

II FoodWaStop Conference



CA22134

Sustainable Network for agrofood loss and waste prevention, management, quantification and valorisation

March 4-5th 2025

Rectorate of the University of Córdoba, Spain

PROGRAMME

Abstract proceedings



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FoodWaStop COST ACTION OVERVIEW

The COST CA22134 **FoodWaStop** – “Sustainable Network for agrofood loss and waste (FLW) prevention, management, quantification and valorisation - is a scientific cooperation network” funded by COST ACTION programme that addresses the following challenges and aims to: (i) build an interdisciplinary and multi-actor European Network that will also connect with non-EU Mediterranean countries, to promote knowledge on FLW beyond the state of the art; (ii) determine incidence of FLW in the critical points of the fruit and vegetable value chain; (iii) foster technological innovations and sustainable management strategies to reduce and prevent FLW; and (iv) valorise agrofood waste to promote a circular bio-economy.

The experience of the Coordinators and Participants gained from other related projects (e.g., PRIMA, H2020), the background from diverse EU and extra-EU countries, and the involvement of stakeholders and industry partners will contribute to increase awareness of this problem, to determine its incidence, to seek strategies for its management through exploitation of the potential of innovative technologies, and to define good practices to prevent FLW.

The **FoodWaStop** Network provides benefits to various stakeholders and end users, including all actors in the agrofood value chain, from farmers (Farm) to consumers (Fork). Moreover, **FoodWaStop** creates a knowledge platform that will promote innovation, deliver guidelines, and favour dialogue with policymakers, to focus their attention on the social and economic implications of FLW.

Conference Venue



[Rectorate of University of Cordoba](#)



Programme

3rd March 2025

20:00 – 22:00 h

Welcome Reception at [Caballerizas Reales](#)



4th March 2025

08:30 – 09:00 h

Registration of participants and poster display

09:00 – 09:30 h

Opening and welcome address

Prof. María José Polo Gómez. Vice-rector for Scientific Policy.
Prof. Manuel Hidalgo Prieto. Dean of the Faculty of Veterinary.
Prof. Fernando Pérez-Rodríguez. Local organizer and COST Action vice chair.
Prof. Gianfranco Romanazzi. COST Action chair.

COST Action “Sustainable Network for agrofood loss and waste prevention, management, quantification and valorisation, FoodWaStop”

Romanazzi, G., Moumni, M. Marche Polytechnic University, Italy.

09:30 – 11:00 h

Oral communications on WG 1. Prevention of food loss and food waste

Chairs: George Karaoglanidis & Alessandra Di Francesco

O1.1. Impact of *Xylella fastidiosa* on Mediterranean area: Searching for new management strategies

Landa, B. CSIC-Instituto de Agricultura Sostenible (IAS), Spain.

O1.2. Is food packaging part of the solution or part of the problem?

Kanaki, C., Thomaidis, N. National & Kapodistrian University of Athens, Greece.*

O1.3. Measuring and Mitigating Food Loss and Waste: A Comprehensive Review on Quantification Methods and Preventative Strategies

Berisha, K.; Thaçi, L. Hungarian University of Agriculture and Life Sciences, Hungary.*

O1.4. Leveraging Citizen Science to Unchain Food Waste from GDP and Population Growth through Ecolabel Innovations in Food Packaging Industry

Kitanovski, V., Popovska, O., Demiri, S., Trifunov, Z., Lutovska, M., Kjosevski, S. University Mother Teresa Skopje, Macedonia.*

O1.5. Chitosan-graft-Pomegranate Extract Hydrogel as An Antibacterial and Antioxidant Pad for Shelf Life Extension in Food Packaging

Ertas, Y.N., Erciyes University, Turkey.

O1.6. The molecular basis of superficial scald development in apple fruit using a multi-omics and functional approaches

Skodra, C., Karagiannis, E., Michailidis, M., Samiotaki, M., Ganopoulos, I., Tanou, G., Bazakos, C., Dalakouras, A., Molassiotis, A. Aristotle University of Thessaloniki, Greece.*

11:00 – 11:30 h

Coffee break and poster session

11:30 – 13:00 h

Oral communications on WG 2. Agrofood loss and waste management

Chairs: Slaven Zjalic & Lluís Palou

O2.1. Utilization of By-products from the Cereal Milling Industry for Dietary Supplement Production

Dziedzic, K., Poznań University of Life Science, Poland*

O2.2. The characterization of wastewaters generated in Serbian medium-sized wineries

Miljić, U., Trivunović, Z., Puškaš, V., Dodić, S., Bajić, S., Grahovac, J., Dodić, J. University of Novi Sad, Serbia.*

O2.3. Management of postharvest fruit rot by cold storage combined with biological antifungal compounds

Ben Amara, M.*, Allagui, M.B. University of Carthage, Tunisia.

O2.4. Experience of the Tunisian partner in the PRIMA 'STOP MED WASTE' project

Allagui, M.B.*, Ben Amara, M. University of Carthage, Tunisia.

Oral communications on WG 3. Quantification of food loss and food waste

Chairs: Luca Falasconi & Pervin Kinay-Teksur

O3.1. Understanding Household Food Waste: A Global Survey on Perceptions, Quantification, and Key Drivers

Falasconi, L. University of Bologna, Italy.

O3.2. Food Waste in Czech Households: How to Change Consumer Behavior?

Kubíčková, L. Mendel University in Brno, Czech Republic.

13:00 – 14:00 h

Lunch and poster session

14.00 – 15:15 h

Oral communications on WG 4. Valorisation of agrofood waste and a circular bio-economy (I)

Chairs: Jessica Girardi & Sarah Milliken

O4.1. Grape Pomace Valorisation: Development of a holistic biorefining approach

Kachrimanidou, V.*, Rincon, E., Espinosa, E., Kopsahelis, N. Ionian University, Greece.

O4.2. Properties of Oleogels from Upcycled Oils and Extra Virgin Olive Oil

Lin, Z.*, Cabral, E.M., Grasso S. University College Dublin, Ireland.

O4.3. From Waste to Wellness: Investigating Kiwiberry Leaves as a Nutraceutical Ingredient through In Vitro and In Vivo Studies

Silva, A.M., Almeida A., Dall'acqua, S., Sarmento B., Costa P.C., Delerue-Matos, C., Rodrigues F.* Polytechnic of Porto, Portugal.

O4.4. Valorization of the viticulture waste to obtain polyphenol-rich extracts that modulate gut cardiovascular dysbiosis

Dinu, L-D.*, Cojocaru, G., Vamanu, E., Antoce, A.O. University of Agricultural Sciences and Veterinary Medicine of Bucharest, Romania.

O4.5. Valorization of Hemp Seed Meal: Nutritional Characterization and Application in Breadmaking

Dapčević-Hadnađev, T.*, Hadnađev, M., Pojić M. Institute of Food Technology, Serbia.

15:15 – 15:45 h

Coffee break and poster session

15:45 – 17:00 h

Oral communications on WG 4. Valorisation of agrofood waste and a circular bio-economy (II)

Chairs: Jessica Girardi & Sarah Milliken

O4.6. Valorization of grape pomace: Novel and sustainable anthocyanin extraction techniques for the development of active packaging systems

Henares, M.*, Rincón, E., Espinosa, E. University of Córdoba, Spain.

O4.7. Exploring High-Value Applications of Solid-State Fermented Olive Leaves

Sar T.*, Pyrka I., Taherzadeh, M.J., Nenadis, N., Mantzouridou, F.T. University of Borås, Sweden.

O4.8. Upcycled Pomegranate By-Products for Juice Bioactive Enrichment: A Green Extraction Approach

Aydin, S., Tontul, İ.*, Türker, S. Necmettin Erbakan University, Turkey.

O4.9. Stone and berry fruits as alternative sources of pectin

Cybulska, J.*, Cruz-Rubio, J.M., Zdunek, A. Institute of Agrophysics Polish Academy of Sciences, Poland.

O4.10. Application of sustainable extraction and formulation principles in development of tomato waste derived nutraceuticals (ExtracTom-App)

Radić, K.*, Galić, E., Vinković, T., Golub, N., Petković, T., Vitali, Čepo, D. University of Zagreb, Croatia.

18:00 – 19:00 h

Guided visit to the [Mosque-Cathedral](#)



20:15 – 22:00 h

Social Dinner ([Bodegas Campos](#))



5th March 2025

08:30 – 09:00 h	Registration of participants and poster display
09:00 – 10:30 h	<p>Oral communications on WG 5. Cross-cutting strategies and smart systems for food management</p> <p><u>Chairs: Marwa Moumni & Fernando Pérez-Rodríguez</u></p> <p><u>O5.1. Reduction of fruit losses by sensing technology for early detection of postharvest alterations and quality</u> <i>Amodio, M.L., Russo, L., Fatchurrhman, D., Colelli G.* Università di Foggia, Italy.</i></p> <p><u>O5.2. Electronic nose for monitoring volatile organic compounds</u> <i>Huynh, T.-P. Åbo Akademi University; Finland.</i></p> <p><u>O5.3. Assessing the potential of digital twins in food supply chains to reduce food loss and waste</u> <i>Emel, Y. Tarsus University, Turkey.</i></p> <p><u>O5.4. Applying systems thinking on reduction of food loss and waste</u> <i>Wang, Y.*, Wang, K. University of Bedfordshire, UK.</i></p> <p>Oral communication on WG 6. Networking and dissemination, communication and transfer of knowledge</p> <p><u>Chairs: Gianfranco Romanazzi & Kata Ludman-Mihály</u></p> <p><u>O6.1. Innovative Strategies for Agrofood Loss and Waste Reduction: Insights from PRIMA Agrofood Funded Projects (2018–2024)</u> <i>Wageih, M. PRIMA Secretariate.</i></p> <p><u>O6.2. Foodwaste discourse-current stage and future perspectives</u> <i>Bielenia-Grajewska, M. University of Gdansk, Poland.</i></p>
10:30 – 11:00 h	Coffee break and poster session
11:00 – 13:00 h	Parallel WG meetings
13:00 – 14:00 h	Lunch and poster session
14:00 – 15:30 h	General Discussion
15:30 – 16:00 h	Coffee break
16:00 – 17:30 h	COST Management Committee meeting (hybrid)
17:30 h	Closure of the meeting

Contact e-mails

COST chair: Gianfranco Romanazzi. g.romanazzi@staff.univpm.it

COST vice-chair: Fernando Pérez-Rodríguez. fernando.perez@uco.es

Websites and social media

COST Action social



Conference website



<https://www.foodwastop.eu/>



Posters

WG 1. Prevention of food loss and food waste

- P1.1. Understanding Food Waste Management Practices and Consumer Perspectives in Albania
- P1.2. Potentiometry with Ion-Selective Electrodes as a Cheap and Useful Analytical Technique for Food Quality Control
- P1.3. Determination of trace amounts of titanium in nettle as a plant food material as food quality monitoring
- P1.4. Functional properties and antifungal activity of wild radish (*Raphanus raphanistrum* L.)
- P1.5. Impacts of Food losses on the Nutrition of the Population
- P1.6. Evaluation of soil solarization on fungal soilborne pathogens' populations, lettuce plant growth and the soil bacterial community
- P1.7. Systematic Analysis of Food Waste Drivers in Canteens: Development of a Monitoring System for Leftovers
- P1.8. New Scenarios for the Application of Controlled Atmosphere Storage
- P1.9. Superomniphobic Coatings for Food Packaging Applications: Minimizing Waste Inside the Food Containers
- P1.10. Action on post-harvest losses (PHL) reduction in Algeria
- P1.11. Valorization of cold stored Tunisian pomegranate as ready-to-eat arils
- P1.12. Addressing food waste in Serbia: challenges, strategies, and sustainable solutions
- P1.13 Investigation of the antifungal activity of natural compounds against *Botrytis cinerea* on fresh table grapes

WG 2. Agrofood loss and waste management

- P2.1. The Use of Whey for Other products
- P2.2. Disposal and Utilization of Soybeans of Different Varieties for Biofuel Production and Animal Feeding
- P2.3. Influence of conduction drying on chemical properties of coffee beans and sustainable disposal of the residues
- P2.4. Biochar derived from biological waste disposal enhances arbuscular mycorrhizal fungi (AMF) associations in grapevines
- P2.5. Valorization of Sunflower Cultivated in Serbia: Enhancing Agrofood Waste Management and Promoting Circular Bioeconomy
- P2.6. Yeasts Volatile Organic Compounds (VOCs) as Potential Growth Enhancers and Molds Biocontrol Agents of Mushrooms
- P2.7. Global Biogas Industry Development: Identifying Key Influencing Factors
- P2.8. Identification of a specific mechanism of herbicidal action against parasitic broomrapes on root extracts of lambsquarter (*Chenopodium album*)
- P2.9. Encapsulation of a polyphenol rich byproduct of olive oil
- P2.10. Influence of feed composition on the characteristics of sheep's and goat's milk
- P2.11. Broccoli Byproduct Extracts Attenuate the Expression of UVB-Induced Proinflammatory Cytokines in HaCaT Keratinocytes
- P2.12. Recovery of bioactive compounds from red grape pomace
- P2.13. Polyphenol release from wild thyme dust extract in simulated gastrointestinal fluids
- P2.14. Protein extraction from *Daucus carota* L. root peel: optimization of extraction solvent and procedure
- P2.15. Harnessing Agri-Food Waste: Plant Leaf Extracts as Natural Agents Against Antibiotic Resistance
- P2.16. Minimizing Heavy Metal Contamination in Seafood through Aquaponics: A Sustainable Solution for Food Security

WG 3. Quantification of food loss and food waste

- P3.1. Fresh Produce Waste in Retail: Quantifying Losses and Identifying Drivers
- P3.2. Food Waste Assessment in Hungary
- P3.3. Toward Consistent Food Waste Reporting in the EU: Analyzing Flows Across Food Supply Chain Stages
- P3.4. Antioxidant Activity and Bioactive Compound Content of Bee Bread Waste from Bingöl, Türkiye
- P3.5. The Food Production, Energy Supply and Environment ecosystems disruption due to the Russian war in Ukraine: challenges and future development scenarios
- P3.6. Methodology for Food Loss Quantification (FOLOU Project)

WG 4. Valorisation of agrofood waste and a circular bio-economy

- P4.1. Valorization of Phenolic Compounds Recovered from Olive Oil Byproducts and their Potential Use in Food Model Systems
- P4.2. Insects on the plate: Assessing the sustainability of yellow mealworm proteins in food systems
- P4.3. Investigation of the sugar profile of samples generated during in vitro digestion simulation of dietary carbohydrates using the HILIC-RID method
- P4.4. Effects of apple cider vinegar extracts on carbohydrate digestion
- P4.5. Recycling Waste Cooking Oil a Successful Way to Sustainability-Transformation of Waste Cooking Oil into Eco-friendly Product
- P4.6. Effect of encapsulation wall material on aroma retention of citrus pomace
- P4.7. Antioxidant Capacity of Orange and Lemon Peel Extracts and Their Use in Biosynthesis of Silver Nanoparticles
- P4.8. Developing a Sustainable Milk-Sour Dessert with Pomegranate Seeds Flour: Quantifying and Valorizing Food Waste
- P4.9. Food By-Products Valorisation: Nutritional Value and Consumer Acceptance of Wheat Cookies Enriched with Pumpkin Peel Powder
- P4.10. Effect Of Fruit Waste Substrate on Antioxidant Profile in the Fermentation Process by *S. johnsonii*
- P4.11. Biorefining Hemp Herb Processing By-Products Into Value Added Functional Food Ingredients by Consecutive Supercritical CO₂ and Pressurized Liquid Extractions
- P4.12. Biorefining of Under-investigated Botanicals for Nutraceutical and Functional Food Applications
- P4.13. Sustainable Green Synthesis of Silver Nanoparticles from Fermented *Origanum vulgare* L. Extract and Their Antimicrobial, Antioxidant Activity and Phytochemical Composition

- P4.14. Argan by-products protein and fiber contents as potential food and feed Source
- P4.15. Present state and future of management of biodegradable waste in Municipality of Ohrid (N. Macedonia) - Approaching to EU regulatives
- P4.16. Eco-Friendly Extraction Method for Recovering Bioactive Compounds from Plant-Based Waste
- P4.17. Sustainable Valorization of Raspberry Pomace Using Biocompatible Ionic Liquids
- P4.18. Transforming Dragon Fruit Peel into High-Value Bio-Based Food Packaging Solutions: A Cascade Biorefinery Approach for a Circular Bioeconomy
- P4.19. Valorization of Potato Peel Waste for Biodegradable Food Packaging Materials Using Deep Eutectic Solvents
- P4.20. Development of a Coffee Pulp Infusion as A Strategy for Recovery After Moderate Physical Exercise in a Healthy Population
- P4.21. Sustainable extraction of arabinose- and xylose- based oligosaccharides from beetroot by-products through innovative non-thermal technologies
- P4.22. Eco-sustainable Valorization of the Coffee Pulp through the Zero-Waste Strategy
- P4.23. Sustainable Extraction of Truffle Bioactive Compounds Using PEF and ASE for Circular Bio-Economy Applications
- P4.24. CoffeeMinds: Integrating Data Science in the Sustainable Valorization of Coffee By-Products as Neuromodulatory Ingredients
- P4.25. Ultrasound-Assisted Extraction of Phenolic Compounds from Sunflower Seed Shells Using Natural Deep Eutectic Solvents
- P4.26. Enhancing the Extraction of Phenolic Compounds from Spent Coffee Grounds Using Cold Atmospheric Plasma
- P4.27. Maximizing Onion Peels Value: Strategies for a Circular Bioeconomy
- P4.28. Magnetically Modified Biological Materials for Dye Removal
- P4.29. Sustainable valorization of fruits by-products towards the development of nutraceuticals and functional foods
- P4.30. Multipurpose valorisation possibilities of apple pomace: an application in functional bakery products.
- P4.31. Effects of frass in growth and weed occurrence in oregano (*Oreganum hireochealium* L.)
- P4.32. Food Waste as a Result of Food Product Marking: A Kosovo Perspective
- P4.33. Argan Proteins in Press Cakes for Food Applications
- P4.34. Creating Minimum Viable Products Using Biowaste Transformation Methods
- P4.35. Consumer Willingness to Pay for Bio-Waste Products: The Case of Hazelnut Chips
- P4.36. Brewers' Spent Grains Upcycling in Foodstuffs
- P4.37. Agro-Food Waste as a Source of Polysaccharides: Tailored Extraction and Structural Characterization
- P4.38. Rice Straw as a Circular Economy Opportunity for a Better Future
- P4.39. (Poly)phenols and Dietary Fiber in Coffee Husk: Macromolecular Interaction and Bioactivity
- P4.40. Sustainable Active Packaging from Pomegranate: Development and Application of PCL Films for Apple Preservation
- P4.41. Liquid Waste Streams from the Food Industry Treated Through Non Thermal Atmospheric Plasma as a Novel Product to Foster Seed Germination
- P4.42. Transforming Food Processing Byproducts into Sustainable Bioplastics and their Properties
- P4.43. Bioprospecting Microbial Diversity in Avocado Crop Compartments Using Amplicon and Shotgun Sequencing for Lignocellulosic Biomass Valorisation
- P4.44. Advancing Food By-Product Valorization: Membrane Technologies for Sustainable Protein Recovery
- P4.45. Microalgae Cultivation Using Enzymatically Hydrolyzed Stale Bread: A Sustainable Biorefinery Approach for Circular Bioeconomy
- P4.46. From Valorization to Zero-Waste: Advancing Circular Bio-Economy in Agri-Food Systems
- P4.47. Edible Films and Coatings: Enhancing Food Preservation and Waste Valorization through Bioactive Compounds Encapsulation
- P4.48. A Policy Coherence Analysis of the Food Use and Waste Hierarchy
- P4.49. Thermoformed Fiber-Polyethylene Biocomposites: Sustainable Packaging Solutions for Cherry Tomatoes
- P4.50. Closed-cycle bioactive substance farm model – sea buckthorn farm case study
- P4.51. Antioxidant Properties and Anti-Fungal Activity of Citrus Peel Extracts
- P4.52. Presentation of the QuaReVALentejo27 project
- P4.53. Use of agricultural by-products from mustard varieties as a dietary source of trace elements and bioactive compounds
- P4.54. From Byproduct to Benefit: Valorizing Oat Bran as a Fat Replacer in Cookies

WG 5. Cross-cutting strategies and smart systems for food management

- P5.1. Effect of Encapsulation Wall Material on Aroma Retention of Citrus Pomace
- P5.2. Design of an Innovative Responsive Package Based on Biomass to Improve the Safety and Extend the Shelf Life of a Minimally Processed Fruit Salad
- P5.3. The production of new biodegradable materials based on polyhydroxyalkanolates

WG 6. Networking and dissemination, communication and transfer of knowledge

- P6.1. Reducing Food Loss and Waste in the French Agrofood Sector: Challenges and Innovations
- P6.2. A Comprehensive Approach for Enhancing Knowledge and Skills Among Farmers to Limit Agrifood Loss and Waste
- P6.3. Foodwaste Discourse-Current Stage and Future Perspectives
- P6.4. Bringing knowledge and consensus to prevent and reduce food loss at the primary production stage

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