

9<sup>th</sup> Pangborn Sensory Science Symposium  
4-8 September 2011, Toronto, Canadá

The influence of starter cultures on texture and sensorial properties of “Paio”, a Portuguese dry-cured sausage.

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A traditional Portuguese dry-cured sausage called “Paio” was obtained using meat from Alentejano pig breed female 24 month aged in a traditional meat plant. For this research work three batches were inoculated. One of them was inoculated with a commercial starter composed by *Lactobacillus* spp., *Micrococcaceae* and yeasts (designed S1); another with a starter composed by *Lactobacillus sakei* and *Staphylococcus xylosus* (designed S2) and another one considered as the control sample was not inoculated (designed C).

The main goal of the present work is to evaluate the hypothetical advantage of the use of two commercial starter cultures in the sensorial and rheological characteristics of “Paio do Alentejo”. In order to obtain a trustable and detailed evaluation a trained sensory panel of 12 experts was used to analyze the samples. The descriptive analysis of the samples was obtained through a structured scale considering attributes such as colour intensity, off colour, aroma intensity, off aroma, tenderness, fibrousness, succulence, flavor intensity, off flavor, salt perception and global evaluation. The descriptive analysis of the “Paio” samples was replicated five times.

On the other hand in order to find the relationship between instrumental and sensory measurements a Texture Profile Analysis (TPA) was performed using portions of the same samples. Nowadays, the most commonly used instrumental method to evaluate texture on meat products is, probably, the compression method of Texture Profile Analysis, that mimics the conditions mastication process and allow the possibility of getting good correlations between some instrumental parameters and sensory ratings (Szczesniak, 2002).

The only relevant advantage for the use of starter S2 was to improve cohesiveness in “Paio do Alentejo”. The needless of these starters is probably due to high quality of “Paio do Alentejo” studied.

Key-words: Portuguese dry sausage, Alentejano pig breed, starter cultures, sensory evaluation, texture.