Abstracts

QUALITY

Quality

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Presentation abstract:

In the presentation we describe a case study on the Abafoods company, founded in 1995, which has been dedicated to the development of organic vegetable beverages extracted from cereals, since 1999. They have thus reached high levels of technology and specific know-how.

As a result, Abafoods company has grown both in its turnover and in its product range, and is constantly ready to face new market challenges .

Closely related to the Abafoods company, we then describe the case of the organic farm La Goccia, founded in 2007 by Abafoods' partners, who combine an in-depth knowledge of organic agriculture with the knowhow of its founding partners. Their sharing of the goals of the company and brands, guarantees the full traceability and direct control of the cereal chain, from the grain to the finished product.

Reliability, quality and food safety have been assured by huge investments in Technology and Structure, performed throughout the company life.

Last but not least, in the presentation we focus on the efforts to measure scientifically Abafoods' greenhouse gas emissions- given that this is one of the most sensitive issues for our consumers. We discuss the use of alternative energies, water saving through heat recovery and reuse an, purification, as well as the reduction of waste production through processing by- products derived from th manufacturing process and using them for animal feed.

Organic Food Processing: A Framework for Concept, Definition and Evaluation from the European Perspective

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Summary: Recently organic food quality was described by principles, aspects and criteria, when the principles from organic agriculture were verified. Different levels for evaluation were suggested. Underlying paradigms and consumer perception of organic food were reviewed against food design, resulting in identifying integral product integrity as the underlying paradigm and a holistic quality view connected to naturalness as consumer perception. When the quality concept was applied on the organic food chain with focus on processing, clear principles and related criteria were missed in order to evaluate methods and technologies. Therefore the goal of the paper is to describe and discuss the topic of organic food processing to make it operational. A conceptual background for organic food processing is given by verifying the underlying paradigms and principles of organic farming and organic food on organic processing. Proposed definition connects organic processing to related systems such as minimal, sustainable and careful processing and describes clear principles and related criteria. Based on food examples, such as milk with different heat treatments, the concept and definitions were verified.

Key words: organic, processing, concept, evaluation

Introduction

Recently organic food quality was described by principles, aspects and criteria, when the principles from organic agriculture were verified. Different levels for evaluation were suggested. Underlying paradigms and consumer perception of organic food were reviewed against food design, resulting in identifying integral product integrity as the underlying paradigm and a holistic quality view connected to naturalness as consumer perception. When the quality concept was applied on the organic food chain with focus on processing, clear principles and related criteria were missed in order to evaluate methods and technologies. Therefore the goal of the paper is to describe and discuss the topic of organic food processing

and in particular the processing methods to make it operational. This is done by transferring the underlying paradigms and principles from organic agriculture and food to processing as one important step in the food chai. The focus is on concept development, definitions and examples for verification. Because the concept of organic processing is developed in the context of related approaches such as careful, minimal processing and ecological responsible management, the results presented here are of general interest for agriculture and food scientist as well as stakeholders.

Method approach

FQH experts elaborated a framework for concept development, definition and evaluation of organic food processing. The work was carried out within FQH with 10-12 experts at three expert workshops (2xKassel/D, Copenhagen/DK) in 2011 and 2012. This paper summarizes the outcome of these meetings. Because the topics are of high relevance for the whole organic sector, the first ideas of this paper were discussed during a workshop at the BIOFACH Expo 2012 among FQH members and other interested stakeholders. The feedback of this consultancy was implemented into the paper. This will be done at BIOFACH Expo 2013 again. In addition a qualitative survey was performed at BIOFACH 2012 among organic stakeholders on their understanding of organic processing related to concepts and criteria. After implementation feedbacks from the IFOAM conference on processing 2012, the new text will be send to stakeholders from farming, processing, retailing, certification and research within the organic food and farming sector via the European Technology Platform TPOrganics (www.tporganics.eu) from March to May 2013. This feedback will also be implemented. Finally, the main topics of the paper will be presented at the second International Conference on Organic Food Quality and Health in Warsaw in June 2013 and discussed among the scientists.

The descriptions and discussions are based on relevant scientific literature, including primary research and reviews, reports, books, dealing with organic food quality issues, IFOAM-Principles and Standards, the EC-Regulation 834/2007 and EC-Regulation 889/2008, as well as personal consultancy with different stakeholders in the organic sector.

Conceptual framework

The conceptual framework will be based on

- » Underlying paradigms in organic agriculture and food as extracted from literature (scientific articles). Identified paradigms: agro-ecology and integral product integrity.
- » History of organic processing from various sources (e.g. reports and books). Identification of underlying principles.
- » Clustering processing methods according to literature and organic standards. Identification of gaps.

Proposed definition and evaluation

The starting definition will come as an extract from various sources (reports, books, standards, articles). It will present clear principles (e.g. health, sustainability, responsibility, care, system approach, field-to-fork approach) and related criteria. The criteria will be described through a multidimensional approach, which connects the principles through measurable parameters. Organic processing will also be defined compared to other concepts as minimal processing and careful processing. Results of a survey among stakeholders at Biofach Expo 2012 show that organic integrity, sustainability and health are important quality criteria. Moreover restriction of technologies in order to improve the organic quality is in favor. A multidimensional approach, as developed for organic food quality in general, may useful to be applied in organic processing in order to select technologies, additives and processing aids.

Examples for verification

Three different products including different methods applied on these products are used in order to verify the proposed definition and evaluation. Fresh apple is related to the concept of minimal processing in connection with the organic standards (regulation). Different heating technologies are compared according to their impact on milk product and process quality. Organic bakery products produced with traditional technology will be compared to such organic products produced by exploiting fully the possibilities of organic regulation. Also in this context the term "true nature" used in EC organic regulation is discussed.

Organic Food Processing and Food Safety

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Summary: To meet consumer expectations and legal requirements, processing of organic food should be "gentle", i. e. maintain the positive characteristics of the raw material as

far as possible. This principle, however, may be in conflict with food safety requirements. In particular, there are limitations to reduction of the intensity of heat treatment of low-acid