



Visualisation of the composition of fat, protein, starch, and fibres in extruded products

Project aim

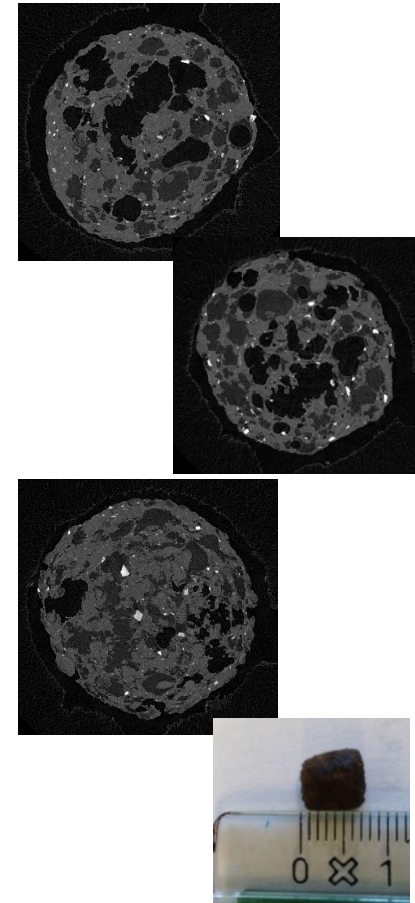
Test of different measuring methods to determine the visual composition of fat, protein, starch and fibers in extruded products.

Results

The following techniques have been tested: Fluorescence microscopy, Raman spectroscopy, CT-scanning and Videometers equipment.

CT-scanning showed the most promising results, where it was possible to map the overall structure of the extruded fish pill.

Especially, the pore size in the fish pills are interesting as the pills are coated with oil after extrusion and the size of the pores determine how well the oils is kept inside the fish pill.





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GOAL:

- 1) To investigate techniques to visualise the composition of extruded products



WHY:

- 1) To gain an understanding of the extrusion process, which is essential in order to product optimization
- 2) To achieve knowledge to in order to optimize the process and secure maximal raw material exploitation



HOW:

- 1) Test different techniques and evaluated them
- 2) Evaluate the potential of the different techniques.



WHO:

Maria Barmar Larsen, Danish Technological Institute (Project leader)
Hanne Tolderlund Rasmussen, Biomar A/S
Jens Michael Carstensen, Videometer A/S

OUTCOME:



- After the project finished work to finish the CT scanning methods have been performed and the methods is now offered other companies.
- DTI and Biomar are preparing proposal for a large project to Innovationsfonden.



BUDGET:
500.000 DKr

FUNDING BODY: InSPIRe demoproject

PROJECT PERIOD: Apr. 2013- Dec. 2013



RELATED TO THE INSPIRE PROJECT:

Pillar III: Improved Food Quality by Controlling Molecular Functionality