



The PRIMA programme is supported under Horizon 2020, the European Union's Framework Programme for Research and Innovation



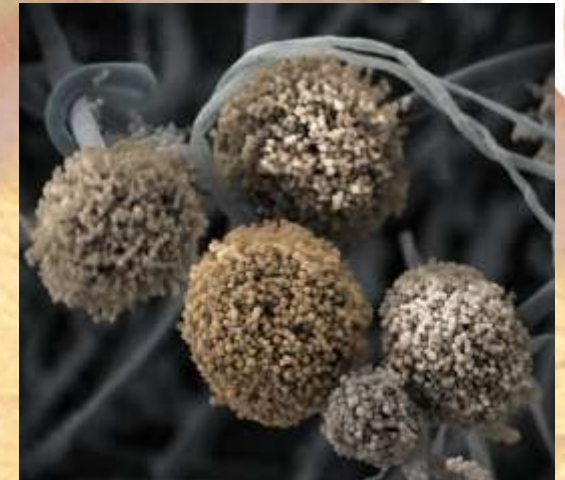
Smart and innovative packaging, post-harvest rot management and shipping of organic citrus fruit

BiOrangePack

Introduction

Citrus fruits are one of the most cultivated crops in the world. Its production and world export has grown steadily during the last decades; therefore, the quality and safety standards of citrus fruits are essential.

One of the main causes of postharvest losses and reduced shelf life of citrus fruits are fungus.



Partners



1250000€ TOTAL PROJECT BUDGET
14 CONSORTIUM PARTNERS
6 EURO-MEDITERRANEAN COUNTRIES



OP
Cosentino



واديّة أعوان المرکز الفنی للقوارص

Objectives




The overall objective of the project is to increase the efficiency, sustainability and competitiveness of the post-farming processing chain of organic citrus fruit, by intervening in points of weakness and the unresolved problems of this supply chain.

- I) Reduction of losses caused by post-harvest rots
- II) Raising of the quality standards of fresh fruits and juice by using molecular diagnostics
- III) Extension of the shelf-life of fresh fruit using biodegradable active biocoating and smart packaging
- IV) Application of smart technologies to reduce shipping times
- V) Minimizing the waste of the industrial transformation recycling and the citrus pulp in accordance with the principles of circular economy




Overall approach and methodology

BiOrangePack			Implementation Month																																					
No.	Title	Leader	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
WP1	Biocide substances and innovative diagnostics	UNITU																																						
T1.1	Development of molecular diagnostic kits for rapid and specific detection of major quarantine packing houses fungal pathogens in citrus fruit stocks	AGDIA																																						
T1.2	Development of molecular methods to detect mycotoxins and characterize myco	UNiValencia																																						
T1.3	Test of the antifungal activity of ecological non-toxic substances	ENSA																																						
T1.4	Test of the antifungal activity of bioproducts	UNITU																																						
WP2	Green-Smart packaging	AIMPLAS																																						
T2.1	Low-permeability Protective Films coated with Biocide Substances	CSGI																																						
T2.2	Packaging from Citrus Waste for Circular Economy	AIMPLAS																																						
T2.3	Regulation and safety analysis	AIMPLAS																																						
WP3	ICT-based logistic	UNICT																																						
T3.1	Citrus e-nose. Prototypal sensing platform to monitor the onset of post-harvest	UNICT																																						
T3.2	Citrus-navigator. Decision support system to optimize fresh citrus fruit shipment	UNICT																																						
T3.3	Citrus-pack. Test of a new packaging for citrus shipping	CSFNMS																																						
WP4	Dissemination and Communication. Exploitation and IPR	CSFNMS																																						
T4.1	Dissemination activities and channels	CSFNMS																																						
T4.2	Exploitation activities	DECCO																																						
T4.3	Communication activities	CSFNMS																																						
T4.4	Technology seminars, training & workshops	UniValencia																																						
WP5	Project Management	UNICT																																						
T5.1	Management of the Resources	UNICT																																						
T5.2	Definition of risk indicators & risk management	UNICT																																						
T5.3	Communication with the European Commission	UNICT																																						

 Work-package duration
 Task activities
 Task continuous updating and monitoring

Deliverable
 Milestone

D1.1

WP1: Integrated & sustainable management strategy to prevent fungal infections and presence of mycotoxins in organic citrus fruit and juice.

WP2: Green-Smart packaging from citrus waste for the circular bio-economy.



WP3: Improvement of the logistics of fresh citrus fruit on the Mediterranean market by the use of Smart Technologies.

**WP4: Dissemination and
Communication.
Exploitation, IPR, trainings.**

WP5: Project management





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THANKS



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