



EUROPEAN COMMISSION
HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Veterinary and international affairs

Unit G5 -Veterinary programmes

SANCO/12578/2012/

REPORT OF THE
"FOODBORNE ZONOSSES –SALMONELLOSIS"
SUB-GROUP TASK FORCE
Meeting held in
Portugal
31 May-1 June 2012

**Report of the meeting of
" Foodborne zoonoses Salmonellosis" subgroup of the Task Force
held in Tomar, Portugal on 31 May-1 June 2012**

List of participants: see Annex I

Agenda of the meeting: see Annex II

Introduction

This report is a short summary of the various informative presentations given during the 7th meeting of the " **Foodborne zoonoses Salmonellosis**" Task force subgroup.

The main aim of the meeting was to exchange views and discuss the *Salmonella* control programmes (SCP) in breeding flocks and in laying hens of *Gallus gallus* implemented in Portugal.

The meeting encompassed the following discussions:

- Experiences and challenges of the implementation of the *Salmonella* control programme in breeding flocks of *Gallus gallus*
- Implementation of the *Salmonella* control programme in laying flocks , broilers *Gallus gallus* and in turkeys
- The role of biosecurity in the implementation of the *Salmonella* control programmes in flocks of breeding and laying hens
- National Reference Laboratory for Salmonellosis

The meeting included the following subject presentations:

- Structure and organization of the Portuguese Veterinary Services (DGAV)
- Production system characterization
- Sampling at the initiative of the Food Business Operators (FBO) and their involvement
- Approach to the different *Salmonella* National Control Programs in poultry Portugal (breeders, laying hens, broilers, fattening turkeys)
- Regional implementation of *Salmonella* Control Programs
- The role of the Private Diagnostic Laboratory
- National Reference Laboratory (NRL) - *Salmonella* in Portugal; *Salmonella* typing
- Models and pathways set out for communication

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

Presentations

Structure and organization of the Portuguese Veterinary Services (DGAV),

by Dr Antonio Pina Fonseca

Dr Pina Fonseca presented a detailed overview of the structure and organization of the Portuguese Veterinary Services (DGAV) at the central, regional and local levels and a description of the distribution of responsibilities of national authorities and local autonomous regions and communication network that provide a comprehensive model for provision of veterinary services.

The Directorate-General for Veterinary Matters (DGV) is the national veterinary health authority responsible for coordinating and implementing the Programme.

The Directorates for Regional Veterinary Services (DSVRs) are responsible for monitoring and implementing the different actions in the relevant areas, including the collection of official samples.

There are five Directorates for Regional Veterinary Services in mainland Portugal.

In the Autonomous Regions of Madeira (RAM) and the Azores (RAA) the competent official bodies are the Regional Directorate for Agriculture and Rural Development and the Regional Directorate for Agrarian Development, respectively.

The five Directorates for Regional Veterinary Services in mainland Portugal are known by the following abbreviations:

1. N - North
2. C - Centre
3. LVT - Lisbon and Vale do Tejo
4. ALT - Alentejo
5. ALG - Algarve

The collection of samples by operators shall take place under the responsibility of the veterinarian in charge.

Production system characterization,

by Prof. Dr Manuel Chaveiro Soares, FEPASA

Professor Soares from the poultry industry organization FEPASA presented a general overview of the agricultural production in Portugal, as well as a detailed presentation of the poultry industry and the HACCP programs introduced to increase food safety throughout the poultry production.

Sampling at the initiative of the Food Business Operators (FBO) and their involvement

By Dr Ricardo Batista, FEPASA

Dr Batista gave a very comprehensive overview of the involvement of the FBO in the self-monitoring of *Salmonella*, and the progress obtained. He underlined that the key to success was the great commitment and determination in the teamwork of all parties involved (DGAV, industry,

associations, and producers). A very important component in this was the development of Producers' Handbooks, and a coordinated training of key players like advisors and producers.

Approach to the different *Salmonella* National Control Programs in poultry (breeders, laying hens, broilers, fattening turkeys),

by Dr Ana Filipa Lourenco

Dr Lourenco presented the general organizational structure and the stakeholders in the national Salmonella Control Programs, and the specific components of the SCPs for each of the sectors breeding flocks, layers, broilers and turkeys. She also addressed the structural changes to the SCPs for 2013, and concluded by listing the key success points for the progress obtained in Portugal: - Commitment and investment from a highly professional industry, wide dissemination of programs including a DGAV website, intensive training, establishment of information circuits, and verification of biosecurity measures by CA.

Regional implementation of *Salmonella* Control Programs,

by Dr Alexandra Fernandes

Dr Fernandes presented the regional structure and the implementation of the SCPs at regional level. Much emphasis was put on the training of producers in the correct sampling procedures, planning, and sampling materials. Also, detailed information was provided on the management of infected flocks.

Information flow of bodies involved in the implementation of the *Salmonella* Control Programs,

by Dr Ana Filipa Lourenco

Dr Lourenco summarized the bodies involved in the implementation of SCPs in Portugal, the models and pathways set out for communication, and the information flow between the bodies. This included also the set-up of a list of authorized testing laboratories, and the reporting of results.

The role of the Private Diagnostic Laboratory,

by Dr Ana Cardoso, LMV

Dr Cardoso provided insight into the role and work of a private diagnostic laboratory authorized to carry out analyses under the national SCPs. She also explained the process of getting approved by the CA, and the quality assurance carried out at the laboratory.

National Reference Laboratory (NRL) - *Salmonella* in Portugal,

By Dr Rosario Vieira

Dr Vieira (Quality Assurance of the NRL *Salmonella* in Portugal) introduced the laboratory, and described the functions of the reference laboratory in relation to the Competent Authority, to the authorized private laboratories, and to the EU Reference Laboratory for *Salmonella*.

The National Institute for Biological Resources – National Laboratory for Veterinary Research (INRB-LNIV) is the national reference laboratory for animal salmonellosis, and is responsible for the official recognition of diagnostic laboratories for applying the salmonella detection method in accordance with ISO 6579:2002/Amd.1:2007 (E).

Once they have obtained recognition from the INRB, I.P/LNIV, laboratories are authorised by the DGV and undertake in a protocol to comply with the procedures for the flow of information defined by the competent authority.

The laboratories authorised by the DGV to take part in the NSCP are listed in the NSCP.

For the purposes of the validation of own checks each producer will have to carry out the detection analyses in a laboratory featuring on that list.

The NRL participates in ring trials on detection and serotyping organized by the EURL *Salmonella*, and has demonstrated satisfactory performance in these trials.

National Reference Laboratory (NRL) - *Salmonella* typing,

by Dr Patricia Themudo

Dr Themudo presented the specific activities of the NRL *Salmonella* on detection, serotyping and antimicrobial sensitivity determinations. The NRL participates in ring trials on detection and serotyping organized by the EURL *Salmonella*, as well as in other proficiency testing programmes, and has demonstrated satisfactory performance in these trials.

Discussions on main elements of the programmes

Breeding flocks

The present *Salmonella* control program in breeding flocks, implementing EU regulations, has been in operation since 2007, and fully implemented by 2008.

Holdings must be authorized by the competent authority. Up till 2011 farmers were compensated for the removal of infected flocks, but this practice has been discontinued as from 2012 for budgetary reasons. Vaccination is not compulsory and vaccination is implemented in all breeding farms at the initiative of the operator. Vaccines are approved by the competent authority (DGAV), however no recommendations or best practices are enforced. This measure is under the competency of the veterinary professionals of the breeding companies.

Data were presented that demonstrated considerable progress with the reduction of the *Salmonella* prevalence in breeder flocks, from 13.7% positive flocks at the onset of the program in 2007 to the present level (2011) of 0.8%. The prevalence is below the EU target of 1% or less positive breeder flocks with the five relevant *Salmonella* serotypes (*S. Enteritidis*, *S. Typhimurium* (including monophasic variants), *S. Infantis*, *S. Hadar* and *S. Virchow*).

Laying hens

The present *Salmonella* control program in layers, implementing EU regulations, has been in operation since 2008.

Holdings have to be registered by the regional Veterinary Services. Vaccination is compulsory; there is no compensation for infected flocks.

Data were presented that demonstrated considerable progress with the reduction of the *Salmonella* prevalence in layer flocks, from 47.7% positive flocks in 2005 to the present level (2011) of 1.8%. Portugal has thus achieved the Community target for the relevant *Salmonella* serotypes (*S. Enteritidis* and *S. Typhimurium* (including monophasic variants)).

Broilers

The present *Salmonella* control program in broilers, implementing EU regulations, has been in operation since 2009.

Data were presented that demonstrated considerable progress with the reduction of the *Salmonella* prevalence in broiler flocks, from 39.3% positive flocks in 2005 to the present level (2011) of 0.4%.

Turkeys

The present *Salmonella* control program in turkeys, implementing EU regulations, has been in operation since 2010.

No breeding turkey flocks are kept in PT.

Fattening turkeys: 2006: 0%; 2011: 0.2% prevalence of regulated serotypes. Community target achieved for 2 consecutive years.

Biosecurity

Much focus on biosecurity under the programmes. Farm hygiene and farm management is an important part of any *Salmonella* control programme. Preventive measures outlining structural and management requirements for poultry farms were introduced in detail. Breeding farms are operated on an all-in/all-out basis, with cleaning and disinfection between flocks.

Involvement of private sector

SCPs are highly integrated with, and partly driven by, the private poultry sector. Commitment of industry and cooperation with the Competent Authority is good.

Training and dissemination of information

Manuals were produced and training sessions in SCP aspects and biosecurity carried out for producers a.o. as a joint action between industry and CA highlighting the importance of training.

Conclusions and recommendations

During the meeting potential obstacles to successful implementation of *Salmonella* control programs in poultry were discussed.

Conclusions

- Complements are due regarding progress on SCPs.
- First subgroup meeting with participation of industry and private laboratories. Indicates good cooperation between CA and private sector; common goals and commitment.
- Biosafety is seems to be well tackled in Portugal, due to commitment from industry.
- Strategic approach taken by CA by industry involvement at implementation of SCPs is very good.
- Emphasis on training and dissemination, with production of manuals for the different sectors, is very good.
- A logical and detailed data reporting system is present.
- Breeders: the incidence of positive flocks is now so low that eradication is achievable with a little extra effort.

Recommendations

- To enhance co-operation between authorities in charge of public health for epidemiological purposes.
- To ensure that all required official sampling, at the frequency detailed in relevant legislation, and associated checking of producer records is carried out in all sectors. This is to ensure that operator sampling has been carried out according to requirements and records of flock medications and sampling times in relation to flock age and recent use of medication provide evidence of appropriate testing. This is an important check on the operation of national SCPs.
- To carefully monitor trends in occurrence of all *Salmonella* serovars and antimicrobial resistance, since successful control of regulated serovars may create niches for establishment of others.
- In particular, the introduction of improved monitoring programmes for detection of *Salmonella* contamination in feed production, based on testing process dust samples and serotyping of isolates to identify regular sources of *Salmonella* and the occurrence of resident process contamination in feed processing establishments is recommended.
- To explore possibilities to introduce process monitoring in animal feed. The introduction of *Salmonella* via poultry feed is still an important risk factor. Intervention possibilities that can be enforced locally need to be further explored in the absence of harmonised EU requirements. It is the recommendation of the subgroup that in feed production, implementation of a process control based on HACCP principles and its verification by sampling would contribute to improvement.

- Hatchery: swabbing of macerator after use or dust in extraction vents from hatching and chick handling areas is a sensitive method for *Salmonella* detection in the hatching process.
- Layers: important to ensure getting all samples; consider a warning or fine system for those failing to deliver all samples. Representative sampling in cage houses with roll-up belts is difficult and may be best achieved by using hand held swabs along the length of the belts and dust accumulation after movement of egg collection belts, or from air extraction points or beneath cages.
- *S. Enteritidis* cases in laying flocks are often associated with long-term undetected persistent infections, exacerbated by increased rodent activity prior to detection. It is recommended that these factors be investigated in more detail in the Portuguese situation.
- Antimicrobial resistance: checks for use of antibiotics in official samples (lab test, at random; veterinary declaration).
- Dust sampling seems to be viewed with certain reservations, even though it is a sensitive sample material and good indicator of infection in flocks.
- Corresponding results reported to be obtained by official and FBO sampling. To explore the possibility for randomized control of FBO sampling by unannounced replicate sampling by taking some official samples shortly after operator samples have been taken is recommended.
- More realistic EQA samples for laboratories involved in processing samples for the SCPs is recommended. These could involve an approach similar to that used by EURL *Salmonella* for regulating NRLs, frozen artificially contaminated fecal samples or naturally contaminated fecal samples.
- Currently the NRL *Salmonella* carries out the EURL annual *Salmonella* isolation ring trial. It would be more appropriate if the laboratory carrying out official testing participated in the ring trial. It is also possible to extend the value of the ring trial by distribution of aliquots incubated pre-enrichment broth to other laboratories and repeating the trial in parallel with the NRL.

Observations made by Commission

Regulation of the Council and the European Parliament (EC) No 2160/2003 requires mandatory slaughter or destruction of breeding flocks and their hatching eggs positive for *Salmonella enteritidis* and *Salmonella typhimurium*

As indicated in Article 288 of the Treaty on European Union, a Regulation shall be binding in its entirety and directly applicable in all Member States.

Finally, the subgroup wishes to thank our colleagues for informative presentations and discussions on sharing experiences relevant to the implementation of *Salmonella* control programs in poultry.

ANNEX I

List of participants

Subgroup members of the Task Force

Mr Mogens Madsen, DK chair

Mr Robert H. Davies, UK

Ms Veronica Cibin, IT

Mr Arjen Van de Giessen, NL

Mr Miguel Martin Esteban, ES

Mr Petr Satran, CZ

European Commission, DG SANCO,

Unit G5-Veterinary Programmes

Ms Valentina Piazza,

Ms Sarolta Idei,

Portugal hosts

Prof. Dr Nuno Vieira e Brito, CVO

Prof. Dr Manuel Chaveiro Soares

Mr Ricardo Batista

Mr António Pina Fonseca

Ms Ana Filipa Lourenço

Ms Alexandra Fernandes

Ms Ana Cardoso

Ms Rosário Vieira

Ms Patricia Themudo

ANNEX II

Agenda

31 de maio a 1 de junho de 2012

Tomar

Portugal

1º dia - 31 de maio de 2012

09:00 horas	- Boas-vindas e introdução – Prof. Dr Nuno Vieira e Brito – Diretor Geral de Veterinária Welcome and introduction – Prof. Dr Nuno Vieira e Brito, Chief Veterinary Officer (CVO)
09:15 horas	– Apresentação do subgrupo da Task-Force da <i>Salmonella</i> e introdução Comissão Europeia Presentation of the subgroup on Salmonella Task-Force and introduction – European Commission
09:30 horas	– Estrutura e organização dos Serviços Veterinários – António Pina Fonseca, DSSPA Structure and organization of the Veterinary Services – António Pina Fonseca, DSSPA
10:00 horas	– Caracterização do sistema produtivo – FEPASA Production system characterization – FEPASA
10:30 horas	– Debate Discussion
11:00 horas	– Intervalo para café Coffee break
11:30 horas	- Autocontrolo – Importância da envolvimento da produção – FEPASA Sampling at the initiative of the food business operators – Involvement of the FBO - FEPASA
12:00 horas	– Debate Discussion
12:30 horas	– Intervalo Break
14:30 horas	Abordagem aos diferentes Programas nacionais de Controlo de Salmonella – DSSPA Approach to the different Salmonella Control Programs - DSSPA

15:30 horas	– Debate Discussion
16:00 horas	– Intervalo para café Coffee break
16:30 horas	Implementação dos diferentes Programas Nacionais de controlo de salmonelas – DSVR Implementation of Salmonella Control Programs – DSSPA Specific characteristics per poultry sector
17:30 horas	– Debate Discussion
18:00 horas	- Encerramento Closure

2º dia - 1 de junho de 2012

09:00 horas	– Circuitos de informação - DSSPA Information flow of bodies involved in the implementation of the programme - DSSPA
09:30 horas	– Laboratório de diagnóstico privado Private diagnostic laboratory
10:00 horas	– Laboratório Nacional de Investigação Veterinária National Veterinary Research Laboratory
10:30 horas	NRL role in co-ordination of proficiency testing
11:00 horas	– Debate Discussions on goals linked to the performance of laboratories under the programme
11:30 horas	– Intervalo para café Coffee break
12:30 horas	– Reunião do subgrupo Meeting of the subgroup
	– Conclusões finais e recomendações Final conclusions and recommendations
	– Encerramento Closure