ICoMST 2015

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I was honoured to receive the CMSA-CMC Travel Award to attend the International Congress of Meat Science and Technology (ICoMST) 2015 held from August 23rd to 28th in France. The congress was hosted by National Institute of Agricultural Research (INRA), France. INRA is ranked first in agriculture research in Europe. It has 13 scientific divisions, 17 research centres located in different regions of France and head office in Paris. INRA has a workforce of 12,000 people including 8,290 permanent staff and 510 Ph.D. students. INRA also arranged two pre-ICoMST sessions named International Meeting on Meat Grading and Student session. This report highlights some meat related topics presented by different scientists in ICoMST and pre-ICoMST sessions.

Meat Grading Meeting

Shahid Mahmood (left) with Dr.Eero Puolanne

The international Meeting on Meat Grading was organized by David Pethick (Australia) and Jean-François Hocquette (France) from August 20 to 21, 2015, at INRA headquarters, in Paris. I was among the other 42 attendees, from different countries. Objectives of the meeting were to develop international collaboration on sensory analysis and develop lamb & beef grading system based upon consumer satisfaction. The discussion was focused on the importance of Meat Standard Australia (MSA) cuts based beef grading, scope of utilizing international sensory data to predict meat quality, global beef trading using MSA, developing a common language for meat grading and role of meat flavour & animal genetics for predicting meat eating quality.

Student Session

A two-day student session was held on August 22nd and 23rd 2015, in Clermont-Ferrand, France.

Student session attendees

About 30 students from different countries and institutes attended the session. Seven presenters demonstrated muscle properties, quality of meat proteins and their role in human diet, meat microbes, effects of cooking methods on meat quality, importance of reducing salts in processed meat and mechanism of water holding capacity in meat.

Research findings, discussed in the session, indicated that type IIB muscle fibres are present only in smaller proportion in highly muscular breeds of cattle. The relationship of meat tenderness with fibre type is very complex. It was ascertained to always measure meat pH for predicting quality, and cook high collagen meat below 100^0C for a longer time to improve tenderness. The session provided an opportunity to discuss meat quality issues with invited presenters and network with meat science students from different countries.

ICoMST Session

ICoMST formally started on August 24th at the Polydome conference centre in Clermont-Ferrand, France. The opening ceremony started with French dance and music.

The Congress theme was "Think meat Think healthy". There were about 400 participants, from 43 different countries, including scientists, students, organizers, sponsors and industrial personnel. Chairpersons of the congress were Dr.Véronique Sante Lhoutellier and Dr. Gilles Gandemer from France. The congress was divided into 11 different sessions focused on meat-related concerns such as quality of meat products, consumer satisfaction, sustainability of meat industry, impact of the industry on environment and technological advancements to address environmental issues and meat quality.

The abstract of my poster presentation is given below:

Abstract: Recent research has suggested that cattle predisposed to dark cutting can be predicted from live animal or carcass characteristics. This hypothesis was tested using production and phenotype data from an existing data set collected from heifers (n = 467) on study at three different farms. Carcasses in the data set graded Canada A (n = 14), AA (n = 296), AAA (n = 136) and B4 (dark cutting) (n = 21). Generalized logit modeling with the CATMOD procedure, analysis of variance and logistic regression were used to establish phenotypic relationships with carcass grades and farm of origin. Results indicated that farm of origin affected incidence of dark cutting and was confounded with breed and related to differences in cattle weight. Finishing heavy heifers for a short time appeared to increase the likelihood of dark cutting. Heifers at risk of dark cutting had reduced weaning weight, live weight and carcass weight. The probability of dark cutting declined with increased growth rate and at slaughter weight greater than 550kg.