

AGRIFOODPLAST

INTERNATIONAL CONFERENCE ON MICRO AND
NANO-PLASTICS IN THE AGRI-FOOD CHAIN



UNIVERSITÀ
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Università
di Catania

<https://www.agrifoodplast.eu>

Faculty of Agriculture, Food and Environmental Sciences

Università Cattolica del Sacro Cuore, Piacenza, Italy

10-12 September 2023

Conference abstract

Plastic materials are in most cases known for their high resistance to degradation processes, leading to their accumulation in the environment. Physical and biological agents can disaggregate plastics and bioplastics into micro- and nano-plastics, which pose potential toxicological and ecotoxicological issues. The identification and quantification of micro- and nano-plastics in complex matrixes such as soils, plants, foods and human tissues are uncertain, adding to the difficulty in understanding their potential risks. While plastic contamination in aquatic environments has been studied for decades, only recently the scientific community shifted its focus to terrestrial environments. Plastics and bioplastics contamination in agricultural affects physical, chemical and microbiological functions of soils. Crops can take up plastic particles that can enter the food chain, leading to toxicological effects that are still being investigated and clarified. As plastics are an unavoidable component of agri-food chains, understanding the risks and developing mitigation strategies is crucial.

The 1st International Conference on micro- and nano-plastics in the agri-food chains aims to gather international experts for a state-of-the-art assessment over three days. The AGRIFOODPLAST conference will feature invited keynote speakers, sessions and workshops covering various aspects of micro- and nano-plastics, including their fate and modelling in terrestrial environments, their impact on soil functions, exposure assessment in food, their toxicological and ecotoxicological effects in the agri-food chain, the available remediation technologies and a One-Health approach for assessing associated risks.

Sessions' list

Session 1	<i>Fate & modelling of micro- and nano-plastics in terrestrial environments</i>
Session 2	<i>The soil plastisphere: degradation processes, interactions with other stressors and impacts on soil functions</i>
Session 3	<i>Exposure assessment of micro- and nano-plastics in foods</i>
Session 4	<i>Toxicological and ecotoxicological impacts of plastics and bioplastics in the agro-food chain</i>
Final Workshop	<i>A One-Health approach for risk assessment of micro- and nano-plastics</i>

Local conference organizer

Edoardo Puglisi (*Università Cattolica del Sacro Cuore - IT*)

Conference co-chairs

Margherita Ferrante (*Università degli Studi di Catania - IT*)

Stefania Federici (*Università degli Studi di Brescia - IT*)

Esperanza Huerta Lwanga (*Wageningen University and Research -NL*)

International Organizing Scientific Committee

Gea Oliveri Conti, Alfina Grasso, Chiara Copat (*Università degli Studi di Catania - IT*)
Violette Geissen (*Wageningen University and Research - NL*)
Damia Barcelo (*Catalan Institute for Water Research - SP*)
Luca Nizzetto (*Norwegian Institute for Water Research - NO*)
Moritz Bigalke (*Technical University of Darmstadt - DE*)
Gabriela Fernandez, Domenico Vito (*Metabolism of Cities Living Lab, San Diego University - USA*)
Giulia Carlini (*Centre for International and Environmental Law - CH*)
Giulia Carcasci, Sandra Corsi (*Food and Agriculture Organization of the United Nations, FAO*)
Maurizio Avella, Maria Cristina Cocca (*Consiglio Nazionale delle Ricerche, CNR - IT*)
Dimitrios Karpouzas (*University of Thessaly - GR*)
Fabrice Martin-Laurent (*National Institute for Agricultural Research, INRAE - FR*)

Alberto Frache (*Politecnico di Torino - IT*)
Mohamed el Banni, Iteb Boughattas (*University of Sousse - TN*)
Marina Pintar (*University of Ljubljana - SLO*)
Jane Mills (*University of Gloucestershire - UK*)
Abdallah Alaoui (*University of Bern - CH*)
Heide Spiegel (*Austrian Agency for Health and Food Safety - AT*)
Andreas Fliessbach (*Research Institute of Organic Agriculture, FIBL - CH*)
Alessandra Cincinelli, Amedeo Amedei, Duccio Cavaliere (*Università degli Studi di Firenze - IT*)
Liam Morrison (*University of Galway - IE*)
Noureddine Bousserhine (*University of Paris - FR*)
Joaquim Rovira (*Universitat Rovira i Virgili - SP*)
Aleksandra Tubić (*University of Novi Sad - SRB*)
Thorsten Hueffer (*University of Vienna - AT*)
Teresa Rocha-Santos (*University of Aveiro - PT*)

Local Organizing Committee

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Claudia Vacchelli
Alessandra Vischi
Leilei Zhang
Roberto Zoboli

Sunday 10th September

15.00-18.00	Registration
18.00-18.15	Opening Ceremony
18.15-19.15	Opening Keynote Lecture Damia Barcelo: <i>"Microplastics in terrestrial and aquatic environments: green analytical protocols, risks and sustainable solutions"</i>
19.15-20.00	Welcome Party

Monday 11th September

08.30-10.30	Session 1 – Fate & modelling of micro- and nano-plastics in terrestrial environments Chairs: Moritz Bigalke, Alberto Frache, Luca Nizzetto
08.30-09.00	Invited Lecture Elena Rovesti: <i>"The work of European Food Safety Authority in the risk assessment of micro- and nano-plastics in food"</i>
09.00-09.30	Keynote Lecture Luca Nizzetto: <i>"Confronting uncertainties of models for plastic releases, fate and transport"</i>
09.30-10.30	Selected Oral Presentations
10.30-11.00	Coffee Break
11.00-13.00	Session 2 – The soil plastisphere: degradation processes, interactions with other stressors and impacts on soil functions Chairs: Nouredine Bousserhine, Maria Cristina Cocca, Fabrice Martin-Laurent
11.00-11.30	Keynote Lecture Moritz Bigalke: <i>"100 or 10.000 microplastics kg⁻¹: What are the problems with analyzing MP concentrations in soils?"</i>
11.30-13.00	Selected Oral Presentations
13.00-14.30	Lunch
14.30-15.00	Invited Lecture Lauren Weir: <i>"Cultivating Plastic: Agriplastics, Grocery Retailer supply chains and Regulatory Loopholes: Focus on the UK"</i>
15.00-16.00	Poster Session
16.00-16.30	Coffee Break
16.30-18.30	Session 3 – Exposure assessment of micro- and nano-plastics in foods Chairs: Margherita Ferrante, Mohamed el Banni, or Joaquim Rovira
16.30-17.00	Keynote Lecture Gea Oliveri Conti: <i>"Microplastics: the invisible and underestimated risk in the food chain"</i>
17.00-18.30	Selected Oral Presentations
20.00	Gala Dinner

Tuesday 12th September

08.30-10.30	Session 4 – Toxicological and ecotoxicological impacts of plastics in the agro-food chain Chairs: Joaquim Rovira, Duccio Cavalieri, Gea Olivieri Conti
08.30-9.00	Invited Lecture Giulia Carcasci: “The work of the Food and Agriculture Organization of the United Nations to improve the sustainability of plastics used in agriculture and their alternatives” FAO
09.00-9.30	Keynote Lecture Esperanza Huerta Lwanga: “Risk assessment of microplastics along the terrestrial food chain”
09.30-10.30	Selected Oral Presentations
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10.30-11.00	Coffee Break
11.00-11.30	Keynote Lecture Joana Correia Prata: “Impact of airborne and foodborne microplastics on human health”
11.30-13.00	Selected Oral Presentations and Oral Poster Session Chairs: Aleksandra Tubic, Maurizio Avella, Domenico Vito
13.00-14.00	Lunch
14.00-15.00	Meeting of the organizing committee, organization of the next conference and future steps
15.00-15.30	Coffee Break
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15.30-18.30	Final workshop – A One-Health approach for risk assessment of micro- and nano-plastics (Papillon-Minagris-PRIORITY stakeholders meeting) - Hybrid event free of charge Chairs: Julie Ingram, Stefania Federici, Luca Nizzetto

Registration Fees

Registration Type	Amount
Senior Researchers (Early-bird)	300 €
Senior Researchers (Late registration)	400 €
Young Researchers (Early-bird)	180 €
Young Researchers (Late registration)	280 €
Gala dinner ticket	60 €

Important Dates

20th June 2023	Abstract submission early-bird registration deadline
15th July 2023	Notification of contribution acceptance
21st August 2023	Late registration deadline
1st September 2023	Final program available
10th September 2023	Opening of the Conference

Special Issue: Science of the Total Environment (STOTEN) Journal

Further info: <https://www.agrifoodplast.eu> / info@agrifoodplast.eu