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ABSTRACT BOOK

*New advances from PRIMA projects
for improving Mediterranean
Agro-Food value chains*

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Instituto Nacional de
Investigação Agrária e
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Abstract Book

**New advances from PRIMA projects for
Improving Mediterranean Agro-Food Value Chains**
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Developing a Sustainable and Functionalized Pumpkin Fruit Pulp Formulation Using Biobased Preservatives: The PulpIng Project

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The PulpIng project is committed to advancing the circular economy and promoting sustainable agro-industrial practices. To achieve this goal, the project aims to develop new pumpkin fruit pulp formulations functionalized with natural preservative extracts from pumpkin by-products. The seeds, peels, and fibers from different pumpkin genotypes cultivated in five different countries were used to obtain extracts with preservative properties. These extracts showed great antioxidant and antimicrobial capacity, as well as a diversified phenolic compounds profile. The peels proved to be the most promising by-product, being thus selected to optimize the extraction by RSM, to reach the most efficient conditions leading to preservative compounds-rich extracts. In the next step, the extracts will be incorporated into the new pulp formulations, which quality will be assessed during shelf-life. Waste and wastewater management will also be addressed. By pursuing these goals, the PulpIng project ambitions innovation and sustainability within the agro-industrial sector.

Key words: bio-based preservatives, pumpkin byproducts, process optimization, sustainability

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