

# Book of Abstracts

## ‘EGGMEAT 2017’

XVII<sup>th</sup> European  
Symposium on the  
Quality of Eggs and  
Egg Products

XXIII<sup>th</sup> European  
Symposium on the  
Quality of Poultry Meat.



**EGGMEAT 2017**  
3-5th September, Edinburgh, Scotland

03-05 September 2017 | John McIntyre Conference Centre, Edinburgh University

The symposia is organised by the Eggmeat 2017 committee under the auspices of the UK branch of the World' Poultry Science Association (WPSA) and the European Federation of the WPSA.

The EGGMEAT 2017 symposium is a joint activity of working groups 4 and 5 of the European Federation of the WPSA. This symposium forms part of the WPSA's mission to support education, organisation and research in the poultry sector. An industry that provides a large proportion of the world's food.



### **Organising and Scientific Committee**

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### **Local Team**

Holly Ferguson  
Hannah Dunn  
Pete Wilson  
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The resulting elevated percentages for quail may be due to a higher number of mitochondria in their muscle tissue and the subsequently isolated higher concentration of mitochondrial DNA, which was subsequently used in the PCR analysis.

Key words: poultry species, mitochondrial DNA, real-time PCR, quantitation

## MEAT\_II\_SO\_10

### EFFECTIVENESS OF IMMERSION TREATMENTS WITH ACETIC AND CITRIC ACIDS AND MODIFIED ATMOSPHERE PACKAGING AGAINST *CAMPYLOBACTER JEJUNI* IN POULTRY

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Raw poultry is a well-recognized source of *Campylobacter jejuni*. The aim of this study was to evaluate the combined effect of a mixture of acetic and citric acids and packaging in modified atmospheres on the growth of *Campylobacter jejuni* in poultry. Fresh chicken legs inoculated with 5 log cfu/g of *Campylobacter jejuni* were dipped into a mixture containing 1% acetic acid and 1% citric acid. Control legs were treated with distilled water. Inoculated samples were packaged under different gas mixtures: vacuum, 20% CO<sub>2</sub> /80% N<sub>2</sub>, 40% CO<sub>2</sub>/60% N<sub>2</sub> or air. Significant differences (p<0.05) in mesophiles and psychotrophs counts were found between the legs treated with a mixture of acetic and citric acid and the control legs after treatment. Legs washed with a mixture of 1% acetic and 1% citric acid solution showed a significant (p<0.05) inhibitory effect on *Campylobacter jejuni* compared to control legs, being about 1.51 log units lower after treatment. No significant reduction in *Campylobacter jejuni* counts was observed in samples packaged in modified atmospheres. In conclusion, immersion of chicken legs in a mixture of 1% acetic acid and 1% citric acid solution can reduce *Campylobacter jejuni* populations on fresh poultry. Modified atmospheres are not able to reduce *Campylobacter jejuni*.

Keywords: food safety, pathogens, poultry, modified atmosphere packaging, *Campylobacter*

## MEAT\_II\_SO\_11

### BROILER CHICKENS TRANSPORT AND IT EFFECT ON MEAT QUALITY

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Consumer demand for improved product standardization defines production trends in the poultry industry. Therefore, appropriate pre-slaughter management practices that ensure animal welfare and focus on food quality and safety should meet such requirements. This study assessed the effects