STUDY OF THE CORRELATIONS BETWEEN DIFFERENT SAMPLING POINTS IN SPANISH DRY-CURED HAMS USING SENSORY PARAMETERS AND NIRS

Revilla I.a, González-Martín I.b, Vivar-Quintana A.M.a, Martinez-Martin, I.
aFood Technology Area, Polytechnic High School of Zamora. University of Salamanca.
bDpt. Analytical Chemistry Nutrition and Bromatology, Chemistry Faculty. University of Salamanca

Introduction and Aims
Spanish dry-cured ham is a very popular meat product partly owing to its flavor but also to its nutritional quality and long shelf life. As a result of this the physicochemical and sensory analysis of this product is very important. In sample preparation for analysis the ham must be boned, cut at the head of the femur, and sliced perpendicularly to the femur axis in the direction of the distal part. This kind of sampling procedure uses the most expensive part of the ham for analysis. However, the distal part near the hip joint (which is known as the point) is more accessible and cheaper. The aim of this study is to determine whether the characteristics of the point and the center of dry-cured ham could be correlated

Materials and methods

50 Iberian Spanish dry-cured hams

Results

The table shows the Pearson correlation coefficients between center and point sensory parameters-
• Some characteristics of the point such as rancid odour, taste intensity, cured intensity, sour, hardnness or pastiness did not show any significant correlation with sensory parameters of the center.
• Cured taste or fatness sensation from the center did not show any significant correlation
• Only some parameters of the center where correlated with their correspondant of the point such as salty and those related with appearance (marbling, fat colour, colour intensity , sweating) and texture (juiciness or fibrousity).
• Fat colour shows the highest number of significant correlations revealing and important role of the fat in the final sensory characteristics of the dry-cured ham

Conclusions: There are some significant correlations among sensory parameters and also between NIR spectra of the center and the point part of dry-cured ham. These result suggest that it could be possible to determine the sensory characteristics of the center part using the sensory analysis of the point. On the other hand, sensory and NIR analysis show that fat and proteins are the main responsible of the sensory characteristics of this product.