

## Editorial

# From Farm to Fork: New Strategies for Quality Evaluation of Fresh Meat and Processed Meat Products

**Gonzalo Delgado-Pando** <sup>1</sup>, **Carlos Álvarez** <sup>1</sup>, and **Lara Morán** <sup>2</sup>

<sup>1</sup>Department of Food Quality and Sensory Science, Teagasc, Food Research Centre Ashtown, Dublin 15, Ireland

<sup>2</sup>Lactiker Research Group, Department of Pharmacy and Food Science, University of the Basque Country (UPV/EHU), Alava 01006, Vitoria, Spain

Correspondence should be addressed to Gonzalo Delgado-Pando; [g.delgado.pando@gmail.com](mailto:g.delgado.pando@gmail.com)

Received 28 August 2019; Accepted 31 August 2019; Published 14 November 2019

Copyright © 2019 Gonzalo Delgado-Pando et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Meat production has increased globally over the past decades and is expected to keep growing. At the same time, consumers have become more demanding with respect to the quality of meat and meat products. Producing high quality meat consistently is a big challenge for meat producers, processors, and retailers due to the intrinsic variability of the raw material, but it also generates the necessity to develop, improve, and upgrade the current quality analyses by faster and more reliable ones. Precisely, as results of the recent technological and biotechnological advances, a plethora of new possibilities have been opened for the meat production and processing sectors, and a vast improvement of the quality assessment and assurance throughout the whole processing could now be a reality. This special issue aims to cover the recent advances on quality assurance and assessment of fresh meat and meat products.

Eight different articles were finally accepted for publishing, after the editorial and peer-reviewing process. The average number of authors for each paper is 5.6, and the authors' affiliated institutes are from a wide variety of countries, such as New Zealand, Germany, Vietnam, China, Poland, Spain, and Ireland. This special issue covers a variety of topics that can be associated in different groups: consumer acceptance studies, emerging analytical methods, or effect of processing conditions.

With regard to the animal production line, A. Albrecht et al. studied the influence of an alternative production system based on a slow-growing, corn-fed, and antibiotics-free chicken line compared with conventional poultry production, on the quality and shelf life of poultry meat. This

paper clearly represents an opportunity towards a more sustainable poultry production due to an extensive husbandry system without antibiotics, a slower growth, and enhanced animal welfare advance in line with latest consumer demands.

Insights on the manufacturing and processing procedures to improve meat quality and safety have been given by other authors. Freezing is one of the most commonly used methods for preservation in the meat industry, and thus its effect on the quality of the final product is paramount. D. Li et al. investigated the effect of freezing conditions on mutton meat quality and structure. The importance of this study lies not only on the effect of freezing on meat microstructure but also on their innovative approach and the techniques used in the study. The paper by R. Zhang et al. aimed also to investigate the effect of freezing, but in this case on dry-aged beef meat. The use of freezing on this type of meat is not common, but it proved to be an interesting approach to extend the shelf life of the final products; however, the effect of freezing on quality parameters should be carefully assessed in this high-value product. A. Augustyńska-Prejsnar et al. completed this area with the study of the effect of different marinades on meat quality and microbiological safety of pheasant, relatively under the studied type of meat. In general, these studies highly contributed to ideas for innovation on the meat industry especially for that based on gourmet products such as pheasant or dry aged-beef.

M. M. Farouk et al. delved into the consumer preference field. They designed an acceptability survey of one of the most consumed meat products for Chinese, Korean, and

Japanese people: hot pot beef with several fat percentages. The study purposed by M. M. Farouk et al. goes beyond meat quality itself and brings knowledge of the effect of different productive, processing, and cooking methodologies on beef meat digestibility. These studies are not very common, and the information they provide is key from a nutritional and consumer marketing point of view.

The present special issue is finally completed with the in-depth review paper from this editorial group (C. Álvarez et al.), and the one presented by M. A. Cook and P. Duc Phuc. The former focuses on the measurements that are used or can be used during the rigor period in order to predict eating quality early. This comprehensive review is particularly interesting in the field since it deepens in the high number of unstudied measurements that can be easily applied during this stage and the lack of relationship of many of the used methods with final meat quality, highlighting the need of further studies. Finally, M. A. Cook and P. Duc Phuc reviewed the major pathogens and hazards identified in Southeast Asia related to the consumption of pork. This study focuses on food-borne disease impact and incidence due to pork consumption. The paper is especially interesting due to the necessity to address the high impact of food-borne disease on low- and middle-income countries.

In summary, we are pleased to introduce this special issue covering meat quality aspects from the animal production line to the consumer preference and the effect of the manufacturing processes. We sincerely hope that the readers will find this special issue interesting and informative.

### **Conflicts of Interest**

The editors declare that they have no conflicts of interest.

### **Acknowledgments**

Finally, we would like to acknowledge the authors of the papers for their contributions as well as all the reviewers for their valuable participation in the evaluation process.

*Gonzalo Delgado-Pando  
Carlos Álvarez  
Lara Morán*



**Hindawi**

Submit your manuscripts at  
[www.hindawi.com](http://www.hindawi.com)

