



## Fungal diversity along the maturation of dry cured sheep legs: analysis of raw materials, product and environment

ALMEIDA<sup>1</sup>, T.S.; DOS SANTOS<sup>1</sup>, B.A.; STEFANELLO<sup>1</sup>, A.; NALÉRIO<sup>2</sup>, E.S.; GIONGO<sup>2</sup>, C.; COPETTI<sup>1</sup>, M.V.

<sup>1</sup>Graduate Program in Food Science and Technology, Rural Sciences Center, Federal University of Santa Maria – UFSM, Zip code: 97105-900, Santa Maria, RS, Brazil, Email: tiagosda11@gmail.com; bialvessantos@gmail.com; andri\_stefanello@hotmail.com; marina.copetti@ufsm.br

<sup>2</sup>Embrapa Livestock South, Highway BR-153, Km 633, Industrial Village, Countryside – Zip code: 96.401-970, Bagé, RS – Brazil, Email: elen.nalerio@embrapa.br; citieli.giongo@embrapa.br

The presence of fungi in cured meat products can benefit both the sensory quality and shelf life of these products. These microorganisms originate mainly from raw materials, besides processing and maturation environment, and establishes communities that influence the product characteristics throughout maturation. Thus, the objective of the study was to identify the fungi present on the surface of the sheep legs and in the areas of processing along their maturation. The sheep legs were experimentally subjected to two treatments (with and without the addition of spices) before maturation. Sampling was carried out in triplicate with collections by swab from the surface of the product, also samples of about 50 g for the condiments, besides air sampling. Mycological analyses were carried out in Dicloran Glycerol 18%, incubating for 7 days at 25°C, in duplicate. Analyses of the air from the production area along the 180-day maturation environment revealed the predominance of *Cladosporium* sp., followed by xerophilic *Aspergillus* from the section *Aspergillus* (formerly *Eurotium* sp.), besides yeasts. At the end of 180 days of sheep legs maturation, contamination averages of 5.01 log CFU/100cm<sup>2</sup> were obtained in the traditional hams, with a predominance of xerophilic *Aspergillus* (5.77 log CFU/100 cm<sup>2</sup>), yeasts (4.27 log CFU/100 cm<sup>2</sup>), *Cladosporium* sp. (3.07 log CFU/100 cm<sup>2</sup>) and the potentially toxigenic *Aspergillus westerdijkiae* (2.22 log CFU/100 cm<sup>2</sup>). In the hams with condiments, the total count obtained was 7.19 log CFU/100cm<sup>2</sup>, with emphasis in a mycobiota exclusively composed by xerophilic species of *Aspergillus* from section *Aspergillus*. Considering that these xerophilic *Aspergillus* species do not have toxigenic potential, the use of seasonings seemed to increase the mycological quality of the hams, enhancing the population of this group of fungi, and protecting from toxigenic species, since no toxigenic fungi were detected at the end of maturation in the seasoned hams.

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