# 3rd Fruit & Vegetable Processing Symposium

**24-25 November 2020 – Web conference**

# Book of abstracts - Oral

**Frédéric CARLIN – Carine LE BOURVELLEC**

**Stéphane GEORGE**

**Dominique PALLET – Pierre BRAT**

## 3 - Food systems and sustainability of F&V processing

# KS3 - Organic fruit and vegetables processing: development and innovation in compliance with the organic principles

Flavio PAOLETTI* and Antonio RAFFO

*Council for agricultural research and economics – CREA, Research Centre for Food and Nutrition, Via Ardeatina 546, Rome, Italy*

*Correspondence: flavio.paoletti@crea.gov.it

Increasing awareness about harmful effects due to the consumption of synthetic additives and pesticide residues, and ethical issues are the drivers that boosted demand for organic food across the globe. Consumers perceive organic food as healthier than conventional food, because no synthetic chemicals are used in the production process; moreover, they expect that organic food are of high quality and produced adopting ethical and socially responsible behaviours [1]. Organic agriculture is based on four ethical principles (health, fairness, care, and environment) that are the roots from which organic agriculture grows, develops, and contributes to the transformation of food systems towards sustainability.

As the organic food sector continues to expand, the variety and complexity of food on the market is also rapidly increasing, particularly for processed foods. Therefore, the organic food industry needs to develop and innovate to keep the pace with the growing market, while meeting consumer expectations towards organic food and complying with the organic production principles.
However, some barriers exist that can slow down development and technological innovation in the organic food industry often related to vagueness in regulations.
The European organic regulation 834/2007 still in force, only sets a legal frame with general principles for organic food processing. Mandatory standards for the processing of organic food are lacking, as well as indications that can represent a guide for the processors in the selection of appropriate technologies and innovations in line with the organic principles.

The CORE Organic Cofund project "Code of Practice for organic food processing - ProOrg" (https://www.proorgproject.com) will be presented. Its objective is to provide organic food processors with a set of strategies and tools, which can help them to make the best choice for careful processing methods, while addressing the organic principles, high food quality, low environmental impact and high degree of consumer acceptance. A framework to assess organic food quality (process-oriented and product-oriented quality) [2] as affected by processing technologies is under development. Consumer preferences and acceptance of processing technologies is also studied. Processed fruit and vegetables are case studies in the project. The example of fresh-cut organic vegetable will be presented with a focus on water use issue and alternative disinfection methods to chlorine and their effects on product safety, quality and shelf life. Research needs and gaps will be discussed.

Keywords: processed organic fruit and vegetables, organic principles, innovation

Acknowledgements:
The authors acknowledge the financial support for this project provided by transnational funding bodies, being partners of the H2020 ERA-net project, CORE Organic Cofund, and the cofund from the European Commission.

References:
[1] Schleenbecker R., Hamm U. (2013) Appetite, 71, 420-429.
[2] Kahl J., Baars T. *et al.* (2011) Journal of the Science of Food and Agriculture, 92, 2760-2765.