Diversity of the sensory characteristics of traditional dry sausages from the centre of France: Relation with regional manufacturing practice

Abstract

Quality labelling of traditional products may be based on identifying specific sensory properties and linking these to particular compositional characteristics or manufacturing practices. Methodology to do this in the presence of large sensory variation is required. In order to study the sensory diversity of traditional dry sausages, a typology was performed on the small scale food processing facilities in the centre of France and this identified six types of small-scale facilities with specific manufacturing practice. From these six groups, 15 small-scale facilities were chosen in order to perform a QDA® test on dry sausages with a panel of 11 trained assessors who used 24 attributes related to appearance, texture, aroma and flavour. The list of attributes used by the panel was composed of terms such as marinade aroma, roast aroma, wine flavour and roast flavour which may be specific to traditional dry sausages. The major variation among the products was related to the type of the raw material used and to the texture of the dry sausages linked to the drying time. Hierarchical cluster analysis on the sensory data led to six groups of traditional dry sausages. These sensory groups did not exactly correspond to the groups given by the typology. However, a high correlation was found by canonical correlation analysis between the typology data and the sensory data on the first factors. Moreover, the discriminant analysis showed that it was possible to classify 100% of the traditional dry sausages into specific manufacturing practice groups based on the sensory data. The methodology used in this study is well adapted for the attribution of quality labels to products manufactured by a group of producers on a defined territory.

Keywords: Traditional dry sausages; Manufacturing practice; Sensory profile; Chemometry