

ENHANCED MEATS IN THE CATALAN MARKET

Ivette Hernández Piqué. Treball de Fi de Grau. Ciència i Tecnologia dels Aliments. Facultat de Veterinària, Universitat Autònoma de Barcelona, Bellaterra.

INTRODUCTION

- **Definitions**

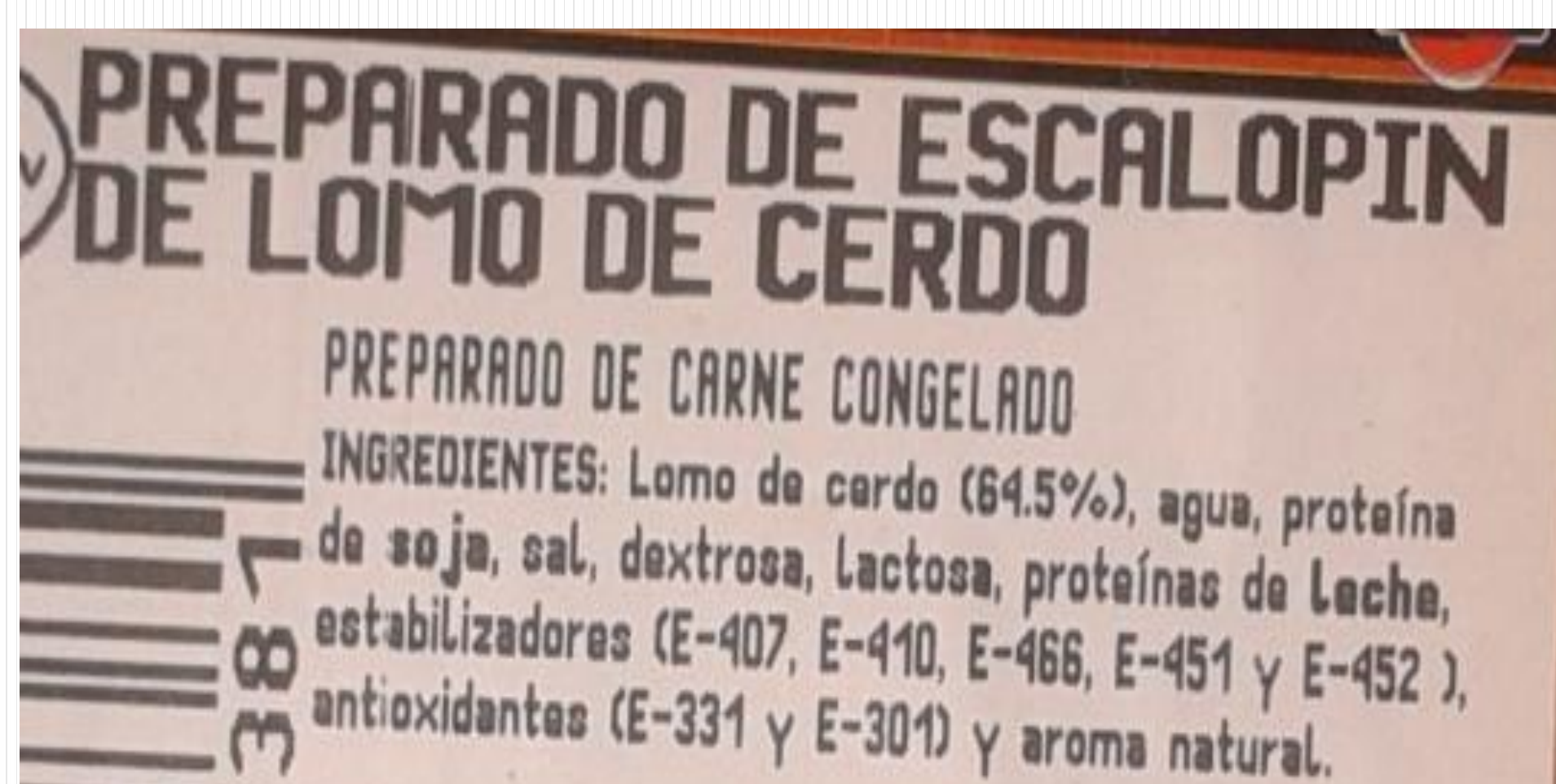
- "Preparados de carne": la carne fresca, incluida la carne que ha sido troceada, a la que se han añadido productos alimenticios, condimentos o aditivos, o que ha sido sometida a transformaciones que no bastan para alterar la estructura interna de la fibra muscular ni, por lo tanto, para eliminar las características de la carne fresca. (Reglamento 853/2004).
- "Marinated": a product must use a marinade that is a mixture in which food is either soaked, massaged, tumbled, or injected in order to improve taste, tenderness, or other sensory attributes, e.g., color or juiciness. (USDA Labeling rules, 2005).

- **Regulations**

- 853/2004 - enhanced meat description
- 1129/2011 - permitted additives in meat
- 601/2014 - permitted additives in enhanced meat and
 - subcategories: fresh meat/enhanced meat/meat products

In UE added water must be labeled if it represents more of the 5% of weight in the final product. It must be labeled as "preparado de ____" (Figure 1), "adobado", "salmuerizado" or "marinado".

Figure 1. "Preparado de" escaolpín de lomo de cerdo"



In USA enhanced meat must be labeled as "injected", "marinated", or similar, always describing the ingredients and the % of water added.

MATERIALS AND METHODS

- **Market research** → research of enhanced meats in different supermarkets in Barcelona and UK
- **Experimental assay** → marinated meat in milk to evaluate the weight increase and tenderness.
 - different meat (chicken/pork)
 - different milk (normal/calcium added)
 - different temperature (environment/fridge)
- **Polls** → 15 polls to evaluate people's knowledge and opinion about enhanced meat.

RESULTS

- **Market research**
 - different species: pork, beef, chicken, turkey
 - some of them are not labeled with the required denominations
 - some of them include nitrates in their formulation (not permitted)
- **Experimental assay**
 - milk with calcium/phosphate added (refrigerated) is better absorbed
 - cutting force increases after the marination in milk
 - parameters should be compared to cooked meat
- **Polls**
 - People think that enhanced meat is: meat with additives, toxic substances, hormones, growth factors...
 - People rarely distinguish fresh meat from enhanced meat
 - They think that meat should be labeled as "enhanced food" or with a similar statement.