



PROFOOD-IV acronym for “Innovative products and processes for the fresh-cut fruit and vegetable supply chain” is the research project financed by MIUR with Code ARS01_00755 under the PON Research and Innovation 2014-2020 funds.

The project

The project, launched in November 2021 and lasting 30 months, aims to study innovative solutions with low environmental impact aimed at improving the safety and quality of "IV G" products (in particular salads) and extending their life. commercial. In this way, both the need to strengthen the relationship with consumers by offering a healthier product and to obtain a technological advantage necessary to strengthen the market position of partner companies is satisfied.

The project presents a supply chain approach: it intends to respond to the innovation needs of various links in the fresh-cut supply chain in the belief that only with an integrated intervention is it possible to determine a significant impact on the ability to compete and on the problems affecting the sector.

The project therefore aims to solve common technical problems in the agricultural (field) phase and in the various product conditioning steps.

The objectives

The innovation objectives for the different stages of the supply chain are as follows:

Field Phase

Soil disinfestation: replacement of plant protection products used in derogation currently used in derogation with new molecules and extracts of natural origin associated with innovative biodegradable systems with controlled release (SBRC) and vegetable matrices with a high content of molecules with antibacterial antifungal activity . This solution could, in the medium / long-term, constitute an excellent system to make the production of IVG totally “organic”. The study of Benfluralin and Propizamide-based systems is also envisaged, as part of the project, currently granted in derogation due to the lack of in-depth studies, which could act as a bridge towards the transition to "Bio".

Enhancement Phase

Sanitation: elimination of the use of chlorine in the washing water of salads in favor of a more biological system of abatement of microorganisms, with an improvement in the quality and safety of packaged leafy vegetables.

Marketing phase

Shelf-life increase: development of two solutions that will intervene in the pre-packaging phase and on the packaging itself in order to obtain a reduction in bacterial proliferation and an increase in the duration of the product.

ProFood-IV will therefore make it possible to identify and develop "ready to use" technological solutions designed to overcome the main criticalities of IVG's current horticultural productions from the point of view of product quality, environmental protection and profitability.

Since this is a project with a strong entrepreneurial imprinting, the results of which are destined to be immediately usable within the participating supply chains, the outputs obtained will be analyzed:

- from a technical-economic point of view in order to identify the conditions for obtaining the technical-economic benefits expected from the project for partner companies
- from an environmental point of view through a Life Cycle Assessment aimed at verifying how business processes can improve their impact on the environment thanks to the results of the research.

Partners

1. O.P. Sole e Rugiada Sacpa (capofila)
2. La Linea Verde società agricola Spa
3. Ortomad Società agricola Srl
4. O.P. Mioorto Srl Agricola
5. OP Rago soc. coop. agricola
6. Agricoop soc. coop. agricola
7. Consorzio interuniversitario per lo sviluppo dei sistemi a grande interfase

Soggetti attuatori:

Università degli studi del Molise

Università degli studi di Napoli

Università degli studi di Bari

8. Università degli studi di Siena

Financial support

O.P. Sole e Rugiada Sacpa participates in the project and is the recipient of a contribution of € 76,676.52