



Increasing sustainability and quality of organic produce

SusOrganic



Aim of the project:

Development of quality standards and optimised processing methods for organic produce

Introduction

SusOrganic will develop technical solutions, standard operation procedures and guidelines leading to increased product quality that is reliably achieved whilst reducing resource consumption.

What: Technical solutions and guidelines to improve product quality

Why: Consumer awareness and legal standards require high quality and sustainability for successful marketing

Where: throughout the EU

Background

Organic food is expected to be of high quality and produced sustainably regardless of its degree of processing. EC legislation defines organically grown food as high quality food which has to be handled carefully throughout the whole life cycle, but explicit rules only exist for actual agricultural production and additives used in processed food. There is a lack of guidelines for food processing conditions for organic raw materials, along with the environmental footprint of the product.

Main activities

- ▶ Development of quality standards and improved product quality
- ▶ Processing guidelines and optimised processes for higher product quality and energy efficiency
- ▶ Environmental impact (LCA) and economic (LCCA) analysis
- ▶ Tests (drying/cooling) using the process settings commonly used
- ▶ Optimisation of process settings and control
- ▶ Development of on-line non-invasive systems based on optical properties of food matrices
- ▶ Establishment of a sound database
- ▶ Stakeholder engagement



Expected societal benefits of the project

Seminars and training material for producers of organic food materials and products and the food industries as a whole in the partner countries on improved processing and handling of raw materials and processed produce, which then can be further disseminated throughout the EU, will be held and provided. The producers will be provided with baselines for the environmental impact of their production. Moreover, transferability to other products is expected to be high.

The approach and study developed can be easily applied to existing devices as retrofit; new built devices will be simple and affordable even to very small participants in the market, and therefore contribute to the increase of their livelihoods (lower costs, better environmental performance).

Expected results and impacts

The main results expected for the producers are: quality standards for organic produce, processing guidelines as well as significant increase in retention of valuable components in the products, while reducing time and costs of production. Therefore, increase of profit and competitiveness, through the development of processing standards and control systems for drying and cooling/freezing can be achieved. Furthermore, affordable new technology, reduction of raw material losses \rightarrow 10%, reduction of environmental impact, e.g. energy demand reduction of at least 30% (compared to status quo) and 50-80% with heat pumps as well as accessible database for the participants in the market containing crucial information for the conduction of LCA and LCCA will be pursued. Seminars and training material will also be conducted and provided.

Expected long-term impacts

The outcomes contribute to food security and safety, and resource efficiency in food manufacturing. Producers of organic produce will be assisted to improve the sustainability product quality of their products, and thus, increase their competitiveness.



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How to reach target groups

At least one training pack for on-farm and off-farm producers of dried and cooled/frozen fruit, vegetable, meat and fish products in each country will be held. Workshops will be carried out on the main aspects of changes in the products throughout processing and their causes.



Further information

This project is funded via the ERA-net CORE Organic Plus, which is a network of 20 countries on initiating transnational research projects in the area of organic food and farming systems. In 2014, CORE Organic Plus selected SusOrganic and 10 other projects.

Read more at the CORE Organic website:

<http://www.coreorganic.org/> and find publications from the project at:

<http://coreorganicplus.org/research-projects/susorganic/>

and at: <http://orgprints.org/view/projects/SusOrganic.html>