



New Healthy Meat Products Containing Vegetables

L.G. Engsig¹, L. Nersting², C. Bejerholm²

¹ Department of Food Science/Sensory Science, Faculty of Science, University of Copenhagen, Copenhagen, Denmark

² Danish Meat Research Institute, Roskilde, Denmark

INTRODUCTION

One major consumer trend is an increased demand for healthier food containing natural ingredients and low fat and salt levels. The meat industry needs to find new ways to meet this demand.

Objective:

- To develop new and healthy meat products containing a considerable quantity of vegetables
- To create new market platforms for meat products e.g. new snack products

MATERIAL AND METHODS

Two spreads were produced. A butternut: 40% pork filet, 50% butternut, carrots and spices and a double pea: 40% pork filet, 40% green pea and split pea and spices. Heat treated pork filet, vegetables and spices were chopped in a bowl chopper to a smooth texture, vacuum packed and pasteurised (butternut) or MA packed 30% CO₂/70%N₂ (double pea). Chemical and shelf life analyses were made. A holistic method was used for consumer tests where the products were associated with emotional responses.



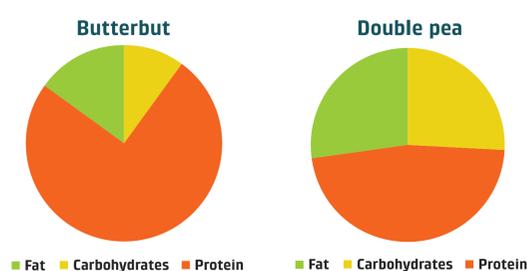
RESULTS

CHEMICAL ANALYSES

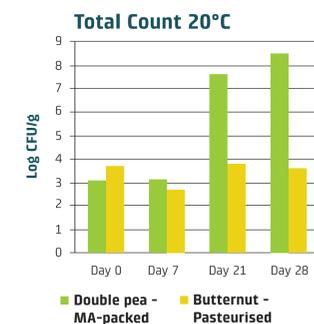
SPREAD	Butternut	Double Pea
	Pasteurised	MAP
Fat %	0.8	3.8
Protein %	11.1	14.8
Carbohydrates* %	2.3	8.5
pH	5.1	5.2
Salt %	1.12	1.09
Water %	80.8	69.4

* Indicates values that are calculated in WinFood 4.0.

CALCULATED ENERGY DISTRIBUTION IN %



MICROBIOLOGICAL SHELF LIFE



CONSUMER TEST

LIKING

Question: "How well do you think the product taste?"



CONCLUSION

- It was possible to develop tasty and healthy new meat products with a high vegetable and protein content and a low fat and salt content
- Consumers in general liked the products and described the double pea as healthy, fresh, natural, trendy, appetizing, rich in protein, and exciting, and the butternut as inviting, surprising, new, boring and strange
- Shelf life of the spreads was 7 days for the MAP and at least 28 days for the pasteurised
- The products can be used as a spread for sandwiches or as a dip for snacks



CONTACT

LISE NERSTING | LNG@DTI.DK | +45 7220 2668