



Project Factsheet

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High quality meat-like products – from niche markets to widely accepted meat alternatives

Programme area: Research for SMEs
Status: Ongoing

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Abstract: Several environmental and health-promoting issues substantiate the shift from an animal protein – in particular meat – to a vegetable protein based diet. Although meat analogues have attracted increasing industry and consumer attention, the market for these products is still very small. This is probably due to the fact that commercial available meat analogues – in particular their sensory qualities – do not meet consumer preferences implicating a renunciative and critical position against those products. To obtain a larger market share, the development of meat analogues with superior textural and sensorial quality and concomitantly wide consumer acceptance is a prerequisite. The project LikeMeat aims at the development of meat analogues with excellent, well-accepted texture, juiciness, appearance and aroma based on plant proteins and combinations with appropriate hydrocolloids. Therefore, detailed knowledge about protein aggregation, protein interactions with other components in the recipe and the impact of processing conditions on product quality is required. Another focus will be on odour-active compounds and strategies to adapt the process and the formulation for simulating meat aroma. To improve the shelf-life and ensure the safety of the products, the microbiota of the used raw materials and intermediate products and their degradation kinetics during the production of meat analogues will be analysed. The development of refined and microbiological safe products enables the SMEs to launch first products at short notice. An extensive assessment of consumer preferences and needs will reveal the sensorial drawbacks of currently available meat substitutes and will facilitate the research activities for the development of innovative products with high consumer acceptance but also prosperous marketing strategies.

Keywords: meat analogue, juicy and fibrous texture, consumer opinion, food safety, cooking extrusion, flavour