

[P1.089]

**Sensory profiling of complex meals: The case study of baked cod with cream and duck rice meals**

C. Rocha<sup>\*1,2</sup>, A. Madeira<sup>1</sup>, A.P. de Moura<sup>2</sup>, R.C. Lima<sup>1</sup>, L.M. Cunha<sup>1</sup>

<sup>1</sup>*Sense Test, Lda., Portugal*, <sup>2</sup>*Universidade Aberta, Portugal*, <sup>3</sup>*University of Porto, Portugal*

Sensory analysis provides important information for developing new products and improving existing ones on the market. In fact, this science appears as a link between research and the development of innovative foods and their acceptance by the consumer [1].

The main purpose of this study is to evaluate the effectiveness of sensory methodologies for profiling of complex meals such as baked cod with cream and duck rice.

Evaluation was performed with two sets of eight samples of industrial cod with cream and duck rice. Two independent trained panels of 9 and 12 judges evaluated the samples according to Quantitative Descriptive Analysis (QDA). Two independent panels of 16 untrained judges applied the Flash-Profile (FP) methodology over four sessions: attribute generation; final attribute list choice; evaluation 1 and 2. Two consumer panels evaluated the overall acceptance of each set of samples, on a sequential monadic presentation.

For duck rice meals, the correlation between QDA and FP was not high ( $RV=0,646$ ), and consumers preferred samples characterized by rice colour intensity, amount of duck, oiliness, bacon and chorizo in the meal. For cod with cream meals, the consumers preferred the samples characterized by amount and size of the cod pieces and intensity of cod taste, with a high correlation between FP and QDA ( $RV=0,860$ ).

Both sensory descriptive methodologies provide us with reliable and robust data in the characterization of complex meals. The FP methodology is relevant when working with panels of consumers to the extent that allows it to use their own lexicon of attributes. The application of external preference mapping on consumers' response to FP emerges as a quick tool, either to describe products or to be used by food companies that have difficulties in using trained assessors' panels.

**Acknowledgements:** This research was supported through project *NOVELTEC - Desenvolvimento de Novas Tecnologias de Suporte à Criação de Produtos Inovadores (Projeto Mobilizador n.º 13846)*, financed by AdI, with QREN and FEDER funds.



**References:**

[1] Siegrist, M. (2008) *Factors influencing public acceptance of innovative food technologies and products*. Trends in Food Science & Technology, 19, 603-608.

**Keywords:** Flash Profiling, Qualitative Descriptive Analysis, Overall acceptability, Preference Mapping