

IX European Symposium on the Quality of Poultry Meat and XIII European Symposium on the Quality of Eggs and Egg Products

21–25 June 2009
Turku, Finland

Programme (subject to changes)

Sunday 21 June

17.00–20.00 Registration and Get-together party

University of Turku, Publicum building, address Assistentinkatu 7

Monday 22 June

09.00–10.00 C1 Opening session

chair Eija Helander, Suomen Rehu Oy, Finland

Opening *Eija Helander*, President of the Finnish Branch of WPSA,
Suomen Rehu Oy, Finland

Greetings from Finnish Ministry of Agriculture and Forestry

Jouni Lind, Ministry of Agriculture and Forestry (MMM), Finland

Greetings from WPSA,

Achille Franchini, President of the European Federation of WPSA,
University of Bologna, Italy

10.00–10.30 Coffee break

10.30–12.35 C2 Challenges for future poultry production

chair Rainer Huopalahti, University of Turku, Finland

10.30–11.05 Competitiveness of the European broiler industry: future perspective

Peter van Horne, Agricultural Economics Research Institute (LEI),
Wageningen University and Research Center, The Netherlands

11.05–11.30 Challenges for the Future Poultry Production, *Tage Lysgaard*, Danish Poultry
Council, Denmark

11.30–11.55 Future prospects for the European egg industry

Pascale Magdelaine, Technical Institute for Poultry Production (ITAVI),
France

11.55–12.20 Poultry and eggs - competitive sustainability? *Sirpa Kurppa*,
Agrifood Research Finland (MTT), Finland

12.35–14.00 Lunch

14.00–17.35 C3 Hygiene and product safety

14.00–15.30 Part 1

chair *Lea Lastikka*, Finland's Poultry Association, Finland

14.00–14.35 Salmonella in poultry meat and eggs: can we go to a zero level?

Filip van Immerseel, Ghent University, Belgium

14.35–15.00 Finnish salmonella programme

Jaana Husu-Kallio, Finnish Food Safety Authority (Evira), Finland

15.00–15.25 Salmonella risk in Finnish poultry production – exploiting risk assessment in control programme evaluation

Pirkko Tuominen, Finnish Food Safety Authority (Evira), Finland

15.30–16.00 Coffee break

16.00–17.35 Part 2

chair *Winy Messens*, Institute for Agricultural and Fisheries Science (ILVO), Belgium

16.00–16.25 Epidemiology of *Salmonella* infections in laying hens with special emphasis on the influence of the housing system

Jeroen Dewulf, Ghent University, Belgium

16.25–16.50 Is decontamination the right answer to the occurrence of pathogen bacteria on poultry meat?

Lüppo Ellerbroek, Federal Institute of Risk Assessment, Germany,

16.50–17.35 Oral communications

* Swiss Salmonella Enteritidis-control programme for layers: a success story, ***Richard Hoop***, University of Zurich, Switzerland

* Evaluation of bacterial indicators for monitoring the Salmonella Enteritidis status of layer farms, ***Isabelle Dewaele***, Institute for Agricultural and Fisheries Research (ILVO), Belgium

* Vaccination with concealed antigens to control *D. gallinae* infestations in laying hens, ***David Harrington***, Newcastle University, UK

XIII European Symposium on the Quality of Eggs and Egg Products

Tuesday 23 June

08.30–12.30 E1 Egg quality: effect of genetic, nutrition and hen management

08.30–10.20 Part 1 Genetics

chair Johanna Vilkki, Agrifood Research Finland (MTT), Finland

08.30–09.05 Better measurement, better selection, *Ian Dunn*, Roslin Institute and Royal (Dick) School of Veterinary Studies, Scotland

09.05–10.20 Oral communications

* The deposition of the eggshells' cuticle is a moderately heritable trait, *Maureen Bain*, University of Glasgow, Scotland

* QTL for egg shell quality, *Maria Tuiskula-Haavisto*, Agrifood Research Finland (MTT), Finland

* Identification of new chicken genes coding eggshell proteins potentially involved in the natural defences of the egg using cDNA arrays, *Vincent Jonchere*, French National Institute for Agricultural Research (INRA), France

* Analysis of blood spots in egg layers, *Mervi Honkatukia*, Agrifood Research Finland (MTT), Finland

10.20–10.45 Coffee break

10.45–12.30 Part 2 Effect of nutrition and hen management

chair Eeva-Liisa Ryhänen, Agrifood Research Finland (MTT), Finland

Oral communications

* The effect of *Camelina sativa* cake on fatty acid composition and sensory quality of eggs and broiler meat *Ilmo Aronen*, Raisio Group Ltd, Finland

* Influence of feeding different sources of poly unsaturated fatty acids on egg quality and performance of layers *Zafar Hayat*, University of Sargodha, Pakistan

* Dioxins and PCBs in German hen eggs - Results of a monitoring study, *Wolfgang Jira*, Max Rubner – Institute (MRI), Germany

* Penetration of Salmonella Enteritidis through the vitelline membrane of hen's eggs as affected by its strength during the laying period *Saskia Leleu*, Institute for Agricultural and Fisheries Research (ILVO), Belgium

* Effects of vaccine strains of infectious bronchitis virus on egg quality in unvaccinated and vaccinated laying hens *Juliet Roberts*, University of New England, Australia

* Relationship between egg quality traits and hatchability in pure-line white layer strains *David Caverio Pintado*, Lohmann Tierzucht GmbH, Germany

12.30–14.30 Lunch and Poster session

14.30–17.30 E2 Non-invasive decontamination and egg quality measurement techniques

14.30–16.20 Part 1

chair Achille Franchini, University of Bologna, Italy

14.30–15.05 The impact of alternative processing technologies on the quality of eggs and egg products, **Margherita Rossi**, University of Milan, Italy

15.05–16.20 Oral communications

* Healthy Sterilized Shell Egg, **Seyda Demir**, Meykon A.S., Turkey

* Effect of egg washing on the cuticle of table eggs **Winy Messens** Institute for Agricultural and Fisheries Research (ILVO), Belgium **and Maureen Bain** University of Glasgow, UK

* Selection of a chitosan type for eggshell coating to reduce shell contamination **Saskia Leleu**, Institute for Agricultural and Fisheries Research (ILVO), Belgium

* Eggshell bacterial levels of non-washed and washed eggs from caged and cage-free hens **R. Jeff Buhr**, United States Department of Agriculture – Agricultural Research Service (USDA-ARS), USA

16.20–16.45 Coffee break

16.45–17.30 Part 2

chair Achille Franchini, University of Bologna, Italy

16.45–17.30 Oral communications

* Monitoring the health of brown layers using the transmission color value of the eggs defined by VIS/NIR spectroscopy **Kristof Mertens** Katholieke Universiteit Leuven, Belgium

* Finite element analysis of the relationships between dynamic, physical and mechanical egg properties **Catalin Perianu** Katholieke Universiteit Leuven, Belgium

* Egg quality prediction by using Fourier Transform Near Infrared Reflectance Spectroscopy (FT-NIR) **Gui-Yun Xu**, China Agricultural University, China

Wednesday 24 June

08.45–12.15 E3 Physico-chemistry and biological activity of egg compounds

08.45–10.30 Part 1

chair Françoise Nau, Agricampus Ouest, INRA, France

08.45–09.20 What are the keypoints to understand the physico-chemical and biological activities of egg compounds, **Marc Anton**, French National Institute for Agricultural Research (INRA), France

09.20–10.35 Oral communications

* CO₂ ap for the improvement of physico-chemical and technological properties of egg white, **Emiliano Cocci**, University of Bologna, Italy

* Effect of antioxidant supplementation and refrigerated storage on fatty acid profile, tocopherols and oxidative stability of omega-3 enriched eggs, **Zafar Hayat**, University of Sargodha, Pakistan

* *The bioactive properties of ovoflavoprotein hydrolysate*, **Ari Hietanen**, Agrifood Research Finland (MTT), Finland

* *The effects of different degradation methods for solubility and bioactive properties of ovomucin* **Jaakko Hiidenhovi**, Agrifood Research Finland (MTT), Finland

* Modification of lysozyme by dry-heating: small cause, big effect, **Françoise Nau**, Agrocampus Ouest, INRA, France

10.35–11.00 Coffee break

11.00–12.15 Part 2

chair Jaakko Hiidenhovi, Agrifood Research Finland (MTT), Finland

11.00–11.25 Avian antimicrobial peptides in hen reproductive tract and egg,
Virginie Hervé-Grépinet, French National Institute for Agricultural Research (INRA), France

11.25–12.15 Oral communications:

* OVONUTRIAL project: technologies impact on nutritional value and allergenicity of egg proteins, **Françoise Nau**, Agrocampus Ouest, INRA, France

* Tailoring eggs for health benefits: The challenge of eggs more compatible with CVD and possibly egg-associated diabetes risks, **Niva Shapira**, Tel Aviv University, Israel

* Production of cholesterol reduced egg yolk adsorption with beta-cyclodextrin, **Muhammed Yüceer**, Canakkale OnSekiz Mart University, Turkey

12.15–13.30 Lunch

13.30–15.00 E4 Effect of alternative system on egg quality

chair Maureen Bain University of Glasgow, Scotland

13.30–14.05 Bacterial contamination of table eggs and the influence of housing systems,
Koen De Reu, Institute for Agricultural and Fisheries Research (ILVO), Belgium

14.05–15.00 Oral communications:

* Laying performance and egg quality of blue-shelled layers as affected by different housing systems, **Lu-Jiang Qu**, China Agricultural University, China

* Egg quality characteristics of organic laying hens fed different levels of *Salvia officinalis*,
Dimitrios Galamatis, Aristotle University of Thessaloniki, Greece

* Organic egg quality parameters influenced by feed, hen line and forage material,
Marianne Hammershøj, Aarhus University, Denmark

* Assessment of the efficacy of a low-temperature gas plasma prototype for surface decontamination of table eggs, **Lucia Vannini**, University of Bologna, Italy

IX European Symposium on the Quality of Poultry Meat

Tuesday 23 June

08.30–12.00 M1 Hygiene and product safety

08.30–09.45 Part 1

chair Henrik Bunkenborg, Danish Meat Association, Denmark

08.30–09.05 Veterinary inspection in slaughter houses under future challenges, **Reinhard Fries**, Free University of Berlin, Germany

09.05–09.30 Measures to control campylobacter in broiler and broiler meat, **Hanne Rosenquist**, Technical University of Denmark, Denmark

09.30–09.45 Oral communication:

* Sampling methods and carcass locations affect recovery of bacteria from broiler chicken carcasses **Douglas Paul Smith**, North Carolina State University, USA

09.45–10.45 Coffee break

10.45–12.00 Part 2, Oral presentations

chair Henrik Bunkenborg, Danish Meat Association, Denmark

* Use of Dietary Mannobiose to Reduce Gut Salmonella and Campylobacter in Broiler Chickens and Turkeys, **Yanming Han**, Nutreco, The Netherlands

* The role of the specific immune response on cecal colonization of slow-growing broiler chickens by Campylobacter spp. reared on contaminated litter, **Sabrina Vandeplass**, Gembloux Agricultural University, Belgium

* Carcass quality and safety during campylobacteriosis, **Julia Dvorska**, Sumy National Agrarian University, Ukraine

* Identification and assessment of vulnerabilities in the poultry meat production chain to dangerous agents and substances, **Sabine Andrée**, Max Rubner – Institut (MRI), Germany

12.00–14.30 Lunch and Poster session

14.30–18.00 M2 Slaughter technique

14.30–16.15 Part 1

chair Roland Kranen, Stork Food Systems, The Netherlands

14.30–15.05 Handling of by-products from the slaughter process, **Brian Kiepper**, University of Georgia, USA

15.05–16.15 Oral presentations

* Effect of preslaughter transport duration on meat quality of broilers slaughtered at different body weights and seasons, **Servet Yalçın**, Ege University, Turkey

* Effect of application of five natural antioxidants above automatically deboned broiler meat, **Maria Angelica Fellenberg**, Pontificia Universidad Católica de Chile, Chile

* Technological characteristics of turkey breast rolls formulated using fresh or thawed meat and different functional ingredients, **Massimiliano Petracci**, University of Bologna, Italy

* Effects of sample preparation on the water/protein ratio of poultry cuts in relation to the identification of extraneous water, **Gisela Hahn**, Max Rubner – Institut, Germany

16.15–16.45 Coffee break

16.45–18.00 Part 2, Stunning of poultry under view of animal welfare
chair R. Jeff Buhr, USDA, USA

Roundtable discussion moderated by *R. Jeff Buhr*, USDA, USA

- Why poultry should be stunned at slaughter and the welfare advantages/challenges of electrical and gas stunning
R. Jeff Buhr, USDA, USA
- Electrical stunning of broiler chickens
Simone Prinz, University of Hohenheim, Germany
- Anoxic stunning of poultry
Dorothy McKeegan, University of Glasgow, Scotland
- Controlled atmosphere stunning
Bert Lambooj, Wageningen University, The Netherlands

Wednesday 24 June

08.45–12.30 M3 Meat composition and quality

08.45–11.00 Part 1
chair Eero Puolanne, University of Helsinki, Finland

08.45–09.20 The role of connective tissue in poultry meat quality
Eero Puolanne, University of Helsinki, Finland

09.20–09.55 Effects of stress before slaughter on the quality of poultry meat
Hervé Remignon, Université de Toulouse, France

09.55–11.00 Oral presentations

* Is it possible to differentiate poultry breeds on the basis of volatile biomarkers? **Elisabeth Baéza**, French National Institute for Agricultural Research (INRA), France

* Near-infrared reflectance spectroscopy for predicting lipid content in duck breast meat, **Elisabeth Baéza**, French National Institute for Agricultural Research (INRA), France

* Identification of genes controlling the variations of chicken meat quality: Gene expression profile analysis, **Cecile Berri**, French National Institute for Agricultural Research (INRA), France

* Does the chicken genotype « Géline de Touraine » have specific carcass and meat characteristics? **Elisabeth Baéza**, French National Institute for Agricultural Research (INRA), France

11.00–11.30 Coffee break

11.30–12.30 Harmonization of methods to determine meat quality in poultry
Roundtable discussion, chaired by Ed Moran, University of Auburn, USA

Techniques for measuring meat quality
Ed Moran, University of Auburn, USA

12.30–13.30 Lunch

13.30–15.00 M4 Breeding and management factors affecting meat quality
chair Elisabeth Baéza, INRA, France

13.30–14.05 Definition of slow growing breeds and available broiler breeds
Yves Jégo, Hubbard Breeders, France

14.05–14.30 Natural antioxidants and meat quality: prospects and limitations
Peter Surai, Alltech, UK

14.30–15.00 Oral presentations

* Muscle gene expression and protein content in relation to intramuscular fat in Muscovy and Pekin ducks, **Gladys Saez**, French National Institute for Agricultural Research (INRA), France

* Functional genomics of pre-slaughter stress responses in chicken muscle, **Caroline Molette**, Université de Toulouse, (Institut National Polytechnique de Toulouse (INPT) – Ecole Nationale Supérieure Agronomique de Toulouse (ENSAT), France

* Genetic parameters of mule ducks' meat and fatty liver performances simultaneously estimated in both parental lines, **Christel Marie-Etancelin**, French National Institute for Agricultural Research (INRA), France

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15.00–16.00 C4 New approaches to understand the biological basis of egg and meat quality
chair Michel Duclos, French National Institute for Agricultural Research (INRA), France

15.00–15.30 Functional genomics reveal numerous novel egg proteins
Joel Gautron, INRA, France

15.30–16.00 From QTL to genes controlling poultry meat quality traits
E. Le Bihan-Duval, INRA, France

16.15–16.45 C5 Closing Ceremony
chair Rainer Huopalahti, University of Turku, Finland

Closing words, **Bob Pym**, WPSA, Australia
Farewell, **Rainer Huopalahti**, University of Turku, Finland