



EUROPEAN COMMISSION
HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Unit 04 Veterinary control programmes

Working document SANCO/12160/2010

**REPORT OF THE
FOODBORNE ZOOSES –SALMONELLOSIS
SUB-GROUP TASK FORCE**

Meeting of the Task Force for monitoring disease eradication in the Member states:

Belgium

31 May 2010

**Report of the meeting of *Salmonella* sub-group of the Commission's Task Force for
Monitoring animal disease eradication held in Brussels, Belgium
31 May 2010**

Participants: see Annex I

Agenda: see Annex II

Introduction

This report is a short summary of the various informative presentations given during the 5th meeting of the subgroup of the Commission's Task Force for monitoring *Salmonella* control. The main aim of the meeting was to exchange views on presentations and open subsequent subgroup discussions on the details of execution of the *Salmonella* control programmes in breeding flocks and in laying hens of *Gallus gallus* implemented in Belgium, as well as to give floor for presentations and subgroup discussions on the impact of biosecurity measures in the successful implementation of *Salmonella* control programmes in general.

Scope

The expert group meeting in Belgium was the fifth of a planned series of meetings with the scope of initiating discussions on the details of implementation of the national *Salmonella* control programs in poultry populations run in the Member States with the aim to share experiences, identify common obstacles as regards the implementation of programmes, and to identify areas where further work and solutions may be sought.

The meeting encompassed the following subject presentations:

- Experiences and challenges of the implementation of the *Salmonella* control programme in breeding flocks in Belgium/ - *Katie Vermeersch, BE*
- Implementation of the *Salmonella* control programme in laying flocks in Belgium/ - *Katie Vermeersch, BE*
- The role of biosecurity in the implementation of the *Salmonella* control programmes in flocks of breeding and laying hens/ - *Katie Vermeersch, BE*

Discussion sessions took place after each presentation, and resulted in a final discussion with common conclusions and recommendations, see Annex II Agenda.

Points discussed

Initially, the Belgian representatives should be commended for a well-organised and meticulously prepared meeting, providing a wealth of information on the Belgian *Salmonella* control programs in poultry, and for their willingness to enter into frank and open discussions on the results achieved and problems encountered.

Chicken Breeding Flocks

Breeding flocks in Belgium have been monitored and subjected to various national control programmes since 1993. The present *Salmonella* control programme in breeding flocks, implementing EU regulations, has been in operation since 2006. An important component of the programme is vaccination of parent flocks that was recommended from 1999, and made mandatory for *Salmonella* Enteritidis from 2007. Vaccination of selection breeding flocks (grand parents and above) is however prohibited, in order to keep selection flocks fully susceptible and thereby facilitate identification of any *Salmonella* introductions as quickly as possible. Holdings must be authorised by the competent authority. Farmers are compensated for the removal of infected flocks, and the subgroup was presented with a good valuation scheme that could serve as a model for those countries still working on compensation schemes for removal of flocks.

Laying Hens

Layer flocks in Belgium have been subjected to various national control programmes since 1999. The present *Salmonella* control programme in layers, implementing EU regulations, has been in operation since mid-2007. An important component of the programme is vaccination of layer flocks that was recommended from 2005, and made mandatory for *Salmonella* Enteritidis with the current programme from 2007. Holdings have to be registered, but not authorised by the competent authority.

Biosecurity

Farm hygiene and farm management is an important part of any *Salmonella* control programme. Preventive measures ('sanitary qualification') outlining structural and management requirements for all poultry farms in Belgium were introduced in 1999, and the subgroup was presented with a well-designed and comprehensive check list for inspection visits of farms, including all relevant items such as hygiene barriers, entrance rules for farm staff and visitors, wild bird and rodent control, etc.

Conclusions and recommendations of the subgroup

During the meeting a number of issues of common interest were raised and discussed, as regards potential obstacles to successful implementation of *Salmonella* control programmes in poultry.

- *Stakeholder cooperation*: In general, it was felt that there is an increasing and improving cooperation among stakeholders along the food chain, i.e. amongst the veterinary, medical and poultry industry sectors. A Belgian Zoonosis Centre is operational, but has so far only dealt with outbreak investigations. It is the recommendation of the subgroup that this work should be expanded to include monitoring trends and sources of human salmonellosis, using serotyping, phage typing, antimicrobial resistance and genotyping data where available, in order to better understand and possibly reduce food-borne salmonellosis originating from poultry.
- *Feed*: Introduction of *Salmonella* via poultry feed is still an important risk factor. 'In Belgium, national measures are laid down. These measures, including notification, treatment of feed, information to customers, recall, etc are well followed by the industry. Further

harmonization of management measures (identification of critical serotypes, batch processing, notification,) is necessary.'

- It is the recommendation of the subgroup that a decision tree for feed production process control based on HACCP principles should be developed and implemented, that monitoring results should be available to the poultry industry and the competent authority, and that an approval or certification system for poultry feed producers should be implemented. Ideally the certification system should include independent validation of feed business operators' monitoring results.
- Vaccination: The introduction of mandatory vaccination against *Salmonella* Enteritidis resulted in very significant reductions in human infection and in infected flocks, especially within the layer sector. However, little further progress has been made for the past 2-3 years. It is the recommendation of the subgroup that vaccination against *Salmonella* Typhimurium (as well as *Salmonella* Enteritidis) should be promoted, and that good vaccination practice should be promoted in order to ensure comprehensive and efficient vaccination coverage against major zoonotic serovars.
- Further progress: Apart from the points made above, the further development of competencies for epidemiological investigations and decontamination measures should be encouraged. This is particularly important for the remaining persistently infected holdings that are hindering progress, but also on the more general level of combining and analysing information from various points along the food chain, in order to identify and eliminate sources of *Salmonella* contamination. In this context, the validity of surveillance data is crucial, and some efforts should be directed into an investigation of possible differences in *Salmonella* prevalence data between official samples and samples taken by the food business operators. International expertise may be helpful for in depth investigation of persistent contamination issues in poultry holdings, hatcheries and feed production facilities.

Summary of the presentation:

'Experiences and challenges of the implementation of the Salmonella control programme in breeding flocks in Belgium'

(presented and drafted by Dr Katie Vermeersch)

Salmonella control in breeding flocks of *Gallus gallus* started in 1993 with the 6 weekly monitoring for *Salmonella* Enteritidis (Se) and *Salmonella* Typhimurium (St). At that time, Se and St positive flocks were treated with antibiotics. In 1999 preventive measures (sanitary qualification: structural requirements, management requirements and exit control) were laid down for all poultry holdings with a capacity of at least 200 birds. At the same time, recommendations for Se vaccination of breeding flocks were formulated. The current programme started in 2005 and was completely functional in 2007.

The objectives of the Salmonella control programme in breeders in Belgium are a decrease of the number of human cases of salmonellosis, monitoring of *Salmonella* in breeding flocks and prevention of antimicrobial resistance due to treatment of *Salmonella* with antimicrobials. The

monitoring of Salmonella is situated at farm level. All samples (rearing and production) are taken and analyzed conform Regulation (EC) n°1003/2006, for the exception of day-old-chicks (DOC) where pieces of inner lining of the transport boxes are used as sample material. Confirmation analyses may be performed by or under the authority of the FASFC (Federal Agency for the Safety of the Food Chain) using 5 pair of overshoes and 2 dust samples, each analyzed separately.

Preventive measures are based on vaccination, biosecurity, hygiene, feed quality (microbiological) and campaigns for consumers. Besides the measures laid down in Regulation (EC) n° 2160/2003 (destruction of incubated hatching eggs, pasteurization of not yet incubated hatching eggs and early slaughter of the positive flock within the month), and in Regulation (EC) n° 1177/2006 (prohibition of using antimicrobials as treatment for Salmonella), the following additional measures are laid down by national legislation in case of a flock positive for Se, St, S. Hadar, S. Virchow and S. Infantis: logistic (at the end of the day) slaughter at the end of production of flocks positive for other serotypes, cleaning and disinfection of the house, hygienogram and swab control. The score of the hygienogram must be satisfactory and the swab control must be negative for Salmonella before restocking the house. There is also a prohibition to use antimicrobials for the treatment of Salmonella, regardless of serotype. Movement of flocks positive for one of the 5 serotypes is under permission of the FASFC.

Owners are compensated for the purchase of the vaccine (100%), for the loss of value (70%) due to early slaughter, due to destruction of birds and eggs and due to the pasteurization of eggs. The value of the birds and hatching eggs are set out in value tables based on true expenses, drawn up by the sector and validated by the Minister for the Safety of the Food Chain. The FASFC pays for all analyses for the exception of the DOC. The detection of Salmonella is performed in the laboratories of the animal health associations. Positive results (any serotype) are reported immediately to the FASFC and all results are reported on a monthly basis.

Official sampling is performed by the animal health associations under the authority of the competent authority (FASFC). Yearly official inspections are performed by the FASFC using standardized checklists.

In the past 5 years, the compliance with routine monitoring has increased significantly. The vaccination against Se is well followed, there is a low motivation for vaccinating against St. The number of flocks positive for the 5 serotypes range between 0 and 1%, a decrease in the number of flocks positive for other serotypes is noted. As of 2007, All of the flocks of which the confirmation analyses were negative, stayed negative until the end of production. The number of reported human cases decreased from 12.792 in 2003 to 3.178 in 2009, mainly due to a decrease of the number of Se cases.

Precise data on costs and benefits are not available. In addition of the known costs (purchase of vaccines, compensation of owners, tests), other costs (economical losses due to vacancy of the houses, labour costs, costs of campaigns for the consumers) have to be taken into account. The benefits are mainly public health benefits, a decrease in the number of human salmonellosis, and are the result of all Salmonella control programmes, not just the breeders' programme.

Finally, the subgroup wishes to thank our Belgian colleagues from the Federal Agency for the Safety of the Food Chain for informative and stimulating presentations and discussions on sharing experiences relevant to the implementation of Salmonella control programmes in poultry.

ANNEX I

Participants:

Subgroup members:

Dr. Rob Davies, UK

Dr. Mogens Madsen, DK

Dr. Miguel Angel Martin Esteban ES

European Commission (DG SANCO-Unit 04):

Dr. James Moynagh - Head of Unit 04

Dr. Sarolta Idei - Veterinary administrator

Belgian representatives:

Dr Katie Vermeersch

Dr Luc Vanholme

Dr Hilde Van Meirhaeghe

Dr Mieke Geerinckx

Dr Jacqueline Evers

ANNEX II

31 MAY 2010

Time	Item	Speaker
10.00	Welcome coffee and introduction	
10.10- 11.30	Experience and challenges of the implementation of the salmonella control programme in breeding flocks of <i>Gallus gallus</i> in Belgium Introduction of the control programme Organisation of monitoring and control on national level	Katie Vermeersch Luc Vanholme Hilde Van Meirhaeghe Mieke Geerinckx Jacqueline Evers
11:30- 12:30	<ul style="list-style-type: none"> • Questions and answers • Observations and recommendations relevant to the presentation 	Subgroup
12:30- 13:45	Lunch break	
13:45 - 15:30	Challenges of the execution of the salmonella control programme in laying hens of <i>Gallus gallus</i> in Belgium The role of biosecurity in the implementation of the salmonella control programme	Katie Vermeersch Luc Vanholme
15:30- 15.45	Coffee break	Host and Subgroup
15:45- 16:30	<ul style="list-style-type: none"> • Questions and answers • Observations relevant to the presentation 	Subgroup
16:30- 17:30	Recommendations for the report to be drafted by the subgroup	Chair to take the lead
18.00	Close	