Addition of vinegar to "cabeça de xara" made from Alentejano pig meat increases shelf life

Marta Laranjo, Maria Eduarda Potes and Miguel Elias

Instituto de Ciências Agrárias e Ambientais Mediterrânicas (ICAAM). Universidade de Évora. Portugal
Escola de Ciências e Tecnologias, Universidade de Évora, Portugal
presenting author: elias@uevora.pt

Instituto de Ciências Agrárias e Ambientais Mediterrânicas
Knowledge connecting land, food and people

EuroSense 2014: A Sense of Life

AIMS

- **The aim of this study was to evaluate the use of vinegar to increase the products' shelf life without negatively affecting the physical and microbiological parameters, as well as its sensory attributes.**

INTRODUCTION

"Cabeça de xara" is a very typical product from Alentejo region. It's a very particular type of *galantine*, made from meat, tongue and connective tissue removed from Alentejano pig breed heads. Usually this product has a parallelepiped shape, as those used in the present study, with 40 cm length and 14 cm height.

MATERIALS & METHODS

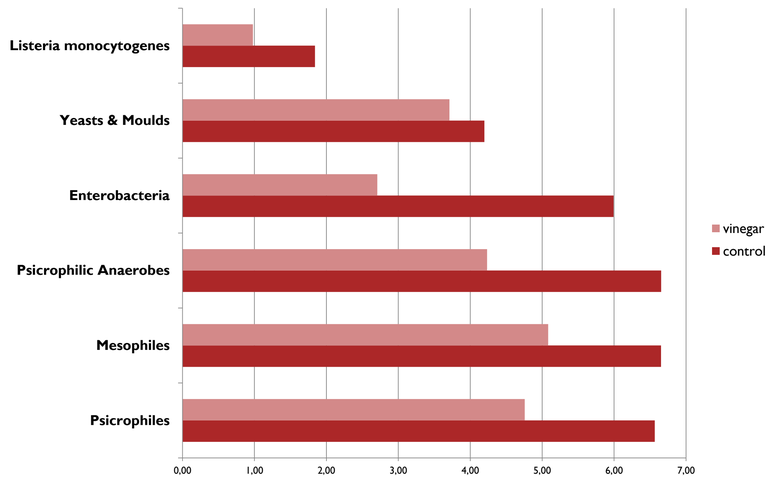
Two different treatments were compared, namely control and vinegar, for three months using end product "cabeças de xara". Three batches with two replicates per treatment were used. One-Way ANOVA was used for statistical analyses.

Microbiological and physical parameters
- Microbiological analyses according to the ISO standards
- aw and pH measurements according to the Norma Portuguesa NP-3441

Sensory evaluation:
- Descriptive/quantitative analysis in a scale from 1 to 100
- 10 trained panellists

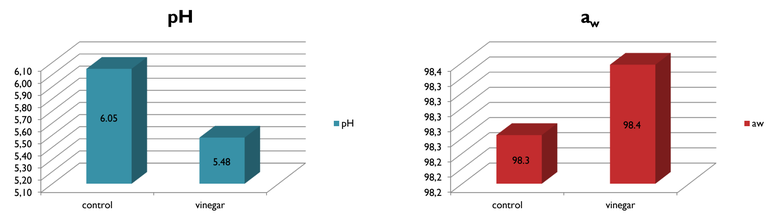
RESULTS

Microbiological analyses



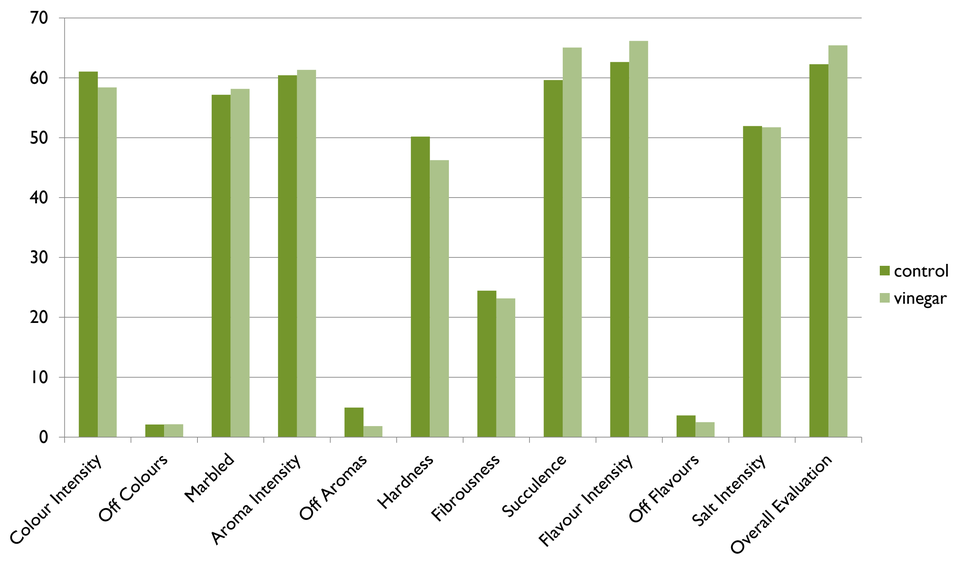
➢The microbiological flora of the "cabeça de xara" showed no significant differences regarding yeasts and moulds. The counts of total mesophiles, psycrophiles, psycrophilic anaerobes, enterobacteria and *Listeria monocytogenes* were higher in the control treatment. Only a few samples showed a minor contamination with *L. monocytogenes*.

pH & a_w



➢ The mean pH of the "cabeça de xara" with vinegar (5.48) was much lower than the pH of the control treatment (6.05). However, no significant differences were observed between control and vinegar treatments regarding water activity (aw).

Sensory Analysis



➢Regarding sensory analysis, panellists generally gave higher scores to the vinegar treated "cabeça de xara". Furthermore, significant differences were observed between control and vinegar "cabeça de xara" concerning the attributes off aromas and hardness (both showing higher values for control treatment), and succulence and flavour intensity, with higher values in the vinegar treated "cabeça de xara".

CONCLUSIONS

➢Considering the results of the end product at three months shelf life, the vinegar treated "cabeça de xara" showed lower microbial counts, probably due to the lower pH values.

➢ To our knowledge, this is the first report on the physical, microbiological and sensorial characteristics of such a traditional product.

➢Both safety and sensory characteristics of the product were improved with the vinegar treatment.

Acknowledgements

This work was supported by national funds through project PRODER 13.021 (QREN/PRODER/Medida 4.1). Fundação para a Ciência e a Tecnologia (FCT) under the Strategic Project PEst-OE/AGR/UI0115/2014 and co-funded by FEDER Funds through the COMPETE Programme. The authors thank PALADARES ALENTEJANOS Lda.. A. Oliveira. G. Pias and R. Bicho for their collaboration.