

EFFECT OF GENOTYPE AND SALT CONCENTRATION ON THE QUALITY OF PORTUGUESE TRADITIONAL *PAIOS* (S40C02)

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Nowadays, there is an increasing demand for traditional food products, which is concomitant with higher nutritional and health concerns. The need to reduce salt concentrations or replace NaCl by salt substitutes, such as KCl, has been evidenced by the World Health Organisation, who recommends daily salt intake values of 5 g, corresponding to less than 2 g of sodium. Alentejano (Al) and Bísaro (Bi) are two autochthonous Portuguese pig breeds, traditionally reared in extensive systems. Al is a fatty pig closely related to the Iberian pig, belonging to the group of the Mediterranean pigs, while Bi fits within the Celtic pigs. One of the most appreciated Portuguese traditional dry-cured meat products is *Paio*. For this study made in the frame of the European TREASURE* project, *Paios* were manufactured at a local production unit, using two different pig genotypes: pure breed Al and the hybrid genotype BiAl. Products were made with two different NaCl concentrations in the final product, namely 2 and 6%. The main aim of this work was to evaluate the differences in quality between the two genotypes, while attempting to reduce salt without compromising safety standards or consumer acceptability. The effect of genotype and salt content on physicochemical and microbiological parameters, along with sensory attributes, was studied on Portuguese *Paios*. Regarding total lipid content, there were significant differences between genotypes, with hybrid BiAl products showing higher values. Concerning pH and water activity (a_w), significant differences were observed between salt contents, with low-salt products showing lower pH, but higher a_w values. The total content in biogenic amines was higher in Al

products, mainly due to the amounts of putrescine and cadaverine, resultant from the presence of decarboxylating bacteria. Generally, low-salt *Paños* showed a higher content in biogenic amines. Furthermore, salt reduction did not depreciate the quality and acceptability of sausages.

Keywords: Low-salt; Alentejano pig; Bísaro pig; dry-cured meat products

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