

# The Danish National Salmonella Control Programme for the Production of Table Eggs and Broilers

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## Short summary

**Status on the findings of Salmonella in the Danish poultry production in 2008 are in all sectors below 1 % of all positive flocks, compared to all flocks being tested**

The National Salmonella Control Programme was launched in December 1996, and the first samples were solicited in the spring of 1997. The National Salmonella Control Programme was designed to be a 'top-down' control effort based on an elimination strategy, whereby the infected flocks were eradicated by means of compulsory destruction or slaughter. The National Salmonella Control Programme was revised throughout the process. The funding for the National Salmonella Control Programme expired on 31 December 2002, after which the poultry sector took over the administrative and financial responsibility, while salmonella control and prevention will continue to be under public surveillance.

The National Salmonella Control Programme comprises all salmonella serotypes in all links of the production chain, in the breeding and table egg sectors (including farm-gate sellers). The sample-taking programme includes serological and bacteriological analyses. All serotypes arouse suspicion, after which the regional veterinary and food control authority takes suspect samples, though suspect samples are not taken from broiler flocks, however. If salmonella is found in these samples, the flock is declared infected and forced to comply with various restrictions. In January 2008 the control program was revised once again. For parent and layer flock detection of the five types of Salmonella S. Typhimurium, S. Enteritidis, S. Infantis, S. Virchow and S. Hadar now causes that the flock is declared infected without suspect samples. Findings of all Salmonella serotypes in broiler flocks will result in heat treatment- or destruction of the flocks.

The overall aim of the programmes is to minimize human exposure to Salmonella spp. from live animals and meat products, and to secure a continuous reduction of incidences of Salmonella species. The strategy is to detect, prevent and control Salmonella in primary production before any threat to human health arises or further spread occurs.

The results in both sectors have been good: the percentage of positive broiler-production flocks at *ante mortem* (AM) inspection has fallen from 12.9 % in 1997 to below 1 % in 2008. Since the launch of the National Salmonella Control Programme, the percentage of flocks infected with salmonella in the breeding and parent flock segments has hovered around 1.0 – 2.0 %, and as the detection of infection has resulted in flock eradication, none of these flocks have spread Salmonella down through the production pyramid. The percentage of infected flocks in the table egg sector (both rearing and layers) has declined from 13.4% in 1998 to below 1 % in 2008.

In October 2007 the Danish authorities forwarded an application to the EU for obtaining special guarantees as granted to Sweden and Finland. The result of the application is still unknown, but it is still in process.

# The Danish National Salmonella Control Programme for the Production of Table Eggs and Broilers

## Total report

### Summary

The National Salmonella Control Programme for expanded control of Salmonella in the broiler and table egg production is part of the general objective of the Danish authorities to improve the quality of Danish foodstuffs, including their microbiological quality.

The National Salmonella Control Programme was launched in December 1996, and the first samples were collected in the spring of 1997. An allocation of DKK 188.1 million was earmarked for the National Salmonella Control Programme that was planned to run for three years. The poultry industry contributed DKK 30 million of the DKK 188.1 million. DKK 62 million were still left in 1999, and the National Salmonella Control Programme was extended by another three years. The National Salmonella Control Programme was designed to be 'top-down' control based on an elimination strategy, whereby the infected flocks were eradicated by means of compulsory destruction or slaughter. The National Salmonella Control Programme was revised throughout the process. The funding for the National Salmonella Control Programme expired on 31 December 2002, after which the poultry sector took over the administrative and financial responsibility, while salmonella control and prevention continued to be under public surveillance. This means that the Danish Veterinary and Food Administration retained control of the National Salmonella Control Programme in relation to the industry and the regional veterinary and food control authorities, just as the public sector sets the goals of the continued efforts. For instance, the regional veterinary and food control authorities are responsible for the practical aspects of taking suspect samples, public inspection and sanctioning of any deviations from the National Salmonella Control Programme.

The overall aim of the programmes has been to minimize human exposure to *Salmonella* spp. from live animals and meat products, and to continue the reduction of incidences of *Salmonella* species. The strategy has been to detect, prevent and control *Salmonella* in primary production before any threat to human health arises or further spread occurs.

The National Salmonella Control Programme comprises all *Salmonella* serotypes in all links of the production chain, in the breeding and table egg sectors (including farm-gate sellers). The sample-taking programme includes serological and bacteriological analyses for obtaining maximum certainty that infected flocks are detected as early as possible. All serotypes arouse suspicion, after which the regional veterinary and food control authority takes suspect samples, though suspect samples are not taken from broiler flocks, however. If *Salmonella* is found in these samples, the flock is declared infected and forced to comply with various restrictions.

After the expiry of the National Salmonella Control Programme on 31 December 2002, it was decided that in future, compensation would only be paid to parent flocks that are declared infected with specific types of *Salmonella*. These flocks will be destroyed and the eggs will either be destroyed or sent to heat treatment. Parent flocks infected with other serotypes will be placed under public supervision and is not allowed to continue normal production, as the eggs must be sent to heat treatment. After the flock has been removed, cleaning and disinfection is compulsory in every situation (regardless of the *Salmonella* status). The cleaning and disinfection procedures have to be approved by the regional veterinary and food control authority. Regardless of serotype, the infection of pullet rearing flocks for table egg production will cause the flock to be put under supervision without compulsory destruction or slaughter; they will not be allowed to continue table egg production, to be sold or similar. Infected table egg flocks will be allowed to produce eggs, under the supervision of the regional veterinary and control authority, until they are slaughtered. However, all eggs must be sent to heat treatment from the date of suspected infection.

In January 2008, the control program was revised once again. The detection of the five types of *Salmonella* S. Typhimurium, S. Enteritidis, S. Infantis, S. Virchow and S. Hadar in parent and layer flocks now causes the flock to be declared infected without suspect samples. Findings of any *Salmonella* serotype in broiler flocks result in heat treatment or the destruction of the flock.

DKK 110 million of the DKK 188.1 million was spent on indemnification for destroyed flocks, consequential loss, etc. This does not include the funding provided by the industry.

The Danish Salmonella Control Programme does not include vaccination as a means of preventing or combating Salmonella because the Danish strategy is to eliminate Salmonella completely, and for this purpose vaccination is not effective. As serological surveillance is part of the control programme, vaccinated animals with positive serological reactions would jeopardise the effectiveness of the testing. Therefore, there are no Salmonella vaccines for poultry with a marketing license in Denmark.

In October 2007, Denmark forwarded an application to the EU for obtaining special guarantees as granted to Sweden and Finland in accordance with article 8 in Regulation (EC) No 853/2004 of the European Parliament and of the council of 29 April 2004 laying down specific hygiene rules for food of animal origin as regards meat from the species Gallus Gallus. In accordance with article 8, 3b in Regulation 853/2004 any Member State or any region of a Member State that has a control programme recognised as equivalent to that approved for Sweden and Finland in respect of the food of animal origin concerned can obtain the same special guarantees as Sweden and Finland. Along with the application for obtaining special guarantees, the control programme in Denmark was tightening several times, most recently in January 2009. The result of the application is still unknown.

## **Goals of the National Salmonella Control Programme**

The overall aim of the programmes have been to minimize human exposure to Salmonella spp. from live animals and meat products, the goal is to continue the reduction of the incidence of Salmonella species. The strategy has been to detect, prevent and control salmonella in primary production before any threat to human health arises or further spread occurs.

### **Original Primary Goals (1996-2002):**

- to reduce the level of infected table egg flocks to less than 5%.  
Subsidiary goal: To reduce the occurrence of Salmonella in flocks by one third every year.
- To reduce the percentage of infected broiler flocks to less than 5%.  
Subsidiary goal: To reduce the occurrence of salmonella in flocks by one third every year.
- To reduce the occurrence of human salmonellosis related to Danish-produced poultry products significantly.

### **Additional Goals (1998-2002):**

- To reduce the percentage of broiler flocks infected with *S. Typhimurium* to less than 1%.
- To reduce the percentage of broiler flocks infected with *S. Enteritidis* to less than 1%.
- to reduce the percentage of broiler flocks infected with exotic strains of Salmonella to less than 2%.

### **Extensive Goals (2008 - ):**

- A control programme recognised as equivalent to that approved for Sweden and Finland the food of animal origin concerned can obtain the same special guarantees as Sweden and Finland.

## **Background**

The incidence of human salmonellosis rose in Denmark during the 1990s, which attracted political attention to the problem. The Minister of Agriculture and Fisheries appointed a task group in 1994 to evaluate whether any precautionary measures were necessary to reduce human illness. The task group recommended that all links in the production chain should be tightened and that the Salmonella level should be reduced to less than 5% as quickly as possible.

In the late 1980s, a voluntary control programme, aimed at Danish broilers, was established between the Danish Veterinary Laboratory, the Danish Veterinary Services, and the poultry industry. As a result, broilers have been routinely inspected since 1989 through bacteriological *ante mortem* (AM) analysis roughly three weeks before slaughter. The public programme for the AM inspection of all broiler flocks was implemented in 1992. This was followed in 1992 by a voluntary control programme for the Danish table egg sector. At the time, the voluntary control programme involved the testing of table egg layer flocks in conjunction with placement, as well as the testing of day-old parent chicks imported to Denmark. Danish table egg hatcheries contracted agreements with import enterprises, which stipulated that the importer had to pay the costs and deliver a replacement flock if salmonella bacteria or salmonella antibodies were detected. This voluntary model has also continued after 1996, whereby day-old parent chicks in the broiler and table egg sectors are required to be salmonella-free at the time of purchase. This is implemented through contractual

demands to the suppliers, various tests of the chicks on arrival to Denmark and by means of structural and work-flow requirements made on the non-Danish enterprises that supply these birds. Industrial approval of the enterprises is temporary and is to be followed up by additional inspection.

On 1 January 1994, Denmark became the first EU Member State to implement Council Directive 92/117/EEC, also known as the 'Zoonosis Directive'. This directive prescribes the routine bacteriological testing of all parent flocks for broiler and table egg production for *Salmonella Enteritidis* and *S. Typhimurium*, as well as the subsequent destruction of positive flocks. The EU reimburses 50% of member state expenditures for the destruction of flocks and hatching eggs.

Prompted by the steep rise in incidences of human salmonellosis, the National Salmonella Control Programme was approved by the Finance Committee of the Danish parliament by Act No. 325 of 29 May 1996. An overall budget of DKK 188.1 million was allocated for the implementation of the National Salmonella Control Programme over a three-year period. The purpose of the State's commitment was to assist the industry in solving a serious human health problem caused by poultry meat and table eggs contaminated with *Salmonella*.

The National Salmonella Control Programme was implemented on 9 December 1996. The National Salmonella Control Programme expanded the monitoring to include all serotypes (except for *Salmonella Pullorum* and *S. Gallinarum*, as these are covered by special rules) in the parent flock segment, and at the time, a 'zero-tolerance strategy' was in effect for all production links that included the killing (destruction or slaughter) of flocks in return for full compensation, as well as the subsequent cleaning and disinfection of houses. Table egg and pullet-rearing flocks infected with *S. Enteritidis* and *S. Typhimurium* were similarly eradicated.

A steering committee and two technical task groups, for the table egg and broiler sectors respectively, were appointed in 1996. A project manual was also compiled (1996) to serve as a scenario for the implementation. The first samples were collected in March 1997.

Already during the first year of the National Salmonella Control Programme, it became apparent that *Salmonella* was more widespread in the table egg sector than assumed at the beginning. The destruction of pullet rearing flocks and table egg layer flocks was discontinued on 10 September 1997 owing to the fact that an acute shortage of Danish eggs would arise if the eradication strategy continued. Moreover, it was likely that adhering to the control strategy would soon drain the indemnification funding. As a result, it was decided to focus exclusively on the serological monitoring of the pullet rearing and table egg productions for a while, and to chart the salmonella situation in these two areas.

This made it necessary to amend the National Salmonella Control Programme so that efforts could concentrate on ensuring salmonella-free hatching egg production, i.e., a 'top-down' model. An amended National Salmonella Control Programme was available in March 1998, which included the monitoring of all serotypes (except *Salmonella Pullorum* and *S. Gallinarum*), and continued the eradication of infected rearing flocks and intensified the analyses of table egg flocks. From June 1998, table eggs for the retail sector came exclusively from flocks that had been analysed for *Salmonella*. After the amendment of the National Salmonella Control Programme, infected table egg flocks were put under supervision which included the compulsory heat-treatment of eggs. The programme was tightened additionally in late 1999, by requiring eggs to be sent to heat treatment already from the date of the suspected infection.

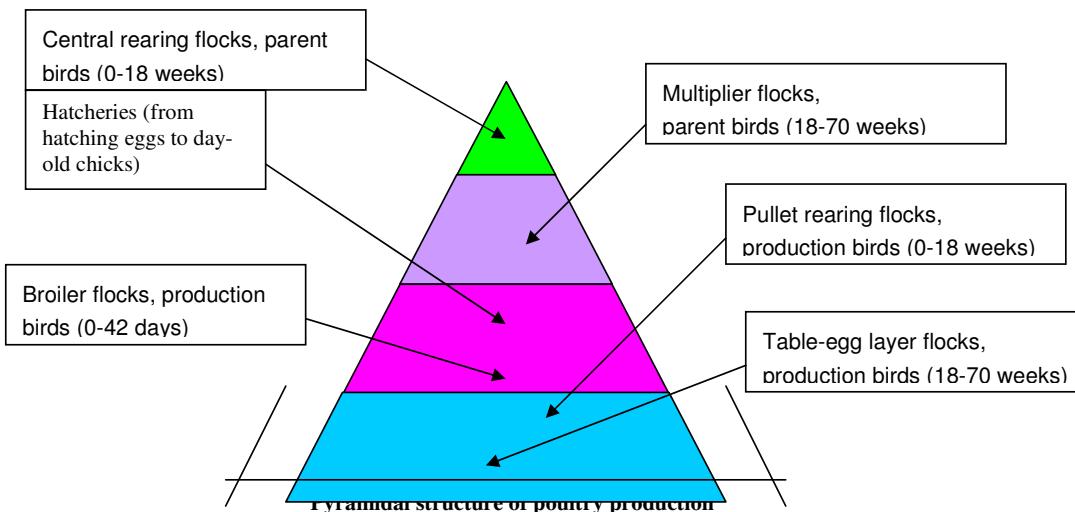
The chronological order of the National Salmonella Control Programme is shown below.

#### **Timeline for the National Salmonella Control Programme and other initiatives**

1989	1992	1992	1994	1996	1997	2000	2003 -	2008
Voluntary plan, broiler sector	Public AM inspection, broilers	Voluntary plan, table egg sector	Implementation, Zoonosis Directive	Development of the National Salmonella Control Programme	The three-year National Salmonella Control Programme begins	New three-year period, National Salmonella Control Programme	The National Salmonella Control Programme is transferred to the poultry industry	Application for obtaining special guarantees as granted to Sweden and Finland

## Poultry Production Structure

Poultry production is divided into the table egg sector and the broiler sector. A common feature of these two production forms is that only a few flocks of élite and parent birds foster the chicks which become either table egg layers or broilers. Poultry production is a pyramidal system with only a few flocks at the top and many at the bottom of the pyramid.



The poultry breeding sector currently consists of only a few multinational companies, in which two broiler-rearing companies are responsible for most of the chickens produced world-wide. The market is almost equally as concentrated in table egg poultry breeding, but on a worldwide level, 3-4 of the largest breeding companies are responsible for most of the layers used for egg production.

More than 90% of the day-old parent chicks for broiler production are imported from Sweden. Sweden imports the élite birds from a breeding company in the UK, but as Sweden cannot fully exploit the production from these imports, the surplus birds are sold to Denmark. At the same time, this provides great certainty that salmonella bacteria are not present in the imported flocks and is financially beneficial for Sweden and Denmark alike. The remaining birds are imported as day-old parent chicks from the UK, where the industry must comply with special Salmonella requirements. All purchases are made through a small company that was founded for this purpose.

For table egg production, day-old parent chicks are imported from two companies, either in Germany or from France and/or the UK.

The industry has laid down special conditions related to the control of Salmonella, and samples are taken from all flocks of parent chicks before they are placed in Danish poultry houses to ensure that the chicks are salmonella-free when they arrive in Denmark.

Day-old layer chicks are also imported, i.e., the same chicks that are subsequently used as layers in the table egg production process. These chicks are imported from a Swedish hatchery which via the industry is subject to the same strict salmonella control as in Denmark, as the Swedish control programme is not as comprehensive as its Danish counterpart. The purchases are not centrally organised as in the broiler sector.

## Feed

The Salmonella Control Programme requires the use of salmonella-free animal feed. Consequently, the poultry industry made an agreement with the feed producing companies to monitor the feed production and to ensure that only feed free of salmonella is supplied to holdings participating in the programme, and they did so at the onset of the voluntary programmes. As the various programmes became compulsory, legislation was introduced in 1993 enabling the Danish Plant Directorate to monitor Salmonella in the feed production. However, the poultry industry's monitoring programme was allowed to continue.

Together with the Feed Industry, The Danish Poultry Council has prepared a guideline for 'Good production practices in the manufacture of poultry feed'. The first edition of this guideline came into force in 1990 and is continuously updated.

The guideline concentrates on achieving an expedient organisation of the facilities at feed mills in terms of the buildings, machinery and conveyance equipment. There should also be a distinct separation between raw materials and finished products, as well as a HACCP programme for the production line. Each feed mill must have cleaning programmes tailored to the feed mill. If a feed mill also produces feed for other farm animals than poultry, the mill must comply with special requirements, and there are also limitations as to how animals may receive the feed. In cooperation with the authorities, the organisation for the organic industry, Organic Denmark, are preparing a similar guideline for the production practices in the manufacture of organic poultry feed. During the manufacturing process the feedingstuff must be heated to at least 81°C, and this temperature must be continuously registered.

An impartial laboratory visits each feed mill at least four times a year to inspect the production facilities and to take samples at critical control points for the purpose of detecting Salmonella and/or coliform bacteria. If salmonella is detected, the mill immediately loses its permit to supply feed until the problem has been solved.

## **Control Measures**

### **Parent flocks:**

Parent and multiplier (rearing) flocks are declared infected if S. Enteritidis, S. Typhimurium, S. Hadar, S. Virchow and S. Infantis is detected by bacteriological analyses. These five serotypes are the ones pointed out by the EU Commission to be the most important in relation to human illness from poultry. The flock is declared suspected if any serotype other than the above mentioned is detected by bacteriological testing.

If a flock is declared suspected, the Regional Veterinary Officer collects samples from the flock for confirmation of the infection. If the samples turn out to be negative, sampling must be repeated once more. Meanwhile, the flock is still regarded as suspected. However, if the second confirmatory sampling is also negative, the flock is declared free of salmonella. In order to ensure that these serotypes are not detected repeatedly in the same flock from time to time and does not go unsanctioned, it has been decided that if the same serotype is subsequently detected at any other time during the lifespan of the same flock, in a previous flock in the same house or another flock at the same premise within the same timeframe, the flock shall be considered infected and subsequently be destroyed irrespective of the fact that the flock may have tested negative once or several times between the first and second detection.

### **Broilers:**

The control programme requires thorough cleaning and disinfection following the detection of Salmonella in a broiler flock. In the following flock, the owner must take one extra pair of sock sample in order to locate the source of any possible infection. In addition, the down time after the slaughter of the following flock shall be extended to at least 12 days in order to ensure sufficient cleaning and disinfection of the poultry house. The reason the extended downtime is applied after the flock following the infected flock is that the contract with the suppliers of day-old birds fixes the restocking date far in advance and cannot be changed at short notice. If salmonella is detected in a flock restocked after the thoroughly cleaning and disinfection process has been carried out, the owner must prepare an action plan that describes the initiatives he will carry outtake in order to eliminate salmonella from the production environment. The competent Authority must accept the action plan.

If any Salmonella serotype is detected in an ante-mortem sample for broilers, the flock will be destroyed. However, the flock may be slaughtered provided that all meat is heat-treated after slaughter or processed in such a way as to ensure complete decontamination, and provided that there is no risk of the spread of salmonella.

### **Layers:**

The programme and restrictions are the same as described for the parent flocks except that upon suspicion, confirmatory samples are taken only once. If the confirmatory samples are negative, the flock will be declared non-infected.

To reduce the risk of contaminated eggs reaching consumers from suspected flocks, all eggs from such flocks will be sent for heat treatment until the flock is cleared free of suspicion by negative confirmatory tests. If a flock is declared infected, it may continue to produce eggs, but only for heat treatment.

If one or more flocks are infected on farms where several flocks are housed, the frequency of sampling of uninfected flocks will be increased. Samples are then taken every four weeks instead of every 9 weeks.

## Results

The results in both sectors have been good: the percentage of positive broiler-production flocks at *ante-mortem* (AM) inspection has declined from 12.9% in 1997 to below 1.0% in 2008. Since the launch of the National Salmonella Control Programme, the percentage of flocks infected with Salmonella in the breeding and parent flock segments has hovered around 1-2%, and as the detection of infection has resulted in flock eradication, none of these flocks have spread Salmonella down through the production pyramid. This is very important, because in Denmark we have only a few breeding flocks supplying many production flocks. The percentage of infected flocks in the table egg sector (both rearing and layers) has declined from 13.4% in 1998 to below 1% in 2008. In the beginning of the program, the dominant serotype was *S. Enteritidis* FT8.

This improvement in the primary production segment is reflected in a striking decline in the number of registered human salmonellosis cases.

### Broilers

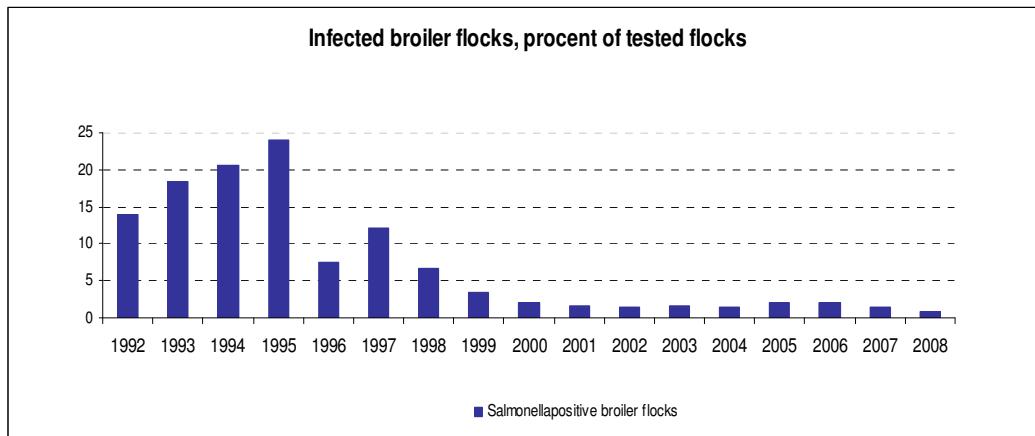
The results of the salmonella testing in the broilers production during the period 2000-2007

Broilers						
Year	Rearing breeders		Adult breeders		Broilers	Chicken meat
	No of flocks tested/pos. flocks/ % pos. flocks	No of flocks tested/ infect. flocks/ % infect. flocks	No of flocks tested/pos.flocks/ % pos. flocks	No of flocks tested/ infect. flocks/% infect. flocks	No of flocks tested/ pos.flocks/ % pos. flocks	No of batches/pos. batches/ % pos.
2000	222/4/1.8%	222/3/1.4%	345/11(3)/3.1%	345/3/0.9%	4,567/87/2.1%	4,543/131/2.9%
2001	243/0/0%	243/0/0%	345/13(7)/3.8%	325/7/2.2%	4,504/67/1.5%	1,695 <sup>1</sup> /69/4.1%
2002	241/0/0%	241/2/0.8%	330/11(3)/3.3%	330/2/0.6%	4,378/65/1.5%	1,667/92/5.5%
2003	265/3(3)/1.1%	265/2/0.8%	182 <sup>2)</sup> /7(3)/3.8%	182/4/2.2%	4,385/74/1.7%	1,552/77/5.0%
2004	275/1(1)/0.4%	275/1/0.4%	155 <sup>2)</sup> /7(3)/4.5%	155/6/3.9%	4,313/64/1.5%	1,472/24/1.6%
2005	214/0/0%	214/0/0%	185 <sup>2)</sup> /1(1)/0.5%	185/0/0%	4,083/85/2.1%	1,17427/2.3%
2006	190/0/0%	190/0/0%	282/6 <sup>3)</sup> (5)/2.1%	282/5/1.8%	3,640/80/2.2%	875/17/1.9%
2007	152/0/0%	152/0/0%	258/8(3)/3.1%	258/3/1.2%	3,486/55/1.6%	884/10/1.1%

1) Sampling at the slaughterhouse was changed from pooled neck skin samples to chicken cut sampling of batches

2) The number of flocks for these years is lower than they should be because the ID number of a number of flocks has not been changed in the database when new flock was restocked. For these houses only one flock has been registered for one year although there have been two flocks in the house.

3) The figures include 3 flocks from the same holding suspected to be infected due to a positive sample at the hatchery. The flocks were slaughtered before sampling so the suspicions were not confirmed.



## Layers

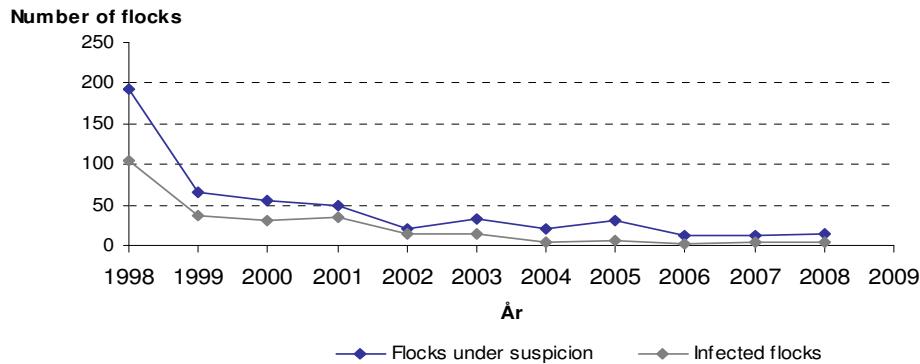
The results of the salmonella testing in the layer production during the period 2000-2007

Year	Layers							
	No of flocks tested / no of positive flocks/ percent positive flocks/ no of infected flocks <sup>1</sup> / percent infected flocks							
Rearing breeders		Adult breeders		Rearing layers		Layers		
	Flocks/pos./% pos.	Flocks/inf./% inf.	Flocks/pos./% pos.	Flocks/inf./% inf.	Flocks/pos.% pos.	Flocks/inf./% inf.	Flocks/pos./% pos.	Flocks/inf./% inf.
2000	15/0/0%	15/0/0%	29/0/0%	29/0/0%	374/13(11)/3.5%	374/8/2.1%	688/34(33)/4.9%	688/32/4.6%
2001	14/0/0%	14/0/0%	22/0/0%	22/0/0%	339/7(3)/2.1%	339/4/1.2%	607/37(37)/6.1%	607/35/5.8%
2002	15/0/0%	15/0/0%	22/2(2)/9.1%	22/0/0%	330/12(4)/3.6%	330/9/2.7%	619/15(15)/2.4%	619/15/2.4%
2003	24/0/0%	24/0/0%	15/0/0%	15/0/0%	367/4(2)/1.1%	367/4/1.1%	611/14(12)/2.3%	611/10/1.6%
2004	9/2(2)/22%*	9/2/22%*	9/0/0%	9/0/0%	368/3(0)/0.8%	368/1/0.3%	641/10(9)/1.6%	641/5/0.8%
2005	16/0/0%	16/0/0%	9/0/0%	9/0/0%	255/14(14)/5.5%	255/6/2.4%	655/13(12)/2.0%	655/7/1.1%
2006	17/0/0%	17/0/0%	11/1(0)/9.1%	11/0/0%	289/5(3)/1.7%	289/1/0.3%	565/3(3)/0.5%	565/2/0.4%
2007	18/0/0%	18/0/0%	12/1(0)/8.3%	12/0/0%	326/2(1)/0.6%	326/0/0%	510/7(6)/1.4%	510/5/1.0%

\* 2 positive flocks in the same holding, identical serotypes; the second approx. 6 weeks after the first.

An infected flock is a flock where the same serotype has been detected in a confirmative sample.

## Number of layer flocks under suspicion and number of layer flocks infected



## Application for special guarantees

In October 2007, Denmark forwarded an application to the EU for obtaining special guarantees as granted to Sweden and Finland in accordance with article 8 in Regulation (EC) No 853/2004 of the European Parliament and of the council of 29 April 2004 laying down specific hygiene rules for food of animal origin as regards meat from the species Gallus Gallus. According to article 8, 3b in Regulation 853/2004 any Member State or any region of a Member State that has a control programme recognised as equivalent to that approved for Sweden and Finland in respect of the food of animal origin concerned can obtain the same special guarantees as Sweden and Finland.

It is encouraging to note that the European Union has already put several regulations in place for the control of Salmonella and other food-borne zoonotic agents and for the monitoring of zoonoses and zoonotic agents, including antimicrobial resistance related to these agents, e.g. Directive 2003/99/EC and Commiss-

sion Regulation (EC) No 2160/2003<sup>1</sup>, among others. However, as indicated by the results of the baseline studies for Salmonella, Member States within the EU are at different stages in the process of combating Salmonella. So while we support the fact that the EU should make progress together in the struggle against Salmonella, it is also important that in the meantime individual countries take all necessary steps to improve food safety in their own territories. This is why we wish to further increase food safety and consumer protection in Denmark by requiring all producers wishing to supply chicken meat to the Danish market to test their products prior to their despatch to the Danish market.

Along with the application for obtaining special guarantees, the control programme in Denmark was tightening several times, most recently in January 2009. The details of our programme are presented in the separate description of the Danish Salmonella Control Programme for broilers and layers, which includes both sampling plans and corrective measures taken in case of the detection of Salmonella. The sampling programme is comprehensive so as to ensure that Salmonella is detected if present in live animals, eggs or in chicken meat. The occurrence of Salmonella in the Danish broiler production has remained persistently low since 2000, with prevalence between 0 % and 3.9 % in adult breeder flocks, between 1.2 % and 1.5 % in broilers and between 1.6 % and 5.5 % in fresh poultry meat. The occurrence of Salmonella in layers has been decreasing since the late 1990s, with prevalence between 0.4% and 2.6% since 2002.

The result of the application is still unknown, but it is still in process.