



## Volatile fractions and sensory attributes of San Daniele ham

B. Gaspardo, G. Procida & B. Stefanon

To cite this article: B. Gaspardo, G. Procida & B. Stefanon (2007) Volatile fractions and sensory attributes of San Daniele ham, Italian Journal of Animal Science, 6:sup1, 684-684, DOI: [10.4081/ijas.2007.1s.684](https://doi.org/10.4081/ijas.2007.1s.684)

To link to this article: <https://doi.org/10.4081/ijas.2007.1s.684>



Copyright 2007 Taylor & Francis Group LLC



Published online: 15 Mar 2016.



Submit your article to this journal [↗](#)



Article views: 16



View related articles [↗](#)

# Volatile fractions and sensory attributes of San Daniele ham

B. Gaspardo<sup>1</sup>, G. Procida<sup>2</sup>, B. Stefanon<sup>1</sup>

<sup>1</sup> Dipartimento di Scienze Animali. Università di Udine, Italy

<sup>2</sup> Dipartimento dei Materiali e delle Risorse Naturali. Università di Trieste, Italy

*Corresponding author:* Bruno Stefanon. Dipartimento di Scienze Animali. Facoltà di Medicina Veterinaria, Università di Udine. Via delle Scienze 208, 33100 Udine, Italy - Tel. +39 0432 558581 - Fax: +39 0432 558585 - Email: bruno.stefanon@uniud.it

## ABSTRACT

San Daniele ham is a typical and appreciated dry-cured Italian product with an high consumer acceptance owing to its sensory attributes. There are numerous studies concerning European hams, but only a limited number for Italian products. The aim of the study was to identify the backbone of volatile constituents of San Daniele ham and to evaluate correlations with sensorial characteristics in relation to sex and breed of animals.

Sixteen contemporary piglets (4 females and 4 castrated males for each breed) belonging to 2 different commercial breeds (SCAAPAG and JSR) were selected and their growth was monitored until the slaughtering time. After, thighs were trimmed and cured for 12 months, according to the San Daniele Consortium protocol. The head space sampling technique coupled with GC-MS was used to assess the volatile compounds (Barcarolo, 1992). Hams underwent sensory analysis by a panelist of expert assessors, who were members of a certified organization (ACAU - Associazione Culturale Assaggiatori Udine, Italy). The gustative, olfactory and visual attributes evaluated were sweetness, sapidity, taste and odor intensity, aroma persistency and quality, lard and meat color, aspect and compactness.

Identified compounds belong to the chemical groups of alcohols, aldehydes, ketones, hydrocarbons, esters, sulphur compounds, terpenes and ethers, whilst nitrogenous compounds, reported for Spanish and French hams (Sabio *et al.*, 1998), were not detected. Instead, the majority of the other identified compounds have previously been reported in studies carried out in European hams (Flores *et al.*, 1997; Sabio *et al.*, 1998). Alcohols resulted the more represented chemical group and were significantly higher in hams produced from castrated pigs. According to Ruiz *et al.* (1999), alcohols increase with the time of ripening and are higher around 12 months of age. Only minor statistical differences were found for volatile compounds and for sensorial characteristics between breed and sex. Volatile compounds showed significant positive correlations with sweetness, olfactory persistence and quality; total alcohols, in particular, were associated by assessors with ham maturation. Further investigation are required to assess the relevance of volatile compounds to describe the quality of San Daniele ham.