.g. Decision (EC) No 470/2009). This financial assistance and the contribution from the Community is approved every year by the Commission when approving the programmes of the member states. The value and compensation of the birds culled is defined on a central level by the Dutch government institute for agricultural economics (LEI). This information is publicly available

A.d.2: Food and feed businesses covered by the programme

A.d.2.1: Structure of the production of eggs

1. Rearing grant parent stock: 12 flocks in 2010
2. Grant parent stock: 46 flocks in 2010

3. Rearing parent stock: 65 flocks in 2010
4. Parent stock: 71 flocks in 2010
5. Rearing layers: 1220 flocks in 2010
6. Layers: 2426 flocks in 2010

A.d.2.2: Structure of the production of feed

Regulations for the production of feed are laid down in the “Kaderwet Diervoeders” by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the “Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005” and the “Besluit PDV Salmonella in de diervoedersector 2005”. For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

Furthermore a quality assurance programme for feed exists in addition to these regulations. This programme is the Good Manufacturing / Managing Practice (GMP) system. When combined with the HACCP principles this quality assurance programme is called GMP+. Almost all feed producers for the poultry chain are GMP+ certified. All IKB certified poultry farmers, i.e. farmers that participate in the voluntary Dutch Integral Chain Control programme, are obligated to use GMP+ certified feed. The GMP+ standards include control measures for base materials, rules for additives, sampling schemes for zoonoses, hygiene and process criteria and compulsory regularly controls by an independent control organization.

A.d.2.3: Relevant guidelines

Relevant guidelines for hygiene management at farms include measures to prevent introduction of pathogens by external sources such as other animals, feed, drinking water, people working at farms and during transport of animals to and from farms.

1. Hygiene management at farms:
    a) No pets, stock or (other) poultry are allowed in the poultry house
    b) If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measures are required (like separate care)
    c) No wild birds can enter the poultry house
    d) Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measures (including special clothing)
    e) Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    f) Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    g) Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    h) The poultry house, the poultry farm and its close environment are clean
    i) Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes
    j) The drive- and walking routes to the farm are paved and cleanable
    k) The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo’s, every silo has a unique number
    l) Feed and litter is stored in such a way that it stays clean, dry and mould free
    m) Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a) After removing the birds the litter is removed and the poultry house is cleaned and disinfected

b) Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

A.d.2.4: Routine veterinary supervision of farms

Every farm is inspected at least once a year by a qualified veterinarian on behalf of the competent authority to enforce national legislation (i.e. legislation based on EU Directive 90/593/EC). This visit is not considered as official sampling in the frame of the Salmonella control programme and official sampling is therefore executed in addition to the routine veterinary inspection.

A.d.2.5: Registration of farms

All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation ‘Verordening productie van en handel in broedeieren en levend pluimvee (PPE)”. All the information is stored in a central database called the “Koppel Informatiesysteem Pluimvee (KIP-system)”. This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

A.d.2.6: Record-keeping at farms

- Farm of origin of the animals
- Number of animals
- Date of birth
- Deathrate
- Number of produced eggs
- Results of NCD, AI monitoring
- Salmonella measurements including results
- Information about communication of Salmonella results to PPE, GD and packingstations

A.d.2.7: Documents to accompany animals when dispatched

When animals are dispatched to other farms they are accompanied by a so-called ‘P-formulier’. For dispatch to slaughterhouse however a different document called ‘VKI – Voedsel Keten Informatie’ is demanded. On this document information like Salmonella status of the flock and use of medicine is registered. Operators wishing to export more than 20 birds or hatching eggs to another EU member state (or certain third countries) must comply with EU Directive 90/539/EC and ensure that the consignment is accompanied by a completed and signed Intra-trade Animal Health Certificate (ITAHC) for poultry breeding and production. The ITAHC will also require the reference number of the operator’s poultry health certificate.

The ITAHC will be amended to include the results of the last test for *Salmonella* as required in Commission Regulation (EC) 2160/2003 Article 9.1 prior to any dispatching of the live animals, or hatching eggs, from the food business of origin. The relevant health certificates provided for in Community legislation must list the date and result of testing. This certificate must be completed and signed by both the official veterinarian and the operator to confirm compliance with the relevant articles of EU Directive.

A.d.2.8: Other relevant measures to ensure traceability of animals

The TRACES system is managed by the Dutch new Food Safety Authority and General Inspection Service (nVWA). An export can only be approved in TRACES if the official veterinarian has given his approval.

PART B

1. Identification of the Programme

Member state:	The Netherlands
Disease:	Infection of laying hen flocks with zoonotic Salmonella spp
Year of implementation:	1-2-2008 until 31-12-2012
Reference of this document:	Final version
Geographical Area:	The Netherlands
Contact:	

J.N. (Hans) Schouwenburg
Product Board for Poultry and Eggs, PPE
Phone: 0031(0)79 368 7937
Fax: 0031(0)79 363 4345
E-mail: hschouwenburg@pve.nl

Date sent to the Commission: 30-04-2011

2. Historical data on the epidemiological evolution of zoonotic Salmonellosis

The Netherlands has two programmes to control the prevalence of Salmonella, one for the broiler production chain (which is the basis for this programme) and one for the egg production chain. In this Chapter these two programmes are discussed, together with the infection percentages in the broiler production chain and the egg production chain found in the past years.

2.1 Broiler Production

In May 1997 a programme to control the prevalence of Salmonella in poultry was started. The programme that was designed was called “Plan of Approach Salmonella and Campylobacter in the Poultry meat sector 1997” and involved strict hygiene rules as well as monitoring of Salmonella infections throughout the broiler production chain. The programme aimed to decrease the prevalence of Salmonella infections in slaughtered broilers to less than 10% by the year 2000. The actions involved in the programme were obligatory for all broiler production operators (from grandparent flock to slaughterhouse and cutting plant) in the Netherlands, pursuant to the legislation of the PPE.

The effects of the programme were evaluated in January 2000. Even though the monitoring results showed a reduction of the percentage of Salmonella infected broilers after slaughter, in the fourth quarter of 1999 still 16% of the slaughtered broilers were infected with Salmonella. This meant that the initial aim was not achieved. This result led to the formulation of a stricter programme: “Action Plan Salmonella and Campylobacter in the Poultry meat sector 2000^{+}”. In this programme the Dutch broiler industry aims for an elimination of all Salmonella serotypes in poultry meat. This target is thus beyond that of the Zoonoses Directive (2003/2160 EG), as this directive only aims for serotypes with public health significance. Again, the actions involved are obligatory for all broiler operators in the Netherlands.

For the Netherlands a Se/St-infection percentage of 1%, based on bacteriological results, was determined through an European study by MSs and analysed by EFSA in October 2005–October 2006. This percentage is the starting-point for the current programme. So at this moment the Netherlands already reached the target mentioned in EG 464/2007 Article 1:*"The Community target, as referred to in Article 1(1) of Regulation (EC) No 646/2007, for the reduction of Salmonella Enteritidis and Salmonella Typhimurium in broilers (Community target) shall be a reduction of the maximum percentage of flocks of broilers remaining positive of Salmonella Enteritidis and Salmonella Typhimurium to 1 % or less by 31 December 2011."*

The effect of implementation of the Action Plan Salmonella and Campylobacter in the Poultry meat sector 2000[+] is shown in Figures 2 and 3. Figure 2 shows the prevalence of Se and St as measured in faecal samples taken at Dutch broiler farms between the 4th quarter of 2004 and the 4th quarter of 2010. Figure 3 shows the prevalence of Se and St as measured in samples of the end product taken at Dutch slaughterhouses for this period.

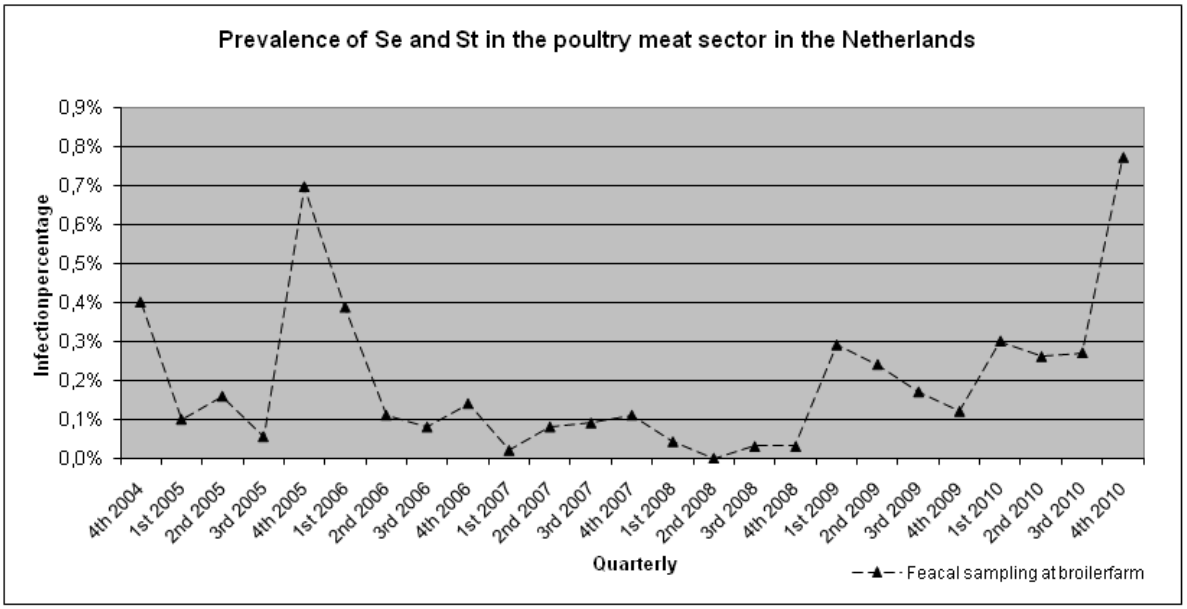

Figure 2: Prevalence of Se and St in faecal samples taken at broiler farms in the Netherlands from the 4th quarter of 2004 until the 4th quarter of 2010 (source: PPE, 2011).

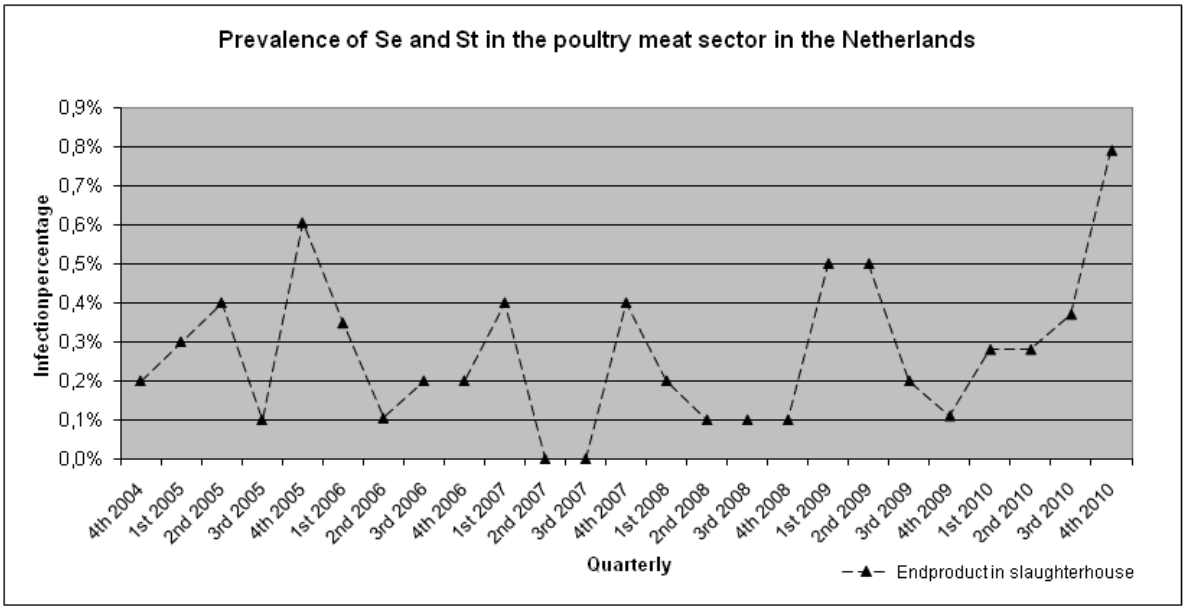

Figure 3: Prevalence of Se and St in end product sampled in slaughterhouses in the Netherlands from the 4th quarter of 2004 until the 4th quarter of 2010 (source: PPE, 2011).

Figure 2 and 3 cannot be combined in one figure while sampling batches are not comparable. Sampling at the broiler farm is done per poultry house and sampling at the slaughterhouse is done per batch, which can consist of more than one poultry house. Note that in Figure 3 data from flocks from foreign countries that have been slaughtered in the Netherlands is included, as such flocks are also tested for Salmonella at the slaughterhouse.

One of the objectives of the current programme is to monitor the prevalence of all serotypes of Salmonella in all links of the poultry production chain. The following figures and tables show some results of the programme. In Figure 4 and Table 1 the monitoring results for Salmonella spp. throughout the poultry production chain are presented from the 1st quarter of 2000 until the 4th quarter of 2010. Figure 5 shows the different serotypes of Salmonella that have been found in faecal samples taken from the infected flocks in the 4th quarter of 2010. In Table 2 the prevalence of Salmonella spp. in the end products at the slaughterhouse is shown from the 3rd quarter of 2000 until the 4th quarter of 2010. Figure 6 shows the different serotypes of Salmonella that have been found in infected end product samples taken at the slaughterhouse in the 4th quarter of 2010.

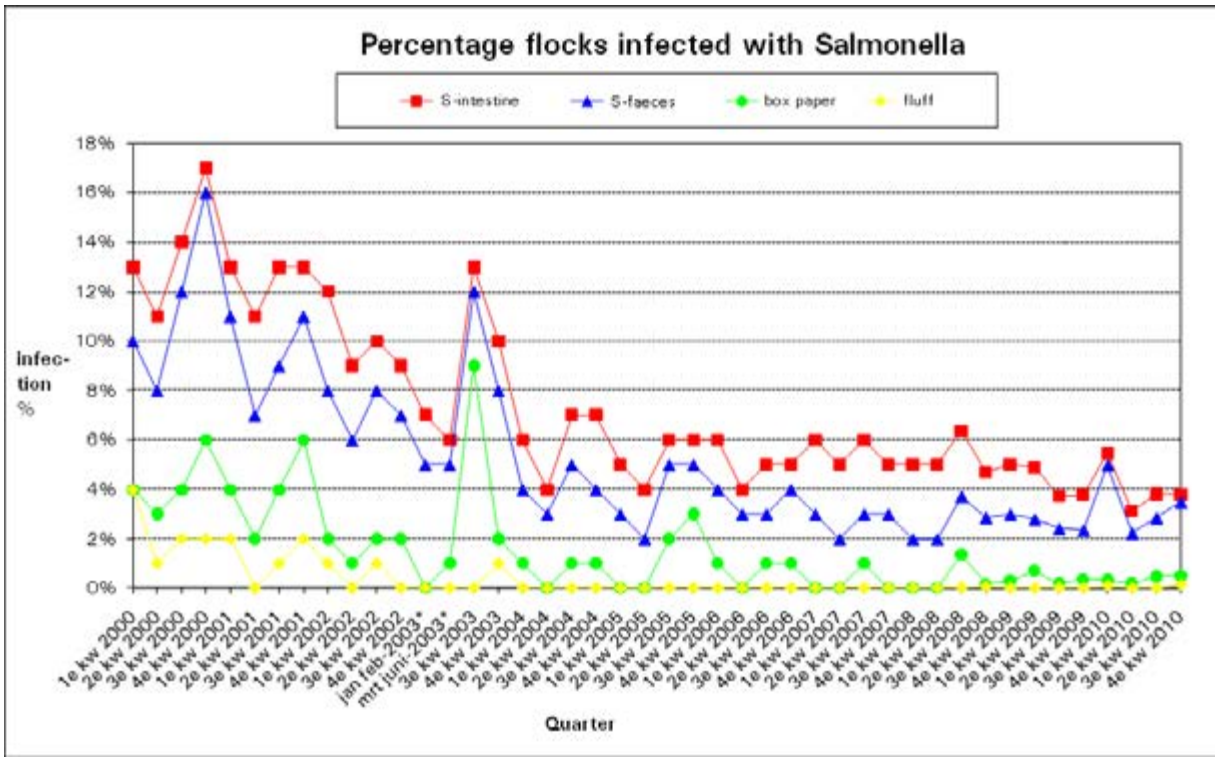

Figure 4: Prevalence of Salmonella spp. in samples taken at different levels in the poultry production chain from the 1st quarter of 2000 until the 4th quarter of 2010. In this figure, fluff represents the percentage of Salmonella positive fluff-samples taken from the hatcheries at the end of the hatching process; box paper is the percentage of Salmonella positive samples taken from the day-old chicken box paper at the broiler farms; S-faeces is the percentage of Salmonella positive faecal samples taken at the broiler farms; and S-intestine is the percentage of Salmonella positive intestine samples taken at the slaughterhouse (Source: PPE, 2011).

Table 1: Prevalence of Salmonella spp. in samples taken at different levels in the poultry production chain from the 1st quarter of 2002 until the 4th quarter of 2010 (source: PPE, 2011). See Figure 4 for explanation of sampling types.

Time Frame	S-intestine	S-faeces	Boxpaper	Fluff
4th quarter 2010	4%	4%	1%	0%
3rd quarter 2010	4%	3%	1%	0%
2nd quarter 2010	3%	2%	0%	0%
1st quarter 2010	6%	5%	0%	0%
4th quarter 2009	4%	2%	0%	0%

3rd quarter 2009	4%	2%	0%	0%
2nd quarter 2009	5%	3%	1%	0%
1st quarter 2009	5%	3%	0%	0%
4th quarter 2008	5%	3%	0%	0%
3rd quarter 2008	6%	4%	1%	0%
2nd quarter 2008	5%	2%	0%	0%
1st quarter 2008	5%	2%	0%	0%
4th quarter 2007	5%	3%	0%	0%
3rd quarter 2007	6%	3%	1%	0%
2nd quarter 2007	5%	2%	0%	0%
1st quarter 2007	6%	3%	0%	0%
4th quarter 2006	5%	4%	1%	0%
3rd quarter 2006	5%	3%	1%	0%
2nd quarter 2006	4%	3%	0%	0%

(Table 1 continues on next page)

1st quarter 2006	6%	4%	1%	0%
4th quarter 2005	6%	5%	3%	0%
3rd quarter 2005	6%	5%	2%	0%
2nd quarter 2005	4%	2%	0%	0%
1st quarter 2005	5%	3%	0%	0%
4th quarter 2004	7%	4%	1%	0%
3rd quarter 2004	7%	5%	1%	0%
2nd quarter 2004	4%	3%	0%	0%
1st quarter 2004	6%	4%	1%	0%
4th quarter 2003	10%	8%	2%	1%
3rd quarter 2003	13%	12%	9%	0%
March till June 2003*	6%	5%	1%	0%
January & February 2003	7%	5%	0%	0%
4th quarter 2002	9%	7%	2%	0%
3rd quarter 2002	10%	8%	2%	1%
2nd quarter 2002	9%	6%	1%	0%
1st quarter 2002	12%	8%	2%	1%

* In this period Avian Influenza problems were overruling the monitoring of Salmonella.

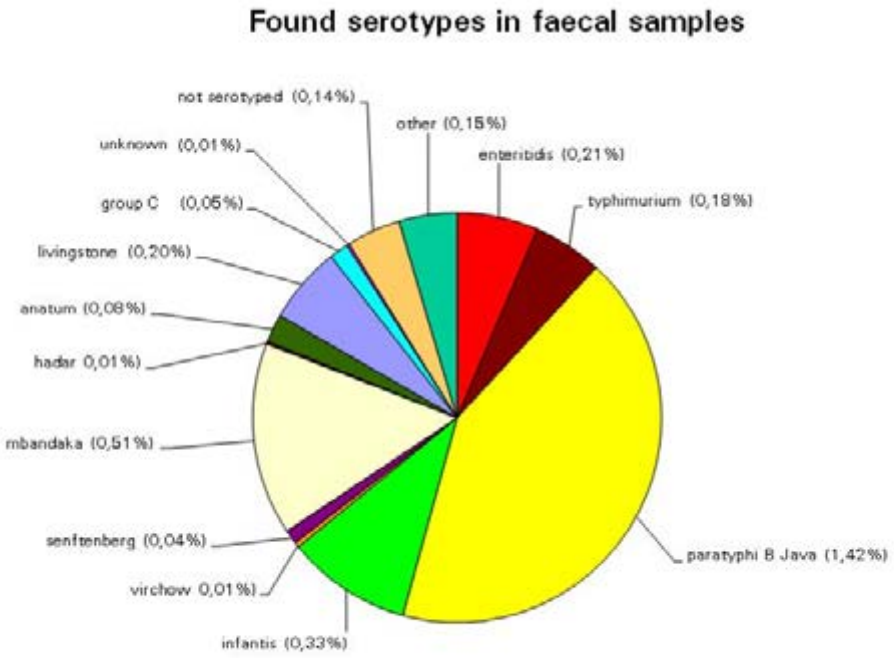

Figure 5: Specification of the different serotypes of Salmonella found in faecal samples taken from the infected flocks in the 4th quarter of 2010 (source: PPE, 2011).

Table 2: Prevalence of Salmonella spp. in samples taken of the end products at slaughterhouses from the 3rd quarter of 2000 until the 4th quarter of 2010 (source: PPE, 2011)

End product	**Salmonella**
4th quarter 2010	5%
3rd quarter 2010	6%
2nd quarter 2010	5%
1st quarter 2010	5%
4th quarter 2009	5%
3rd quarter 2009	6%
2nd quarter 2009	8%
1st quarter 2009	7%
4th quarter 2008	5%
3rd quarter 2008	7%
2nd quarter 2008	6%
1st quarter 2008	6%
4th quarter 2007	8%
3rd quarter 2007	9%
2nd quarter 2007	9%
1st quarter 2007	7%
4th quarter 2006	7%
3rd quarter 2006	7%
2nd quarter 2006	5%
1st quarter 2006	6%
4th quarter 2005	9%
3rd quarter 2005	7%
2nd quarter 2005	5%
1st quarter 2005	7%
4th quarter 2004	7%
3rd quarter 2004	7%
2nd quarter 2004	6%
1st quarter 2004	6%
4th quarter 2003	9%
3rd quarter 2003	15%
March till June 2003*	12%
January & February 2003	9%
4th quarter 2002	9%
3rd quarter 2002	12%
2nd quarter 2002	13%
1st quarter 2002	14%
4th quarter 2001	15%
3rd quarter 2001	17%
2nd quarter 2001	15%
1st quarter 2001	20%
4th quarter 2000	22%
3rd quarter 2000	22%

* In this period Avian Influenza problems were overruling the monitoring of Salmonella.

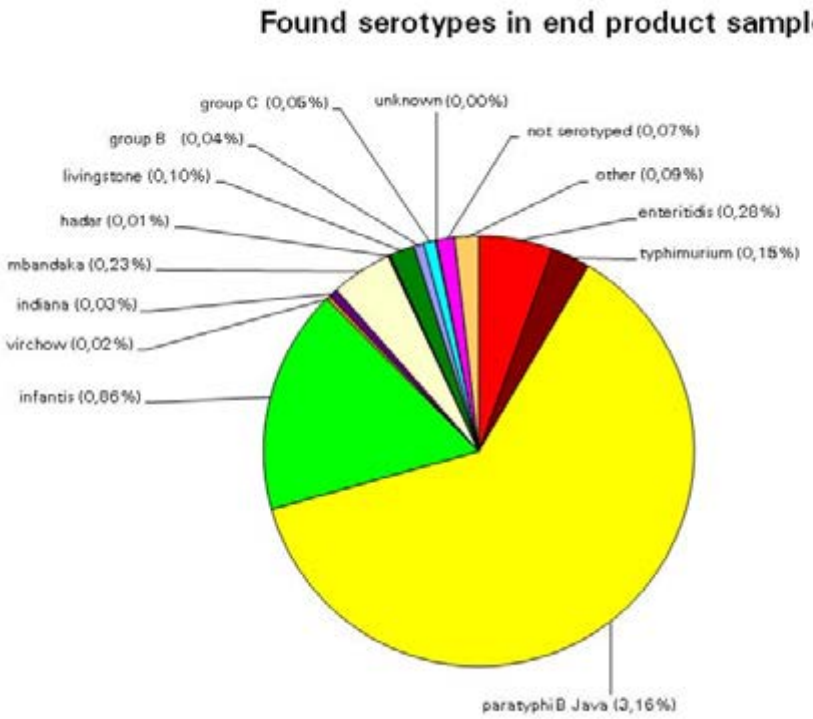

Figure 6: Specification of the different serotypes of Salmonella found in infected end product samples taken at the slaughterhouse in the 4th quarter of 2010 (source: PPE, 2011).

2.2 Egg production

In November 1997 a programme to control the prevalence of Salmonella in laying hens was started; the “Plan of Approach prevention and control of Salmonella in the egg industry 1999”. The objective of this programme was to reduce the Se/St prevalence in flocks of laying hens to 5 percent or less by November 2000. This programme involved strict hygiene rules and the monitoring of Salmonella infections throughout the egg production chain. However, this objective was not reached, so a new programme was introduced in the beginning of 2001. The aim of this programme, called “Action Plan Salmonella in egg production 2001+”, was to strive for a 0+ percent of contaminated eggs. In this stricter approach the eggs of contaminated flocks of laying hens are delivered to the egg product industry, for a special allowed treatment. The actions involved in both programmes were/are obligatory, pursuant to the legislation of the PPE.

Until January 2008 the incidence of Se/St infections in Dutch flocks of laying hens was monitored by taking blood samples of at least 0.5 percent of every flock (with a minimum of 24 and a maximum of 60 animals) before removal at the end of the production period. The samples were analyzed by the Animal Health Service and reported to the PPE. Table 3 shows the percentage of Se/St infected layer hen flocks in the period from November 1997 until December 2007. From the 1st of February 2008 the monitoring has changed to bacteriological analysis of faecal samples taken every 15 weeks in accordance with EU Regulation 1168/2006.

Table 3: Se/St infections in layers, based on serological results obtained from 1997 until 2007 (source: PPE, 2008).

Year	Number of flocks	SE infected	% SE infected	ST infected	% ST infected
1997*	258	35	13,6	2	0,8
1998	1631	181	11,1	6	0,4
1999	1705	181	10,6	3	0,2
2000	2010	229	11,4	6	0,3
2001	1978	177	8,9	4	0,2
2002	1873	165	8,8	7	0,4
2003	864	59	6,8	3	0,3
2004	1500	101	6,7	3	0,2
2005	1952	64	3,3	3	0,2
2006	1878	85	4,5	6	0,3
2007	1870	109	5,8	0	0

*Start of programme November 1997

Over the period from February 1999 to December 2000 11,4 percent of the examined layer flocks tested Se/St positive. After the introduction of the stricter programme “Action Plan Salmonella in egg production 2001^{+}” the Se/St-infection percentage, based on serological results, of layers decreased towards 5.8 % in 2007. This might be in part due to the increased use of vaccines against Se of the layers.

For the Netherlands a Se/St-infection percentage, based on bacteriological results, of 7.8 % was determined through a European study “Analysis of the baseline study on the prevalence of Salmonella in laying hen flocks of Gallus gallus”.

From 1st February 2008 EG 1168/2006 was implemented in the Action plan Salmonella in egg production 2001^{+} in the Netherlands. Table 4 shows the results of the bacteriological tests in layer flocks in accordance with the EU-regulation 1168/2006 performed from 2008 onwards. They are in accordance with the Community target set for the Netherlands. In 2009 and 2010 the percentage of Se/St infected layer flocks was even below the end target of the community of 2%.

Table 4: Se/St infections in layers, based on bacteriological results from 2008 until 2010 (source: PPE, 2011).

Year	Number of flocks	SE infected	% SE infected	ST infected	% ST infected
2008	2346	61	2,60	1	0,04
2009	2240	29	1,29	4	0,18
2010	2426	26	1,07	0	0

3. Description of the submitted programme

3.1 Target Veterinary Control Programme for laying hen flocks.

The target for the reduction of SE and ST in laying hen flocks of Gallus gallus is a reduction of the maximum percentage of infected flocks with 10 percent each year or a reduction of the maximum percentage to 2 percent or less. In accordance with EU Regulation 1168/2006 the scope of this programme is limited to laying hen flocks. Starting-point is an infection percentage of 7.8 in 2006.

3.2 Monitoring of the Veterinary Control Programme

Monitoring is in accordance with EU Regulations 2160/2003 and 1168/2006.
In Table 3 a short overview of the monitoring programme in rearing layers and laying hens is given. In paragraph 3.2.1 and 3.2.2 the monitoring programme is explained in more detail .

Table 4: Monitoring in rearing layers and laying hen flocks

Part of the production chain	**Monitoring**
Rearing layers	Max. 14 days before transfer: blood samples (0,5% of the animals in a flock with a min. of 24 and a max. of 60 samples) or samples of faecal material.
Laying hens	Every 15 weeks (as of the age of 24 weeks +/- 2 weeks): samples of faecal material.

3.2.1 Laying flocks

A. Monitoring through the operator
Monitoring in laying hen flocks is being done each 15 weeks as of the age of 24 weeks +/- 2 weeks. The monitoring takes place at the holding. The operator managing the laying hen flock is responsible for the monitoring. When a SE/ST positive sample is found, a verification test will take place at the holding. The verification test is carried out by the Animal Health Service (GD) and guarantees quality and independency. If verification is negative, the flock is not considered to be infected with Salmonella.
During monitoring samples are taken from faecal material, according to the following protocol:

a) In cage flocks, 2 x 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 x 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 are taken, without changing over boots between boot swabs.

B. Official sampling
Every year an official sampling is being done at the holdings, which shall replace on that occasion the corresponding sampling at the initiative of the operator. Official sampling is being done:

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 SE or ST 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 SE or ST are detected in one laying flock on the holding;
e) In cases where the competent authority considers it appropriate.

When a positive sample is found, a verification test will take place at the holding.

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 sock shall be taken.

In the case of sampling referred to in point b, c or d mentioned above, the competent authority shall satisfy itself by conducting 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 SE and ST is not detected, but antimicrobials or bacterial growth inhibitory effect is, it shall be accounted for as an infected laying flock.

3.2.2 Rearing layers

Day-old chicks are monitored in the hatchery according to PPE directive “Hygiënebesluit kuikenbroederijen legsector”. To monitor the incidence of SE / ST infections in Dutch pullets a blood sample of at least 0.5 percent (with a minimum of 24 and a maximum of 60 animals) of every flock is taken maximum 14 days before moving to laying phase or laying unit. As an alternative to the blood sample, sampling with two pairs of boot swabs (as prescribed for layers) is possible. The test results are analysed by Animal Health Service and reported to the PPE. When a SE/ST positive sample is found, GD will carry out a verification test at the holding.

3.3 Measures to be taken in case of Salmonella positive findings

3.3.1 Laying hens

Measures to be taken in case of SE / ST positive findings in laying hen flocks are: verification in case of suspicion. After verification with a positive result:

a) after professional cleaning and disinfection a swab test of the poultry house must be done, executed by a by the PPE acknowledged company;
b) vaccination of all new flocks placed in the holding, until all flocks in the holding are vaccinated.

Eggs originating from a SE/ST suspected or infected flock or from flocks with an unknown health status must be adequately marked. They must be destroyed or channelled to the egg processing industry. They can only be used for human consumption if treated in a manner that guarantees the elimination of all salmonella serotypes with public health significance, in accordance with Community legislation (EU Regulation 1237/2007).

Suspicion= positive result after first test
Infection= positive result after verification test
In case of a SE/ST-positive flock of up to 43 weeks of age, the flock can be eradicated
If a SE/ST-positive flock is not eradicated or over 43 weeks of age, then the flock will stay in the programme and will be monitored according to the programme (every 15 weeks).

3.3.2 Rearing layers

Measures to be taken in case of SE / ST positive findings in rearing layers:

a) verification in case of suspicion;
b) After verification with a positive result: the flock can be eradicated and additional measures will be taken according to PPE directive “Hygiënebesluit opfokleghennenbedrijven 2007”.

3.4 Measures in Action Plan Salmonella in egg production 2001+

Components of current Action Plan Salmonella in egg production 2001+:
1. hygiene requirements;
2. cleaning and disinfection;
3. sampling;
4. exchange sampling results throughout the chain;
5. measures taken in case of Salmonella infection.

Additional hygiene requirements are laid down in a Quality Assurance Programme for the egg production sector (called IKB). Participation with this programme is voluntary. Almost 70% of the laying hen farmers do participate.

3.5 Additional measures if target Veterinary Control Programme is not met

If the target of the programme is not met after one year, compulsory vaccination of all laying hen flocks, as an additional measure will be considered.

4. MEASURES OF THE SUBMITTED PROGRAMME

4.1 Summary of measures under the programme

Duration of the programme:
The programme runs from 1 February 2008 until at least 31 December 2012. The Veterinary Control Programme is in accordance with the requirements laid down in EU Regulations 1260/2003, 1168/ 2006 and 1237/2007.

First year (2008):

- Control:
  - Testing
  - Killing of animals tested positive
  - Vaccination (voluntary)
  - Treatment of animal products
- Monitoring or surveillance
- Other measures:
  - Hygiene measurements
  - Cleaning and disinfection
  - Sampling
  - Exchange sampling results throughout the chain
  - Measures taken in case of Salmonella infections

Last year:

- Control:
  - Testing
  - Killing of animals tested positive
  - Vaccination (voluntary)
  - Treatment of animal products
- Monitoring or surveillance
- Other measures:
  - Hygiene measurements
  - Cleaning and disinfection
  - Sampling
  - Exchange sampling results throughout the chain
  - Measures taken in case of Salmonella infections

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

In the Netherlands the Product Board for Poultry and Eggs is responsible for the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation is the central authority and supervises this implementation. In Figure 7, all organizations involved are displayed with their mutual connections and their relation to the programme.

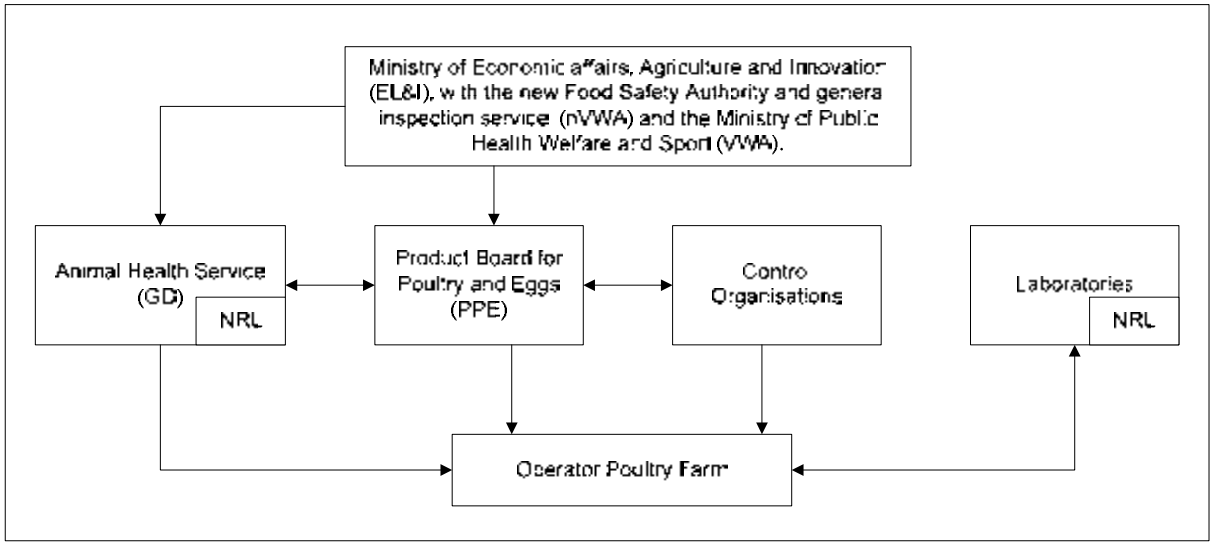

Figure 7: Organizational scheme of the organizations involved in the veterinary control programme for Salmonella in poultry

1. PPE

The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)
Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA
The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations
The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories
In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the *Salmonella* status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of *Salmonella*). All of the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute of Public Health and Environment)
The RIVM is the Dutch national reference laboratory for *Salmonella*. The RIVM falls under the Ministry of VWA, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

7. Structure of the Production of Feed
Regulations for the production of feed are laid down in the “Kaderwet Diervoeders” by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the “Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005” and the “Besluit PDV Salmonella in de diervoedersector 2005”. For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

Furthermore a quality assurance programme for feed exists in addition to these regulations. This programme is the Good Manufacturing / Managing Practice (GMP) system. When combined with the HACCP principles this quality assurance programme is called GMP+. Almost all feed

producers for the poultry chain are GMP+ certified. All IKB certified poultry farmers, i.e. farmers that participate in the voluntary Dutch Integral Chain Control programme, are obligated to use GMP+ certified feed. The GMP+ standards include control measures for base materials, rules for additives, sampling schemes for zoonoses, hygiene and process criteria and compulsory regularly controls by an independent control organization.

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

Geographical limitations: The Netherlands.

4.4 Measures implemented under the programme

4.4.1 Measures and terms of legislation as regards the registration of the holding

All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation 'Verordening productie van en handel in broedeieren en levend pluimvee (PPE)". All the information is stored in a central database called the "Koppel Informatiesysteem Pluimvee (KIP-system)". This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

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

Not applicable for poultry.

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

In case of a SE and ST infection the laboratory that signalises the first indication / suspicion has to inform GD (Animal Health Service) and the farmer. After this a verification study will take place. When the infection is confirmed the PPE and the farmer are informed.

Each veterinarian has the obligation to notify Salmonella to the GD. This is specified in legislation of the Ministry of Agriculture, Nature and Food Quality, "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". Directives of the PPE state that the farmer has to notify Salmonella. In most cases the veterinarian will do this for the farmer.

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

The measures that have to be taken in case of a positive result are laid down in directives of the PPE. The Ministry of Agriculture, Nature and Food Quality and Ministry of Public Health, Welfare and Sport (VWS) have to approve these directives. All measures are stated in Chapter 3. Whenever a positive flock is found by own-check sampling in the frame of the programme in laying hens, than this flock should be considered as a suspect flock and movement restrictions are mandatorily imposed on this flock**.**
In the frame of the *Salmonella* control programme in laying flocks of *Gallus gallus* the provisions of paragraph 1 and 2 (frequency of sampling) 4 (results and reporting) of Annex of Commission Regulation (EC) No 1168/2006 (particularly provisions on exceptional cases)are implemented

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

Not applicable for poultry.

4.4.6 Control procedures and in particular rules on the movement of animals liable to be contaminated with Salmonella

When birds from infected flocks are slaughtered or destroyed, steps are taken to reduce the risk of spreading zoonoses as far as possible. Slaughtering will be carried out in accordance with Community legislation on food hygiene. If not destined for human consumption, such products must be used or disposed of in accordance with Regulation (EC) No 1774/2002.

4.4.7 Measures and applicable legislation as regards control (testing, vaccination) of Salmonella

The tests that are performed in the Action Plan are:
PVE branch method for Salmonella analysis: this method includes the use of Modified Semi solid Rapport Vassiliadis agar (MSRV) as a selective enrichment medium. The semi solid medium should be incubated at 41.5 °C +/- 1 °C for 48 h. Alternative methods for detection will be permitted (for example Salmonella analysis by PCR), when the methods are approved as valid by the CRL. In case of a positive finding, serotyping is performed according to the Kaufmann-White scheme.

Salmonella vaccines
Vaccination is not compulsory in the frame of the Salmonella control programme, while the prevalence of Salmonella enteritidis in the Netherlands is below 10% (EU Regulation 1177/2006, Article 3.3).
In the Netherlands a large number of the parent flocks (egg production sector and broiler production sector) are vaccinated against Salmonella. Grandparent flocks are not vaccinated. There is no central database with information on the number of vaccinated flocks.

In the egg production sector Salmonella vaccines are used for parent flocks and layer flocks. An estimated 100% of the parent flocks and 95% of the layer flocks are vaccinated.

Only vaccines that are officially registered for use in poultry can be administered:

- Parent flocks: TAD Vac E en Vac T (Lohmann), Nobilis Salenvac T (Intervet), Gallivac Se (Merial)
- Layer flocks: TAD Vac E (Lohmann), TAD Vac T (Lohmann)and Gallivac SE (Merial), Nobilis Salenvac T (Intervet), Gallimune Se + St (Merial)

These vaccines comply with the regulations laid down in EU Regulation 1177/2006, Article 3.1 and 3.2.

Antimicrobials
The use of antimicrobials is prohibited except for circumstances laid down in EU Regulation 1177/2006, Article 2.

4.4.8 Measures and applicable legislation as regards the compensation for owners of canalized eggs

Depending on the content of the appropriate EU regulations compensation will be given for eradication of laying hens, vaccination of laying flocks, sampling (standard, official and

verification) and canalization of eggs. The financial contribution for the farmer and the measures to be taken to receive the contribution will be specified in legislation of the PPE.

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

Besides the control programme for Salmonella, each flock will be checked once by a veterinarian, in accordance to the GVP-code (Good Veterinarian Practice). This is a Dutch quality code for veterinarians and ensures that the veterinarian has knowledge of poultry (including turkeys).

Each poultry farmer has to comply with the following bio-security measures, laid down in the directive "Verordening Hygiënevoorschriften Pluimveehouderij (PPE) 2007". All farmers are inspected once a year for compliance with these regulations.

1. Hygiene management at farms:

    c) No pets, stock or (other) poultry are allowed in the poultry house
    d) If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measures are required (like separate care)
    e) No wild birds can enter the poultry house
    f) Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measures (including special clothing)
    g) Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    h) Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    i) Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    j) The poultry house, the poultry farm and its close environment are clean
    k) Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes
    l) The drive- and walking routes to the farm are paved and cleanable
    m) The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo's, every silo has a unique number
    n) Feed and litter is stored in such a way that it stays clean, dry and mould free
    o) Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

Every holding is obligated to inform the packing station where the eggs are transferred, about the Salmonella status of the eggs. This is laid down in the directive "Verordening Hygiënevoorschriften Pluimveehouderij (PPE)".

In accordance with EU Regulations 852/2004 and 853/2004 Guides for Good Practices are being developed for the poultry sector. In these guides HACCP principles and traceability measures are implemented. The guides for poultry farms are based on the quality system IKB. This quality assurance system for the whole poultry chain is developed in the Netherlands by the PPE. More than 80 % of the poultry farms are currently certified for IKB. IKB standards include hygiene management at farms, measures to prevent incoming infections and the hygienic transportation of animals.

5. General description of the costs and benefits

5.1. Human salmonellosis

The incidence of human Salmonellosis from 1984 until 2010 in the Netherlands, is outlined in Figure 8.

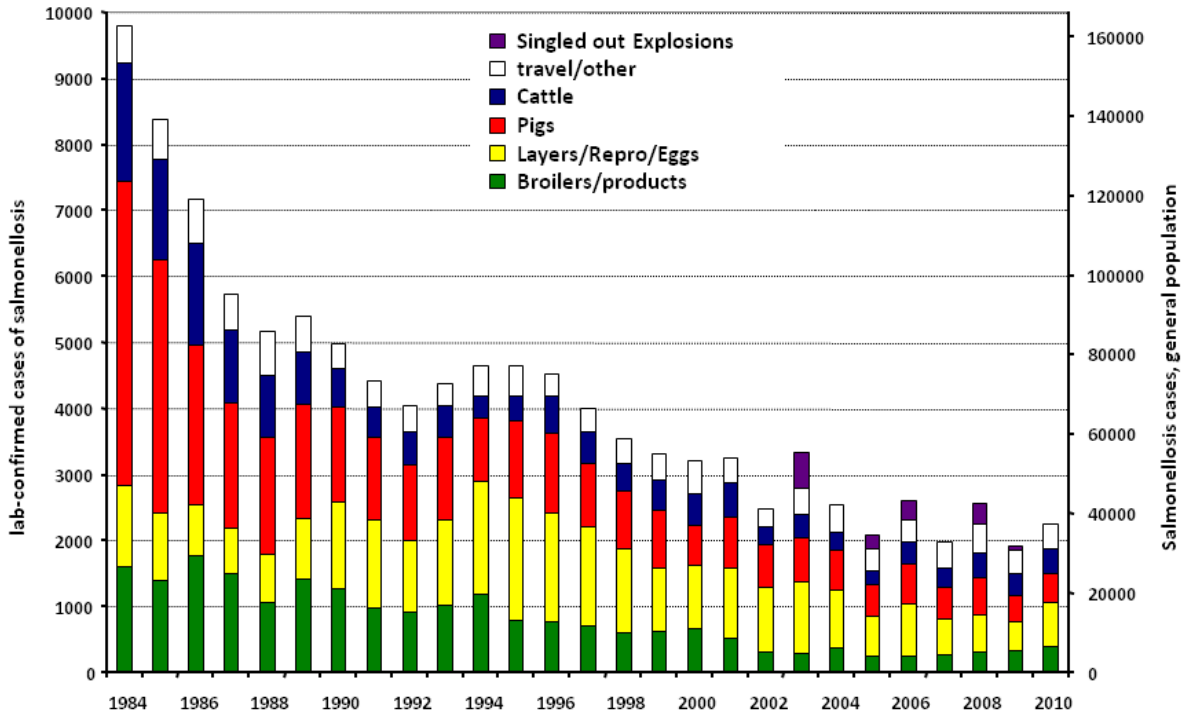

Figure 8: Occurrence of human cases of Salmonellosis in the Netherlands, with Salmonellosis caused by eggs depicted in yellow and Salmonellosis caused by poultry meat in green (source: PPE, 2011)

Detailed cost benefits data are not available.

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

6.1 Evolution of zoonotic salmonellosis

6.1.2 Data on evolution of zoonotic salmonellosis

Year: 2006 **Situation on date:** april 2007
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive 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)	(a3)	(a4)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Laying hens	1878	28 million	1878	28 million	1878	85	6	NA	0	0	0	0	0	0	0	0
	Rearing layers	1561	31,2 million	1561	31,2 million	1561	0	1	NA	0	0	0	0	0	0	0	0
Total		3439	59,2 million	3439	59,2 million	3439	85	7	NA	0	0	0	0	0	0	0	0

Year: 2007 **Situation on date:** april 2008
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive 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)	(a3)	(a4)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Laying hens	1870	30,1 million	1870	30,1 million	1870	109	0	NA	0	0	0	0	0	0	0	0
	Rearing layers	1386	28,1 million	1386	28,1 million	1386	0	0	NA	0	0	0	0	0	0	0	0
Total		3256	58,1 million	3256	58,1 million	3256	109	0	NA	0	0	0	0	0	0	0	0

Year: 2008[1] **Situation on date:** april 2009
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a3)	(a4)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Laying hens	2346[2]	35,8 million	2346	35,8 million	2346	61	1	NA	0	0	0	0	0	0	156 million	0
	Rearing layers	1116	31,2 million	1116	31,2 million	1116	0	0	NA	0	0	0	0	0	0	0	0
Total		3462	67 million	3462	67 million	3462	61	1	NA	0	0	0	0	0	0	156 million	0

Year: 2009 **Situation on date:** april 2010
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a3)	(a4)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Laying hens	2240	37,1 million	2240	37,1 million	2240	29	4	NA	0	0	0	0	0	0	114 million	0
	Rearing layers	1235	35 million	1235	35 million	1235	0	0	NA	0	0	0	0	0	0	0	0
Total		3475	67 million	3475	67 million	3475	29	4	NA	0	0	0	0	0	0	114 million	0

Year: 2010 **Situation on date:** april 2011
Animal species: poultry **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive flocks[(a)][(e)]			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)	(a3)	(a4)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Laying hens	2426	40,7 million	2426	40,7 million	2426	26	0	NA	0	1	17280	0	0	0	85 million	0
	Rearing layers	1220	36 million	1220	36 million	1220	0	0	NA	0	0	0	0	0	0	0	0
Total		3646	76,7 million	3646	76,7 million	3646	26	0	NA	0	1	17280	0	0	0	85 million	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.
(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.

NA: data not available

[1] In 2008 the monitoring changed from serological to bacteriological testing.
[2] Up to 2007 only laying hen flocks at the end of their production period were monitored. From 2008 onwards all laying hen flocks in production were monitored. The production period is approx. 15-16 months. That is the reason for the increase in the number of flocks participating in the programme.

6.2 Stratified data on surveillance and laboratory tests

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

Year: 2007 **Animal species [a]:** poultry **Category[b]:** laying hens
Description of the used serological tests: ELISA in blood

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	3300	109	0	0	N/A	N/A
Total	3300	109	0	0	N/A	N/A

Year: 2008 **Animal species [a]:** poultry **Category[b]:** laying hens
Description of the used serological tests: ELISA in blood

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	1100	0	6000	62	N/A	N/A
Total	1100	0	6000	62	N/A	N/A

Year: 2009 **Animal species [(a)]:** poultry **Category[(b)]:** laying hens

Description of the used serological tests: ELISA in blood

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[(c)]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[(d)]	Number of positive samples[(e)]	Number of samples tested[(d)]	Number of positive samples[(e)]	Number of samples tested[(d)]	Number of positive samples[(e)]
Netherlands	600	0	7000	33	N/A	N/A
Total	600	0	7000	33	N/A	N/A

Year: 2010 **Animal species [(a)]:** poultry **Category[(b)]:** laying hens

Description of the used serological tests: ELISA in blood

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[(c)]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[(d)]	Number of positive samples[(e)]	Number of samples tested[(d)]	Number of positive samples[(e)]	Number of samples tested[(d)]	Number of positive samples[(e)]
Netherlands	600	0	7000	26	N/A	N/A
Total	600	0	7000	26	N/A	N/A

(a) Animal species if necessary.
(b) Category/further specifications such as breeders, laying hens, broilers ,breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc, when appropriate.
(c) Region as defined in the approved control and eradication programme of the Member State.
(d) Number of samples tested.
(e) Number of positive samples.

6.3 Data on infection

Year: 2006 **Animal species[a]::** poultry (laying hens)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	91	1.456.000
Total	91	1.456.000

Year: 2007 **Animal species[a]::** poultry (laying hens)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	109	1.744.000
Total	109	1.744.000

Year: 2008[d] **Animal species[a]::** poultry (laying hens)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	62	992.000
Total	62	992.000

Year: 2009 **Animal species[a]::** poultry (laying hens)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	33	500.000
Total	33	500.000

Year: 2010 **Animal species[a]::** poultry (laying hens)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	26	440.000
Total	26	440.000

(a) Animal species if necessary.
(b) Region as defined in the control and eradication programme of the Member State.
(c) Herds or flocks or holdings as appropriate.
(d) In 2008 the monitoring changed from serological to bacteriological testing

6.4 Data on vaccination programmes

Year: 2008 **Animal species: [a]:** poultry (laying hens)

Description of the used vaccination), SG9R (Intervet), TAD Vac E (Lohmann), TAD Vac T (Lohmann) and Gallivac SE (Merial), Nobilis Salenvac T (Intervet), Gallimune Se + St (Merial)

Region[b]	Total number of herds[c]	Total number of animals	Information on vaccination programme			
			Number of herds[c] in vaccination programme	Number of herds[c] vaccinated	Number of animals vaccinated	Number of doses of vaccine administered
Netherlands	2346	35,7 million	1700[d]	1550	24,3 million	67 million
Total	2346	35,7 million	1700	1550	24,3 million	67 million

Year: 2009 **Animal species: [a]:** poultry (laying hens)

Description of the used vaccination), SG9R (Intervet), TAD Vac E (Lohmann), TAD Vac T (Lohmann) and Gallivac SE (Merial), Nobilis Salenvac T (Intervet), Gallimune Se + St (Merial)

Region[b]	Total number of herds[c]	Total number of animals	Information on vaccination programme			
			Number of herds[c] in vaccination programme	Number of herds[c] vaccinated	Number of animals vaccinated	Number of doses of vaccine administered
Netherlands	2240	37,1 million	1600[d]	1500	27,2 million	71,6 million
Total	2240	37,1 million	1600	1500	27,2 million	71,6 million

Year: 2010 **Animal species: [a]:** poultry (laying hens)

Description of the used vaccination), SG9R (Intervet), TAD Vac E (Lohmann), TAD Vac T (Lohmann) and Gallivac SE (Merial), Nobilis Salenvac T (Intervet), Gallimune Se + St (Merial)

Region[b]	Total number of herds[c]	Total number of animals	Information on vaccination programme			
			Number of herds[c] in vaccination programme	Number of herds[c] vaccinated	Number of animals vaccinated	Number of doses of vaccine administered
Netherlands	2426	40,7 million	2000[d]	1900	31,7 million	93,4 million
Total	2426	40,7 million	2000	1900	31,7 million	93,4 million

(a) Animal species if necessary.
(b) Region as defined in the approved control and eradication programme of the Member State.
(c) Herds or flocks or holdings as appropriate.
(d) The number of animals vaccinated in a year is lower than the total number of hens in production. The reason for that is that the production period of laying hens is longer than one year.

7. Targets

7.1 Targets related to testing

7.1.1. Targets on diagnostic tests

Year: 2012 **Animal species: [(a)]:** poultry (laying hens)

Region[(b)]	Type of the test[(c)]	Target population [(d)]	Type of sample[(e)]	Objective [(f)]	Number of planned tests
Netherlands	ELISA/MSRV	Rearing layers	Blood/faeces	monitoring	600
Netherlands	MSRV	Laying hens	faeces	monitoring	7000
Total					7600

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

7.1.2 Targets on testing of flocks

Year: 2012 **Situation on date:** December 2010
Animal species: poultry **infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Expected number of flocks to be checked[(d)]	Number of flocks[(e)] expected to be positive [(a)]			Number of flocks expected to be depopulated[(a)]		Total number of animals expected to be slaughtered or destroyed [(a)]		Expected quantity of eggs to be destroyed (number or kg) [(a)]		Expected quantity of eggs channelled to egg products (number or kg) [(a)]	
							(a1)	(a2)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Laying hens	2400	40 million	2400	37,1 million	2400	29	4	NA	6	0	100.000	0	0	0	114 million	0
	Rearing layers	1220	36 million	1220	35 million	1220	1	0	NA	1	0	28.000	0	0	0	0	0
Total		3620	76 million	3620	72,1 million	3620	30	4	NA	7	0	128.000	0	0	0	114 million	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.

(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.

7.2 Targets

7.2.1. Targets on vaccination [1]

Year: 2012 **Animal species:** [(a)]**:** poultry (laying hens)

Region[(b)]	Total number of herds[(c)] in vaccination programme	Total number of animals in vaccination programme	Targets on vaccination programme			
			Number of herds[(c)] in vaccination programme	Number of herds[(c)] expected to be vaccinated	Number of animals expected to be vaccinated	Number of doses of vaccine expected to be administered
Netherlands	2400	40 million	2000	1900	31 million	93 million
Total	2400	40 million	2000	1900	31 million	93 million

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

1 Data to provide only if appropriate.

8. Detailed analysis of the costs estimate of the programme for 2012

Costs related to	*Specification*	*Number of units*	*Unitary cost in EUR*	*Total amount in EUR*	*Community funding requested (yes/no)*
1. Testing					
1.1. Cost of the analysis	***Test:* Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling**	**2400**	**18,39**	**44.136**	**No**
	***Test:* Number of serotyping of relevant isolates tests planned to be carried out**	**200**	**33,80**	**6.760**	**No**
1.2. Cost of sampling		**2400**	**106,75**	**256.200**	**No**
1.3. Other costs		**NA**	**NA**	**NA**	**No**
2. Vaccination or treatment of animal products					
2.1. Purchase of vaccine/treatment of animal products					
	Number of purchase of vaccine doses planned if a vaccination policy is part of the programme as set out explicitly under point 4 of Annex II	**93 million**	**0,05**	**4.650.000**	**yes**
2.2. Distribution costs		**NA**	**NA**	**NA**	**No**
2.3. Administering costs		**NA**	**NA**	**NA**	**No**
2.4. Control costs		**NA**	**NA**	**NA**	**No**
3. Slaughter and destruction					
3.1. Compensation of animals	**Rearing (1 flock)**	**28.000**	**4**	**112.000**	**yes**

Costs related to	*Specification*	*Number of units*	*Unitary cost in EUR*	*Total amount in EUR*	*Community funding requested (yes/no)*
	Layers (2 flocks)	**30.000**	**5**	**150.000**	**yes**
3.2. Transport costs		**NA**	**NA**	**NA**	**No**
3.3. Destruction costs		**58.000**	**1**	**58.000**	**yes**
3.4. Loss in case of slaughtering		**NA**	**NA**	**NA**	**No**
3.5 Costs from treatment of animal products (milk, eggs, hatching eggs, etc)		**NA**	**NA**	**NA**	**No**
4. Cleaning and disinfection		**NA**	**NA**	**NA**	**No**
5. Salaries (staff contracted for the programme only)		**NA**	**NA**	**NA**	**No**
6. Consumables and specific equipment		**NA**	**NA**	**NA**	**No**
7. Other costs	**Loss in case of heat treatment of eggs from Se/St infected layer flocks**	**114 million**	**0,02**	**2.280.000**	**No**
TOTAL					

TOTAL COSTS REQUESTED FOR COMMUNITY FUNDING IN 2012 FOR LAYING HEN FLOCKS

	Total costs	**Request community funding (=50%)**
Costs of vaccination (2.1)	€ 4.650.000	€ 2.325.000
Compensation of eradicated animals (3.1)	€ 262.000	€ 131.000
Destruction costs (3.3)	€ 58.000	€ 29.000
total	€ 4.970.000	€ 2.485.000

The Netherlands confirm that all measures mentioned in Table 8 for which we ask for co-financing are fundable according to current national rules.

Annex to the Veterinary Control Programme for Salmonella in Laying Hen Flocks presented for 2012 by the Netherlands

The control programme complies with the specific requirements laid down in Part D of Annex II to regulation (EC) No 2160/2003.
Measures are carried out in accordance with Commission Regulation (EC) No 517/2011 implementing legislation of Regulation (EC) No 2160/2003 in laying hens including requirements of testing (details on types of samples, sampling frequency, preparation of samples, laboratory, methods of analysis, reporting of results etc.).

PROPOSED
VETERINARY CONTROL PROGRAMME
FOR

SALMONELLA IN TURKEYS
PRESENTED FOR 2012*

BY
THE NETHERLANDS

*In accordance with Regulation 2160/2003 and (EG) Nr. 584/2008

2011-421-N0001a
27-04-2011

INDEX

1. GENERAL REQUIREMENTS FOR THE PROGRAMME

A.a: Aim of the program

The aim of the programme is to monitor and reduce the prevalence of Salmonella Enteritidis (Se) and Salmonella Typhimurium (St) in flocks of fattening turkeys.

The target for the reduction of Salmonella Enteritidis (Se) and Salmonella Typhimurium (St) in fattening turkeys is a reduction of the maximum percentage fattening turkeys remaining positive to 1%, or less by 31 December 2012.

A.b: Animal population and phases of production

Animal population:
- Turkeys

Phase of production:
- Birds leaving for slaughter

A.c: Evidence that programme complies requirements laid down in Parts C, D and E of Annex II regulation No 2160 / 2003

Annex II, part C and D are not applicable for turkeys. There are no breeding and rearing flocks in the Netherlands. Annex II, part E is applicable to turkeys but is specifically directed to the trade of meat for human consumption. In the Netherlands there are no slaughterhouses for turkeys, all turkeys from the Netherlands are slaughtered in Germany. Therefore, the Dutch program focuses on live production of fattening turkeys only. Hence, Annex II, part E is not applicable for the Dutch program.

A.d.1: General

A.d.1.1: Short summary referring to the occurrence of Salmonellosis

In 2010 the results with regard to the occurrence of Salmonella were:

Fattening turkeys:
- 6 flocks infected with Salmonella spp out of 196 flocks (3,1%)
- 0 flocks infected with Salmonella Enteriditis out of 196 flocks (0,0%)
- 0 flocks infected with Salmonella Typhimurium out of 196 flocks (0,0%)

A.d.1.2: Structure and organization of the relevant competent authorities

In the Netherlands the Product for Poultry and Eggs executes the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation (EL&I) is coordinating this implementation. In Figure 1, all organizations involved are mentioned, including their relation to the programme.

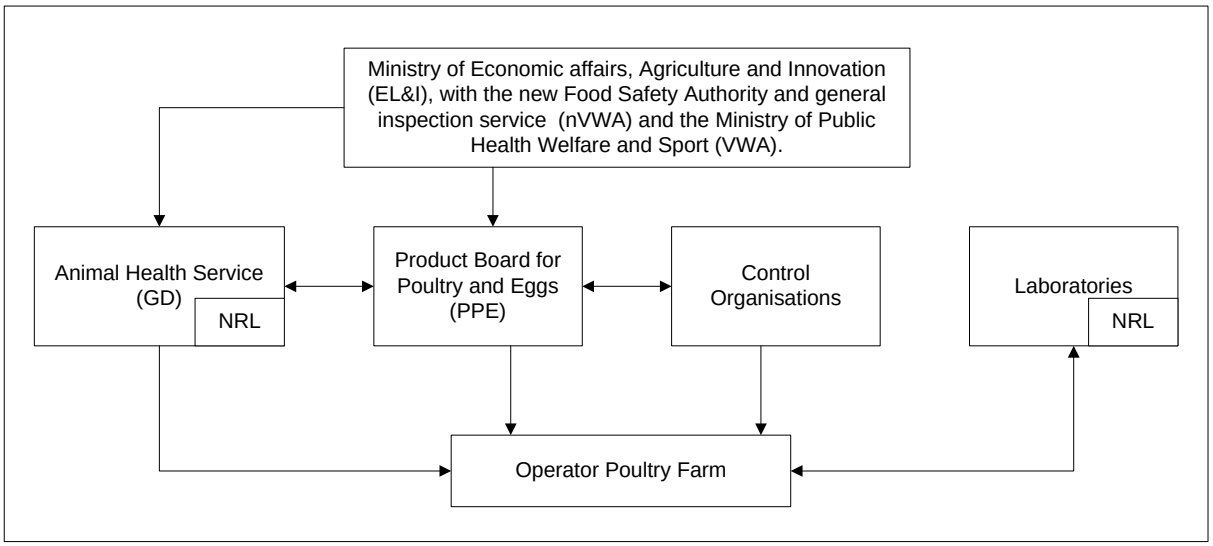

Figure 1: Organizational scheme of the organizations involved in the veterinary control programme for Salmonella in poultry.

1. PPE

The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulation by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)

Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA

The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations

The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories

In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the *Salmonella* status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of *Salmonella*). All the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute of Public Health and Environment)
The RIVM is the Dutch national reference laboratory for *Salmonella*. The RIVM is part of the Ministry of VWS, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

A.d.1.3: Approved laboratories

The following laboratories are acknowledged by the PPE to perform analysis to determine the Salmonella status of samples taken concerning the Action plans:
1. Alcontrol Food & Water
2. A S Bioconsult
3. Bacteriologisch Adviesbureau
4. Bilacon GmbH
5. C.C.L. – Nutricontrol
6. Demetris DierGezondheid BV
7. DGZ Vlaanderen – locatie Torhout
8. GD
9. Heijs Groep Pluimveeverwerkende Industrie (Lab Heijs/ de Vries)
10. K.B.B.L. Wijhe
11. Lavetan NV
12. Lebensmittel- und veterinärlabor GmbH
13. Lohmann Tierzucht
14. Masterlab BV
15. Plukon Poultry BV
16. ROBA Laboratorium
17. RIVM
18. SGS Nederland BV
19. Silliker Netherlands BV
20. Storteboom Fresh BV Laboratorium
21. Tierärztliche Gemeinschaftspraxis WEK
22. Veterinair Centrum Someren

A.d.1.4: Methods in examination

The tests that are performed in the National Plan: PVE branch method for Salmonella analysis: this method includes the use of Modified Semi solid Rapport Vassiliadis agar (MSRV) as a selective enrichment medium. The semi solid medium should be incubated at 41.5 °C +/- 1 °C for 48 h. Alternative methods for detection will be permitted (for example Salmonella analysis by PCR), when the methods are approved as valid by the CRL.
In case of a positive finding, serotyping is performed according to the Kaufmann-White scheme.

A.d.1.5: Official controls at feed and flock level

Official controls
GD carries out official sampling at 10% of the farms once a year. At these 10% of the farms all flocks will be sampled. This 10% will include all flocks that were tested positive for Se or St by sampling of the food business operator. When this group does not reach 10% of the total amount of fattening turkey farms in the Netherlands a random selection will take place to fill up the group until 10%. Official sampling replaces monitoring by the operator.

A.d.1.6: Measures taken by the competent authorities

Measures to be taken in case of positive findings in fattening turkeys are:
a) removal of litter when infected turkeys have left the house;
b) cleaning and disinfection of turkey house when empty;
c) swab test, executed by a PPE acknowledged company, of the house after cleaning and disinfection;
d) when swab test is negative, new flock can be placed. When the swab test is positive, new flock can be placed but after this flock has left the turkey house, the cleaning and disinfection of the turkey house has to be executed by a professional cleaning and disinfection company.

A.d.1.7: National legislation relevant to the implementation of the programme

The implementation of the programme is laid down in the PPE Directive 'Verordening Hygiënevoorschriften Kalkoenhouderij (PPE) 2009'.

A.d.1.8: Financial assistance provided to food and feed business

In 2011 there is no financial assistance for fattening turkey flocks. For 2012 financial assistance from the EU is requested for compensation of the depreciation of meat derived from Se/St infected fattening turkey flocks. From 1st December 2011 new EU regulations prescribe that this meat may not be marketed as fresh poultry meat, but must receive heat treatment. This results in a decrease in value of the meat. Compensation for the loss of value is already possible in the cases of breeding (Gallus Gallus) or laying flocks to be culled and hatching and table eggs to be destroyed due to a Salmonella infection (e.g. Commission Decision No 2010/712). In our opinion financial assistance to compensate the loss of value due to compulsory heat treatment of meat of fattening turkey flocks infected with Se/St is completely in line with the above mentioned assistance for breeding (Gallus Gallus) and laying flocks. The value and level of compensation required for the poultry meat will be defined on a central level by the Dutch government institute for agricultural economics (LEI).

A.d.2: Food and feed businesses covered by the programme

A.d.2.1: Structure of the production of fattening turkeys

The Dutch turkey business is very small. There are no Dutch (rearing) grandparent flocks, parent flocks or slaughterhouses. All turkeys are slaughtered in Germany. Consequently the programme is applied for fattening turkey flocks. The program coveres all turkey farm businesses in the Netherlands.

The number of turkey operators in the Netherlands:
- 1 hatchery;
- 55 fattening turkey holdings.

The number of fattening flocks in the Netherlands in 2010 was 229

A.d.2.2: Structure of the production of feed

Regulations for the production of feed are laid down in the "Kaderwet Diervoeders" by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the "Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005" and the "Besluit PDV Salmonella in de diervoedersector 2005". For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

A.d.2.3: Relevant guidelines

Relevant guidelines for hygiene management at farms include measures to prevent introduction of pathogens by external sources such as other animals, feed, drinking water, people working at farms and during transport of animals to and from farms.

1. Hygiene management at farms:
    a. No pets, stock or (other) poultry are allowed in the poultry house
    b. If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measurements are required (like separate care)
    c. No wild birds can enter the poultry house
    d. Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measurements (including special clothing)
    e. Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    f. Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    g. Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    h. The poultry house, the poultry farm and its close environment are clean
    i. Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes
    j. The drive- and walking routes to the farm are paved and cleanable
    k. The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo's, every silo has a unique number
    l. Feed and litter is stored in such a way that it stays clean, dry and mould free
    m. Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

A.d.2.4: Routine veterinary supervision of farms

Every farm is inspected at least once a year by a qualified veterinarian on behalf of the competent authority to enforce national legislation (i.e. legislation based on EU Directive 90/593/EC). This visit is not considered as official sampling in the frame of the Salmonella control programme and official sampling is therefore executed in addition to the routine veterinary inspection.

A.d.2.5: Registration of farms

All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation 'Verordening productie van en handel in broedeieren en levend pluimvee (PPE)". All the information is stored in a central database called the "Koppel Informatiesysteem Pluimvee (KIP-system)". This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

A.d.2.6: Record-keeping at farms

Turkey farmers have to keep record of the following parameters:

- Number of animals
- Fallout ration
- Date of Salmonella sampling and result and serotype
- Starting date new flock

- Date of transfer of information concerning Salmonella status to the Product Board and to the buyer and the supplier of eggs or turkeys.

A.d.2.7: Documents to accompany animals when dispatched

Because all turkeys are slaughtered in Germany all the transports have to have an exportcertificate which is issued by the Food and Consumers Product Safety Authority (nVWA). The export certificate is based on the following EU documents:

- Directive 2009/158/EG; Directive 90/425/EEG; Directive 96/93
- Regulation 2160/2003; Regulation 1234/2007; Regulation 617/2008
- Decision 2006/147; Regulation 1/2005.

When animals are dispatched they are accompanied by a so-called 'P-formulier'. For dispatch to slaughterhouse a document called 'VKI – Voedsel Keten Informatie' is demanded. On this document information like Salmonella status of the flock and use of medicine is registered. Operators wishing to export more than 20 birds or hatching eggs to another EU member state (or certain third countries) must comply with EU Directive 90/539/EC and ensure that the consignment is accompanied by a completed and signed Intra-trade Animal Health Certificate (ITAHC) for poultry breeding and production. The ITAHC will also require the reference number of the operator's poultry health certificate.

The ITAHC will be amended to include the results of the last test for *Salmonella* as required in Commission Regulation (EC) 2160/2003 Article 9.1 prior to any dispatching of the live animals, or hatching eggs, from the food business of origin. The relevant health certificates provided for in Community legislation must list the date and result of testing. This certificate must be completed and signed by both the official veterinarian and the operator to confirm compliance with the relevant articles of EU Directive.

A.d.2.8: Other relevant measures to ensure traceability of animals

The TRACES system is managed by the Dutch new Food Safety Authority and General Inspection Service (nVWA). An export can only be approved in TRACES if the official veterinarian has given his approval.

ANNEX II – PART B

1. IDENTIFICATION OF THE PROGRAMME

Member state: The Netherlands

Disease: Infection of turkeys with zoonotic Salmonella spp

Species: Turkeys

Request of Community co-financing from: 2012 to 2013

Geographical Area: The Netherlands

Contact:
T.H. Mauritz-Schoone
Product Board for Poultry and Eggs, PPE
Phone: 0031(0)79 368 7539
Fax: 0031(0)79 363 4345
E-mail: mmauritz@pve.nl

Date sent to the commission: April 27th 2011

2. HISTORICAL DATA ON THE EPIDEMIOLOGICAL EVOLUTION OF ZOONOTIC SALMONELLOSIS

The Netherlands has a programme to control the prevalence of Salmonella in turkeys since 1999. The programme is called “Plan of Approach Salmonella in the turkey sector 1999”. The programme that was designed involved strict hygiene rules and the monitoring of Salmonella infections throughout the turkey production chain. The actions involved in the Plan are obligatory, pursuant to the legislation of the PPE. The programme is compulsory for all turkey operators in the Netherlands. The Dutch turkey business is very small. There are no Dutch (rearing) grandparent flocks, parent flocks or slaughterhouses. All turkeys are slaughtered in Germany. Consequently the programme is applied for fattening turkey flocks.
The number of turkey operators in the Netherlands:

- 1 hatchery;
- 55 fattening turkey holdings.

The programme has been effectively, which is shown in figure 1. The Salmonella spp. prevalence in fattening turkeys decreased from 2004 till 2007 to 3,7%. In 2010 the Salmonella spp. prevalence in fattening turkeys was 3,1%. In 2010 there have been no contaminations with Salmonella enteritidis of Salmonella typhimurium.

In the Baseline survey 2006-2007, which is performed by MSs and analysed by EFSA, the Netherlands had a Se / St-infection percentage, based on bacteriological results, of 1,5% in fattening turkeys. This percentage is the starting-point for this programme. At this moment the Netherlands are very close to the target mentioned in EG 584/2008 article 1, a:

The Community target, as referred to in Article 1 (a and b) of Regulation (EC) No 584/2008, for the reduction of Se and St in turkeys (‘Community target’) shall be:

a) a reduction of the maximum percentage of fattening turkey flocks remaining positive of Se and St to 1% or less by 31 December 2012

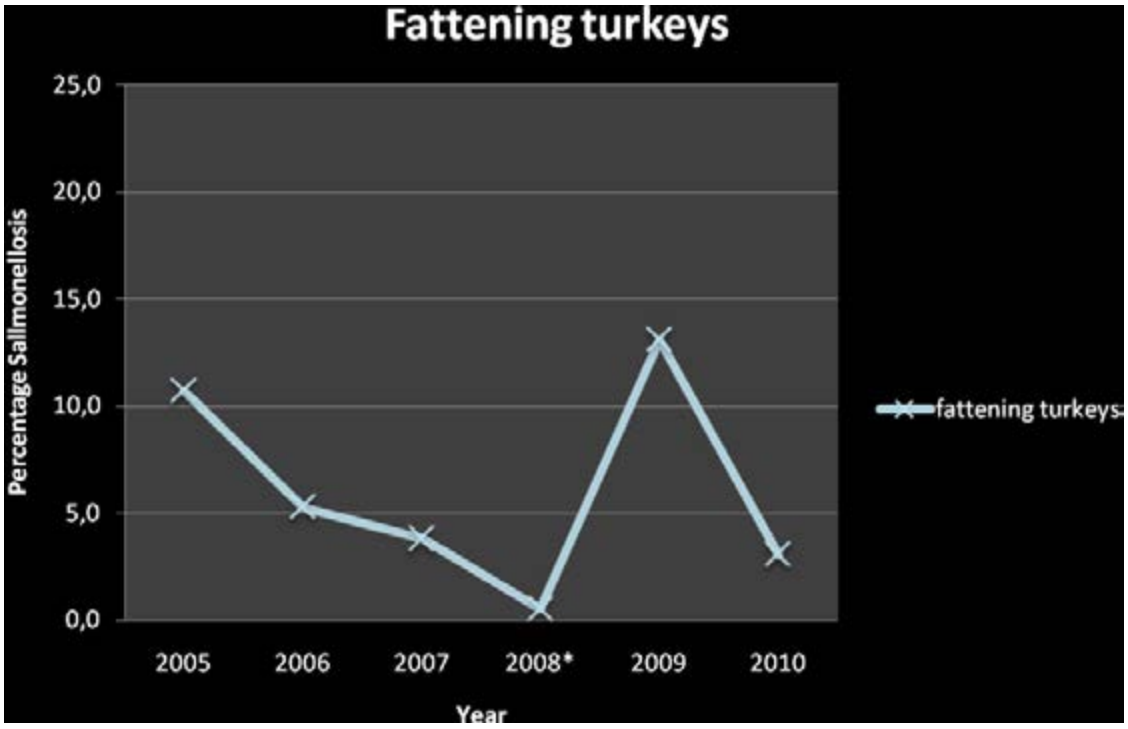

Figure 2: prevalence of Salmonella spp. in turkey production chain in the Netherlands from 2005-2010

3. DESCRIPTION OF THE SUBMITTED PROGRAMME

3.1 Target Veterinary Control Programme

The target for the reduction of Salmonella Enteritidis (Se) and Salmonella Typhimurium (St) in fattening turkeys is a reduction of the maximum percentage fattening turkeys remaining positive to 1%, or less by 31 December 2012.

3.2 Monitoring of the Veterinary Control Programme

A. Monitoring by the food business operator
The test frequency is laid down in the directives of the PPE. At the maximum of 21 days before slaughter, samples are taken at the holding. The operator is responsible for the monitoring. During monitoring at least two pair of boot / sock swabs are taken per turkey house. All compartments of the turkey house are equally represented in the samples. It is ensured that all sections in a turkey 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 are carefully removed so as not to dislodge adherent material. Boot swabs may be inverted to retain material. The boot swabs are transported in a bottle or plastic bag with a label.

Before putting on the boot / sock swabs, their surface is 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. The use of farm water containing antimicrobials or additional disinfectants is prohibited.

Samples will send by (express) mail or courier to a PPE acknowledged laboratory, within 24 hours after collection. If not sent within 24 hours, they will be stored. At the laboratory samples will be kept refrigerated until examination, which is carried out within 48 hours following receipt and within 96 hours of sampling. Samples are analyzed according to the MSRV-branchemethod, which is according to point 3.4 of the Annex of 584/2008 and is based on the latest version of Annex D, ISO 6579(2002). Each Salmonella positive sample has to be analyzed to a serotype.

When a turkey farmer feeds the turkeys with cereal grown on his own farm of bought from another farmer, the turkey farmers has to take a double sample from every batch of cereal. The farmer has to take at least 5 separate samples from different parts of one batch of cereal. The total of these samples has to be at least 500 grams. Of each sample the following features have to be registered:

- Date of sample
- Name of product
- Size of batch
- Origing (home grown, bought from other farmer)
- Place of sampling

When there is positive Salmonella finding at the turkey house of which the origin is unknown, the cereal sample has to be examined for Salmonella spp. The samples have to be sent to a laboratory that is acknowledged by the Product Board Animal Feed.

B. Official sampling
GD carries out official sampling at 10% of the farms once a year. At these 10% of the farms all flocks will be sampled. This 10% will include all flocks that were tested positive for Se or St by sampling of the food business operator. When this group does not reach 10% of the total amount of fattening turkey farms in the Netherlands a random selection will take place to fill up the group until 10%. Official sampling replaces monitoring by the operator.

3.3 Measures to be taken in case of Salmonella positive findings at the turkey house

Measures to be taken in case of positive findings in fattening turkeys are:
a) removal of litter when infected turkeys have left the house;
b) cleaning and disinfection of turkey house when empty;
c) swab test, executed by a by the PPE acknowledged company, of the house after cleaning and disinfection;
d) when swab test is negative, new flock can be placed. When the swab test is positive, new flock can be placed but after this flock has left the turkey house, the cleaning and disinfection of the turkey house has to be executed by a professional cleaning and disinfection company.

3.4 Monitoring in slaughterhouse

Not applicable because there are no slaughterhouses for turkeys in the Netherlands, all Dutch turkeys are slaughtered in Germany.

3.5 Measures to be taken in case of Salmonella positive findings at the slaughterhouse

Not applicable.

3.6 Other bio-security regulations

Each poultry farmer has to comply with the following bio-security measures, laid down in the directive “Verordening Hygiënevoorschriften Kalkoenhouderij (PPE) 2009”. All farmers are inspected once a year for compliance with these regulations.

The measurements (in short) are:
1. Hygiene management at farms:
    a. No pets, stock or (other) poultry are allowed in the poultry house
    b. If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measurements are required (like separate care)
    c. No wild birds can enter the poultry house
    d. Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measurements (including special clothing)
    e. Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    f. Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    g. Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    h. The poultry house, the poultry farm and its close environment are clean
    i. Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes
    j. The drive- and walking routes to the farm are paved and cleanable
    k. The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo’s, every silo has a unique number
    l. Feed and litter is stored in such a way that it stays clean, dry and mould free
    m. Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

4 MEASURES OF THE SUBMITTED PROGRAMME

4.1 Summary of measures under the programme

Duration of the programme:
There is a program running since 1999, which is slightly changed from 1st January 2010. Especially the part of culling Se or St positive breeding flocks and the official sampling is new and will start at 1st January 2010. But this is not applicable anymore because we have no breeding flocks in the Netherlands since 2010. The rest of the programme is ongoing, at least up to 31 December 2013.

First year:
- ❑ Control:
  - ❑ Testing
- ❑ Monitoring or surveillance
- ❑ Other measures:
  - ❑ Rodent control programme
  - ❑ Hygiene check
  - ❑ Bacteriological research water
  - ❑ Hygiene measurements

Last year:
- ❑ Control:
  - ❑ Testing
- ❑ Monitoring or surveillance
- ❑ Separate transport of positive fattening flocks to slaughterhouse
- ❑ Other measures:
  - ❑ Rodent control programme
  - ❑ Hygiene check
  - ❑ Bacteriological research water
  - ❑ Hygiene measurements

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

In the Netherlands the Product Board for Poultry and Eggs (PPE) executes the implementation of the programme. The Ministry of Economic Affairs, Agriculture and Innovation (EL&I) is coordinating this implementation. In Figure 3, all organizations involved are mentioned, including their relation to the programme.

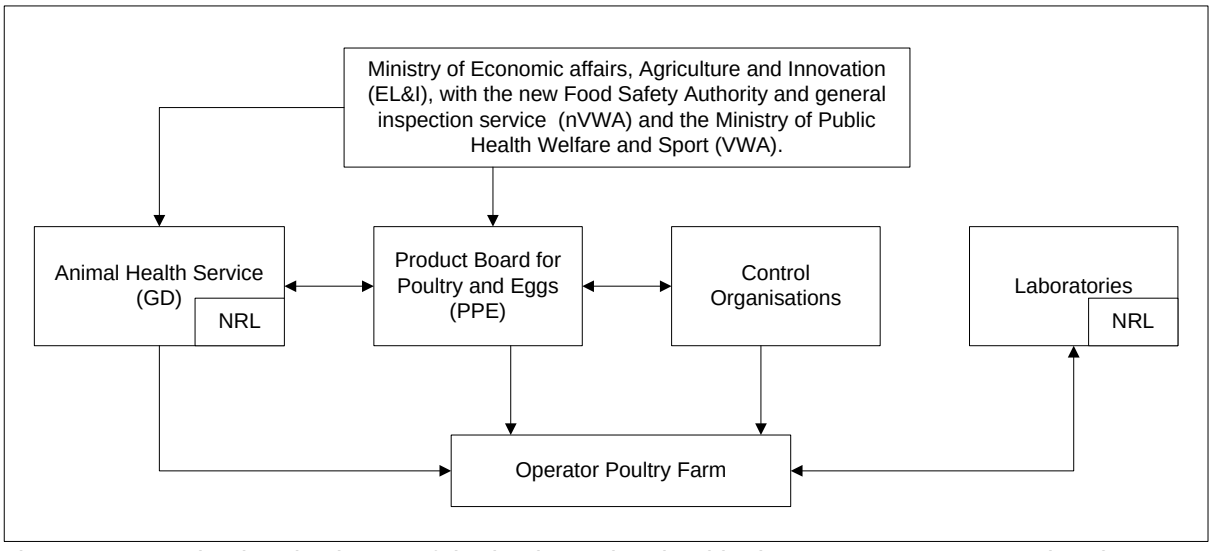

Figure 3: Organizational scheme of the institutes involved in the programme concerning the control of Salmonella in turkeys.

1. PPE
The Product Board for Poultry and Eggs (PPE) is a delegated authority. This is legally laid down in the following regulation by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's". The regulations concerning the Action Plan are formulated by PPE and acknowledged by the Ministry of EL&I. The implementation of the programme and evaluation of the results is carried out by PPE.

2. Animal Health Service (GD)
Concerning poultry, the main objective is to promote optimal health of poultry, particularly by preventing infectious diseases and the presence of microorganisms and residues that may be harmful to consumers. As a competent independent organization, GD occupies a central position in organized poultry health care. On the basis of (government) regulations or by government order, disease control programmes are realized. GD is acknowledged by the Ministry of EL&I to perform these tasks. Additionally, GD will perform official sampling within the Action Plan.

3. nVWA
The new Food Safety Authority and General Inspection Service (nVWA) checks if GD and other laboratories perform according to the work protocol that was agreed upon. The nVWA is also able to prosecute in specific cases when measures were not followed correctly (e.g. by laboratory or farmer).

4. Control organizations
The control organizations audit the procedures in the Action Plan and the sampling done by the operators. These control organizations must be independent and are acknowledged by PPE.

5. Laboratories
In total 22 (private) laboratories are acknowledged by the PPE to perform analysis to determine the *Salmonella* status of samples concerning the Action plans. This is legally laid down in the PPE directive “Besluit erkenningsvoorwaarden en werkwijzen laboratoria (PPE) 2009”. All test results obtained by these laboratories are reported to the PPE and collected in a central database. Every acknowledged laboratory has to participate in the concerning ring survey(s) (determination and serotyping of *Salmonella*). All the ring surveys are set up under auspices of the Dutch NRL (RIVM) every three months. The authorization of the laboratories is delegated by the Ministry of EL&I to the PPE. This is legally laid down in the following regulations by the Ministry of EL&I: "Besluit bescherming tegen bepaalde zoönosen en bestrijding van besmettelijke dierziekten" and "Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE's".

6. NRL (RIVM, National Institute of Public Health and Environment)
The RIVM is the Dutch national reference laboratory for *Salmonella*. The RIVM is part of the Ministry of VWS, and also undertakes commissions from other ministries such as the Ministry for EL&I. The RIVM organizes ring surveys among the (future) acknowledged laboratories, including GD, participating in the Dutch national programme for control of Salmonella in the poultry sector. Results of these ring surveys are reported to the PPE and measures will be taken if results are insufficient.

Structure of the production of feed
Regulations for the production of feed are laid down in the “Kaderwet Diervoeders” by the Ministry of EL&I. The Product board for Feed (PDV) is a delegated authority and publishes specific regulations on the production of feed. The most important regulations for the poultry sector are the “Verordening Monitoring Zoönosen en Zoönoseverwekkers Diervoedersector 2005” and the

“Besluit PDV Salmonella in de diervoedersector 2005”. For the latter one the monitoring results are presented in the Dutch annual zoonoses report.

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

Geographical limitations: The Netherlands.

4.4 Measures implemented under the programme

4.4.1 Measures and terms of legislation as regards the registration of the holding

All poultry farms and flocks (with more than 250 birds) are being registered by the PPE, in which every farm receives a unique number. When a flock is being transferred from one farm to another the PPE must be informed. This is laid down in the regulation ‘Verordening productie van en handel in broedeieren en levend pluimvee (PPE)”. All the information is stored in a central database called the “Koppel Informatiesysteem Pluimvee (KIP-system)”. This KIP-system is also the base for registration in accordance with the EU Regulation 852/2004.

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

Not applicable for poultry.

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

Each veterinarian has the obligation to notify Salmonella to the GD. This is specified in legislation of the Ministry of Economic Affairs, Agriculture and Innovation, “Regeling preventie, bestrijding en monitoring van besmettelijke dierziekten en zoönosen en TSE’s”. According to the food chain information obligation (EG 853/2005) the farmer has to notify the slaughterhouse about the result of Salmonella sampling, this is laid down in directives of the PPE.

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

The measures that have to be taken in case of a positive result are laid down in directives of the PPE. The Ministry of Economic Affairs, Agriculture and Innovation and Ministry of Public Health, Welfare and Sport have to approve these directives. All measures are stated in Chapter 3.
In the frame of the *Salmonella* control programme in **turkey flocks** of Meleagris gallopavo the provisions of paragraph 1 and 2 (frequency of sampling) 4 (results and reporting) of Annex of Commission Regulation (EC) No 584/2008 (**particularly provisions on exceptional cases**)are implemented.

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

Not applicable for turkeys.

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

When birds from infected flocks are slaughtered or destroyed, steps are taken to reduce the risk of spreading zoonoses as far as possible. Slaughtering will be carried out in accordance with Community legislation on food hygiene. Also hatching eggs are destructed. If not destined for human consumption, such products must be used or disposed of in accordance with Regulation (EC) No 1774/2002.

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

Vaccination against Salmonella is not used in turkeys in the Netherlands.

Laboratory tests and analyses
The tests that are performed in the Action Plan are:
PPE branch method for Salmonella analysis: this method includes the use of Modified Semi solid Rapport Vassiliadis agar (MSRV) as a selective enrichment medium. The semi solid medium should be incubated at 41.5 °C +/- 1 °C for 48 h. Alternative methods for detection will be permitted (for example Salmonella analysis by PCR), according to the provisions laid down in Commission Regulation 584/2008 (Annex point 3.4) In case of a positive finding, serotyping is performed according to the Kaufmann-White scheme.

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 normal methods for culture collection, which must ensure integrity of the strains for minimum of two years.

Antimicrobials
The use of antimicrobials is prohibited except for circumstances laid down in 1177/2006/EC, Article 2.

Salmonella vaccines
Vaccination against salmonella is not used in fattening turkeys in the Netherlands.

Financial contribution
The financial contribution for the farmer and the measures to be taken to receive the contribution will be specified in legislation of the PPE “Verordening Subsidieverlening terugdringing Salmonella in de pluimveesector”. At the moment there are no possibilities in this legislation for financial contribution for fattening turkey flocks. For 2012 PPE requests to receive financial assistance from the EU to compensate farmers for the depreciation of Se/St infected poultry meat, as described in the current programme.

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

In 2011 there is no financial assistance for fattening turkey flocks. For 2012 financial assistance from the EU is requested for compensation of the depreciation of meat derived from Se/St infected fattening turkey flocks. From 1st December 2011 new EU regulations prescribe that this meat may not be marketed as fresh poultry meat, but must receive heat treatment. This results in a decrease in value of the meat. Compensation for the loss of value is already possible in the cases of breeding (Gallus Gallus) or laying flocks to be culled and hatching and table eggs to be destroyed due to a Salmonella infection (e.g. Commission Decision No 2010/712). In our opinion financial assistance to compensate the loss of value due to compulsory heat treatment of meat of fattening turkey flocks infected with Se/St is completely in line with the above mentioned assistance for breeding (Gallus Gallus) and laying flocks. The value and level of compensation required for the poultry meat will be defined on a central level by the Dutch government institute for agricultural economics (LEI).

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

Besides the control programme for Salmonella, each flock will be checked once by a veterinarian, in accordance to the GVP-code (Good Veterinarian Practice). This is a Dutch quality code for veterinarians and ensures that the veterinarian has knowledge of poultry (including turkeys). Each poultry farmer has to comply with the following bio-security measures, laid down in the directive “Verordening Hygiënevoorschriften Kalkoenhouderij (PPE) 2009”. All farmers are inspected once a year for compliance with these regulations.

1. Hygiene management at farms:

    c. No pets, stock or (other) poultry are allowed in the poultry house
    d. If pets, stock or (other) poultry are present on the location of the poultry farm special hygiene measurements are required (like separate care)
    e. No wild birds can enter the poultry house
    f. Visitors are only allowed to enter the poultry house when this is necessary and under strict hygiene measurements (including special clothing)
    g. Every farm has a rodent control program or charters an acknowledged rodent control company at least every 2 months
    h. Once a year bacteriological research, and in case of a natural source of water also chemical research, of drinking water for poultry is conducted
    i. Every farm has a clear boundary, the poultry houses are locked and it is visible for visitors where they must announce themselves
    j. The poultry house, the poultry farm and its close environment are clean
    k. Before entering the poultry house a hygiene barrier needs to be crossed, including changing in special clothing and shoes The drive- and walking routes to the farm are paved and cleanable
    l. The feed silo is placed on a paved underground, is easy to clean and refillable from outside the poultry house. When there are more silo's, every silo has a unique number
    m. Feed and litter is stored in such a way that it stays clean, dry and mould free
    n. Every poultry house has a hand-washing facility

2. Cleaning and disinfection;
    a. After removing the birds the litter is removed and the poultry house is cleaned and disinfected
    b. Once a year a hygiene check in the cleaned and disinfected empty poultry house is done by a by PPE acknowledged company

Every holding is obligated to inform the slaughterhouse where the fattening turkeys are transferred, about the Salmonella status. This is laid down in the directive "Verordening Hygiënevoorschriften Kalkoenhouderij (PPE) 2009".

Because all turkeys are slaughtered in Germany all the Dutch turkey holdings take part in the German quality system Q&S. The Product Board (PPE) is Bündler for the Dutch turkey holdings and coordinates the control activities and supervises the compliance of the Dutch Q&S participants.

5 GENERAL DESCRIPTION OF THE COSTS AND BENEFITS

5.1 Human salmonellosis

The incidence of human salmonellosis health, is outlined in the graph below:

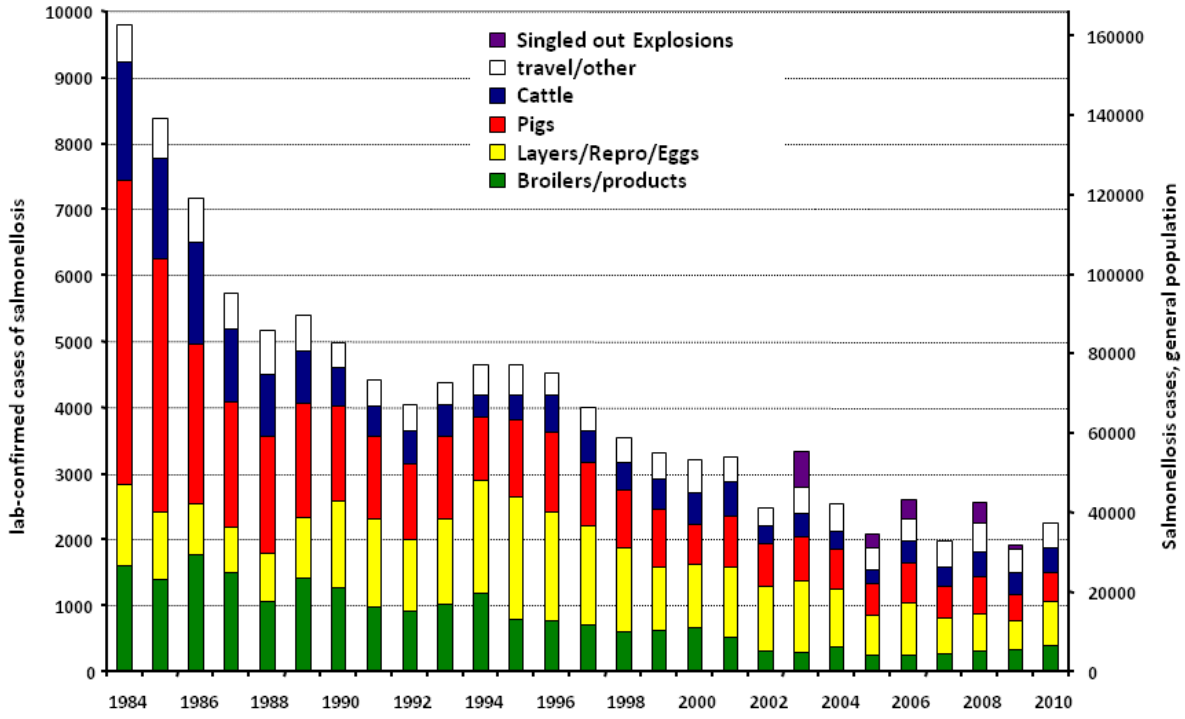

Figure 4: Occurrence of human cases of Salmonellosis in the Netherlands, with Salmonellosis caused by eggs depicted in yellow and Salmonellosis caused by poultry meat in green.

Detailed cost benefits data are not available.

6 DATA ON THE EPIDEMIOLOGICAL EVOLUTION DURING THE LAST FIVE YEARS

6.1 Evolution of the disease

6.1.2 Data on evolution of zoonotic salmonellosis

Year: 2005 **Situation on date:** December 2005
Animal species: turkey **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive[(e)] 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Rearing breeding turkey	4	20.260	4	20.260	4	0	0	0	0	0	0	0	0	0	0	0
	Breeding turkey	3	14.948	3	14.948	3	0	0	0	0	0	0	0	0	0	0	0
	Fattening turkey	252	2,6 million	252	2,6 million	252	0	0	27	0	0	0	0	0	0	0	0
Total		259	2,6 million	259	2,6 million	259	0	0	27	0	0	0	0	0	0	0	0

Year: 2006 **Situation on date:** December 2006
Animal species: turkey **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive[(e)] 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Rearing breeding turkey	4	17.791	4	17.791	4	0	0	0	0	0	0	0	0	0	0	0

	Breeding turkey	2	9.736	2	9.736	2	0	0	0	0	0	0	0	0	0	0	0
	Fattening turkey	227	2,9 million	227	2,9 million	227	0	0	12	0	0	0	0	0	0	0	0
Total		231	2,9 million	231	2,9 million	231	0	0	12	0	0	0	0	0	0	0	0

Year: 2007 **Situation on date:** December 2007
Animal species: turkey **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive[(e)] 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Rearing breeding turkey	3	15.466	3	15.466	3	0	0	0	0	0	0	0	0	0	0	0
	Breeding turkey	2	9.947	2	9.947	2	0	0	0	0	0	0	0	0	0	0	0
	Fattening turkey	210	2,8 million	210	2,8 million	210	0	0	8	0	0	0	0	0	0	0	0
Total		215	2,8 million	215	2,8 million	215	0	0	8	0	0	0	0	0	0	0	0

Year: 2008 **Situation on date**: December 2008
Animal species: turkey **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive[(e)] 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Rearing breeding turkey	4	20.352	4	20.352	4	0	0	0	0	0	0	0	0	0	0	0

	Breeding turkey	4	18.245	4	18.245	4	0	0	0	0	0	0	0	0	0	0	0
	Fattening turkey	197	2,8 million	197	2,8 million	197	0	0	1	0	0	0	0	0	0	0	0
Total		205	2,8 million	205	2,8 million	205	0	0	1	0	0	0	0	0	0	0	0

Year: 2009 **Situation on date**: December 2009
Animal species: turkey **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[(d)]	Number of positive[(e)] 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Rearing breeding turkey	3	10.224	3	10.224	3	0	0	0	0	0	0	0	0	0	0	0
	Breeding turkey	2	9.520	2	9.520	2	0	0	0	0	0	0	0	0	0	0	0
	Fattening turkey	191	2,6 million	191	2,6 million	191	0	0	25	0	0	0	0	0	0	0	0
Total		196	2,6 million	196	2,6 million	196	0	0	25	0	0	0	0	0	0	0	0

Year: 2010 **Situation on date:** December 2010
Animal species: turkey **Disease/infection[(a)]:** Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[b]	Total number of flocks[c]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Number of flocks checked[d]	Number of positive[e] 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)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Rearing breeding turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Breeding turkey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Fattening turkey	196		196		196	0	0	6	0	0	0	0	0	0	0	0
Total		196		196		196	0	0	6	0	0	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-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.

6.2 Stratified data on surveillance and laboratory tests

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

Year: 2009 **Animal species [a]:** turkey **Category[b]:** fattening flocks

Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	449	25	N/A	N/A
Total	N/A	N/A	449	25	N/A	N/A

Year: 2010 **Animal species [a]:** turkey **Category[b]:** fattening flocks
Description of the used serological tests: N/A

Description of the used microbiological or virological tests: MSRV method in faeces

Description of the other used tests: N/A

Region[c]	Serological tests		Microbiological or virological tests		Other tests	
	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]	Number of samples tested[d]	Number of positive samples[e]
Netherlands	N/A	N/A	415	6	N/A	N/A
Total	N/A	N/A	415	6	N/A	N/A

(a) Animal species if necessary.
(b) Category/further specifications such as breeders, laying hens, broilers ,breeding turkeys, broiler turkeys, breeding pigs, slaughter pigs, etc, when appropriate.
(c) Region as defined in the approved control and eradication programme of the Member State.
(d) Number of samples tested.
(e) Number of positive samples.

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

Year: 2005 **Animal species[a]::** turkey (breeding and fattening flocks)

Region[b]	Number of herds infected[c]	Number of animals infected
Netherlands	19 (all serotypes)	NA
Total	19 (all serotypes)	NA

Year: 2006 **Animal species[(a)]::** turkey (breeding and fattening flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	12 (all serotypes)	NA
Total	12 (all serotypes)	NA

Year: 2007 **Animal species[(a)]::** turkey (breeding and fattening flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	8 (all serotypes)	NA
Total	8 (all serotypes)	NA

Year: 2008 **Animal species[(a)]::** turkey (breeding and fattening flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	1 (all serotypes)	NA
Total	1 (all serotypes)	NA

Year: 2009 **Animal species[(a)]::** turkey (breeding and fattening flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	25 (all serotypes)	NA
Total	25 (all serotypes)	NA

Year: 2010 **Animal species[(a)]::** turkey (fattening flocks)

Region[(b)]	Number of herds infected[(c)]	Number of animals infected
Netherlands	6 (all serotypes)	NA
Total	6 (all serotypes)	NA

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

6.4 Data on vaccination programmes

Not applicable, there is no vaccination programme for turkeys in the Netherlands.

7 TARGETS

7.1 Targets related to testing

7.1.1 Targets on diagnostic tests

Year: 2012 **Animal species: [(a)]:** turkey (fattening flocks)

Region[(b)]	Type of the test[(c)]	Target population [(d)]	Type of sample[(e)]	Objective [(f)]	Number of planned tests
Netherlands	MSRV	Fattening flocks	faeces	monitoring	400
Total					400

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

7.1.2 Targets on testing of flocks[1]

Year: 2012 Situation on date: December 2010

Animal species: Turkey infection[(a)]: Salmonella Enteritidis (a1) and Typhimurium (a2)

Region (a1)	Type of flock[(b)]	Total number of flocks[(c)]	Total number of animals	Total number of flocks under the programme	Total number of animals under the programme	Expected number of flocks to be checked[(d)]	Number of flocks[(e)] expected to be positive [(a)]			Number of flocks expected to be depopulated[(a)]		Total number of animals expected to be slaughtered or destroyed [(a)]		Expected quantity of eggs to be destroyed (number or kg) [(a)]		Expected quantity of eggs channelled to egg products (number or kg) [(a)]	
							(a1)	(a2)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)	(a4)	(a3)
Netherlands	Fattening Flocks	196	2,6 million	196	2,6 million	196	0	5	20	0	0	0	0	0	0	0	0
Total		196	2,6 million	196	2,6 million	196	0	5	20	0	0	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-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.

[1] Specify types of flocks if appropriate (breeders, layers, broilers).

(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.

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

7.2.1 Targets on vaccination

Not applicable

8. DETAILED ANALYSIS OF THE COST OF THE PROGRAMME (ONE TABLE PER YEAR OF IMPLEMENTATION)

Costs related to	*Specification*	*Number of units*	*Unitary cost in EUR*	*Total amount in EUR*	*Community funding*

					requested (yes/no)
1. Testing					
1.1. Cost of the analysis	***Test:*** **Number of bacteriological tests (cultivation) planned to be carried out in the framework of official sampling** **Fattening flocks (10%)**	**19**	**18,39**	**351**	**No**
1.2. Cost of sampling		**NA**	**NA**	**NA**	**No**
1.3. Other costs		**NA**	**NA**	**NA**	**No**

2. Vaccination or treatment of animal products					
2.1. Purchase of vaccine/treatment of animal products					
	Number of purchase of vaccine doses planned if a vaccination policy is part of the programme as set out explicitly under point 4 of Annex II	**NA**	**NA**	**NA**	**No**
2.2. Distribution costs		**NA**	**NA**	**NA**	**No**
2.3. Administering costs		**NA**	**NA**	**NA**	**No**
2.4. Control costs		**NA**	**NA**	**NA**	**No**
3. Slaughter and destruction					
3.1. Compensation of animals		**NA**	**NA**	**NA**	**No**
3.2. Transport costs		**NA**	**NA**	**NA**	**No**

3.3. Destruction costs		**NA**	**NA**	**NA**	**No**
3.4. Loss in case of slaughtering		**NA**	**NA**	**NA**	**No**
3.5 Costs from treatment of animal products (milk, eggs, hatching eggs, etc)		**66.500**	**3,40**	**226.000**	**yes**
4. Cleaning and disinfection	***Fattening flocks after infection***	**25**	**96,40**	**2.410**	**No**
5. Salaries (staff contracted for the programme only)		**NA**	**NA**	**NA**	**No**
6. Consumables and specific equipment		**NA**	**NA**	**NA**	**No**
8 Other costs					
Fattening flocks	***Hygiene Check***	**196**	**115**	**21.965**	**No**
	Water analysis	**196**	**40**	**7640**	**No**
	Cleaning and desinfection	**2.6 million**	**0.033**	**85.800**	**No**
	Salmonella analysis after cleaning and desinfection	**25**	**18.39**	**460**	**No**
TOTAL				**344.726**	

TOTAL COSTS REQUESTED FOR COMMUNITY FUNDING IN 2012 FOR TURKEYS

	Total costs	**Request community funding (= 50%)**
Costs from treatment of animal products (3.5)	€ 226.000	€ 113.000

The Netherlands confirm that all measures mentioned in Table 8 for which we ask for co-financing are fundable according to current national rules.

Annex to the Veterinary Control Programme for Salmonella in Turkeys presented for 2012 by the Netherlands

The control programme complies with the specific requirements laid down in Part C and E of Annex II to regulation (EC) No 2160/2003.
Measures are carried out in accordance with Commission Regulation (EC) No 213/2009 implementing legislation of Regulation (EC) No 2160/2003 in turkeys including requirements of testing (details on types of samples, sampling frequency, preparation of samples, laboratory, methods of analysis, reporting of results etc.).