



EUCARPIA CONFERENCE

on breeding to meet environmental & societal challenges

26th to 28

MAY 2025
PORTUGAL

Instituto Politecnico de Coimbra - ESAC

Agenda

Scientific conference objective: to foster discussions on innovative breeding strategies that address pressing environmental and societal challenges in the context of organic and agroecological agriculture

Co-Organizers

EUCARPIA

LiveSeeding

Polytechnic
University
of Coimbra

Supporting Organisations and Projects



Funded by the European Union and Swiss State Secretariat for Education, Research and Innovation (SERI). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or REA, nor SERI.



DAY 0 – Sun 25th May

18.00 – 19:00	EUCARPIA Section on Low Input and Organic Agriculture Board meeting <i>(For EUCARPIA board members only)</i> <i>Seminário Maior de Coimbra</i>
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DAY 1 – Monday 26th May

08.00 - 8:45	<i>Registration and welcome coffee</i>
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08.45 – 09.00	S01 Words of welcome from the organisers Prof. Rui Amaro , Dean of Faculty, Instituto Politécnico de Coimbra (PUC – ESAC, PT) Prof. Dr. Pedro Mendes Moreira , Instituto Politécnico de Coimbra (PUC – ESAC, PT) and Chair of the Eucarpia section organic and low-input agriculture Dr. sc. agr. Monika Messmer , Co-Lead Organic Plant Breeding, Research Institute of Organic Agriculture (FiBL, CH), LiveSeeding project Scientific Coordinator
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09:00 - 09:20	S02 Introduction to EU projects dedicated to organic plant breeding <i>(10 min presentation each, no discussion)</i> <ul style="list-style-type: none"> LiveSeeding in a nutshell (Dr. Monika Messmer, FiBL, CH) InnOBreed in a nutshell (Dr. Jean-Marc Audergon, INRAE, FR)
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09.20 – 09.45	S03 Keynote speech on environmental challenges: Successful transitions to organic and diversified agroecosystems: crop functional traits matter <i>(20 min presentation & 5 min discussion)</i> Moderator: Prof Dr. Roberto Papa Prof. Marney Isaac , Co-Director, Sustainable Food and Farming Futures Cluster (University of Toronto, Canada)
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Section I	Environmental Challenges
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09.45 – 10.45	S04 Breeding for abiotic stress tolerance and resource efficiency <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i> Moderator: Dr. Pedro Revilla Oral presentations (2):
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	<ul style="list-style-type: none"> • Dr. Marta da Silva Lopes (IRTA, ES), Breeding for multi-stress resilience in cereals: integrating environmental adaptability and UAV-assisted selection • Dr. Purificación A. Martínez-Melgarejo (CEBAS, ES), Promising Tomato Rootstock Ideotypes for Sustainable Fertilizer Use Efficiency
	<p>Poster pitches (3):</p> <ul style="list-style-type: none"> • Tristan Duminil (DORIANE, FR), Integrating Geo-Positioning and Phenotyping for Pollinator-Assisted Breeding to Address Abiotic Stress in Tomatoes • Dr. Maria Carlota Vaz Patto (ITQB NOVA, PT), High-throughput field phenotyping of <i>Vicia sativa</i> L. using hyperspectral reflectance indices • Patin Etienne (INRAE, FR), Potential of root traits in wild <i>Vitis</i> species to improve drought adaptation of grapevine rootstocks
10.45 – 11.15	Coffee break
11.15 – 12.15	<p>S05 Breeding for biotic stress tolerance <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i></p> <p>Moderator: Dr. Linda Legzdina</p> <p>Oral presentations (3):</p> <ul style="list-style-type: none"> • Eve-Anne Laurent (Agroscope, CH), Integrating sustainability criteria into rapeseed variety performance testing - An on-farm research network to assess variety pest tolerance • Dr. Mariateresa Lazzaro (FiBL, CH), Molecular breeding approaches to support organic white lupin breeding in Switzerland • Sara Rodriguez-Mena (IAS-CSIC, ES), Identification and physiological characterization of sources of resistance to <i>Aphanomyces</i> root rot in <i>Pisum</i> <p>Poster pitches (3):</p> <ul style="list-style-type: none"> • Dr. Aleksandra Ilić (UNS, RS), Tolerance of common bean (<i>Phaseolus vulgaris</i> L.) to bean weevil (<i>Acanthoscelides obtectus</i> Say) and relation of quantitative seed traits to crop resistance • Maria Mina (ITQB NOVA, PT), From field to genome: unravelling agronomic trait genetic architecture in <i>Lathyrus sativus</i> through QTL linkage mapping • Eirini Demertzi (AUTH, EL), Emerging superior common bean genotypes through Organic breeding for viral resistance and high yield performance
12:15 – 14.00	Lunch break
14.00 – 14.30	S06 Poster Session on environmental challenges (Section I)

Section II	Breeding for Diversity
14.30 – 15.00	<p>S07 Keynote speech on breeding for diversity: A holistic approach of plant breeding for diversifying crops and food systems <i>(20 min presentation & 10 min discussion)</i> Moderator: Prof. Dr. Pedro Mendes Moreira</p> <p>Dr. Veronique Chable, Senior agronomist and geneticist, INRAE France</p>
15.00 – 15.30	<p>S08 Breeding for Agrobiodiversity and Ecosystem Services <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i> Moderator: Prof. Dr Christian Schöb</p> <p>Oral presentations (1):</p> <ul style="list-style-type: none"> • Anders Borgen (Agrologica, DK), Marker assisted breeding of organic heterogeneous wheat in Denmark <p>poster pitches (3):</p> <ul style="list-style-type: none"> • Eva Plestenjak (KIS, SI), Exploring genetic diversity and seed coat colour variation in composite populations of common bean using whole genome sequencing • Dr. Francisco J. Canales (IAS-CSIS, ES), Advancing oat breeding in the Mediterranean climates through dissection of genetic diversity and structural variants. • Dr. Giedrius Petrauskas (LAMMC, LT), Integrating High-Throughput Phenotyping (HTP) into the forage legume breeding process
15:30-16:00	Coffee break
16:00-16:45	<p>S09 Breeding for Agrobiodiversity and Ecosystem Services <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i> Moderator: Dr. Marcos Lana</p> <p>Oral presentations (2):</p> <ul style="list-style-type: none"> • Marta Solemanegy (SSSA, IT), Tapping cowpea agrobiodiversity from Mozambique with genomics and participatory approaches to enhance local adaptation • Dr. Paolo Annicchiarico (CREA, IT), Pea evolutionary populations display specific adaptation to pure stand or intercropping and perform comparably or better than their best parent cultivar <p>poster pitches (2):</p> <ul style="list-style-type: none"> • Prof. Dr. Edward Gacek (COBORU, PL), Agronomic performance of winter wheat composite cross populations in organic farming systems in Poland. • Verena Simon-Kutscher (gzpk, CH), Diversification through Organic Heterogenous Material: How to adapt breeding programs for its development?

17:00 – 18:30	S10 Collaborative rice - Cooking demo with local producers at Politecnico University of Coimbra (optional)
19.00 – 21.00	Welcome cocktail - dinner Seminario Maior de Coimbra <i>(bus shuttle provided)</i>

DAY 2 – Tuesday 27th May

08.50 – 9.00	Practical Info
09.00 – 10.00	<p>S11 Breeding for Agrobiodiversity and Ecosystem Services <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i></p> <p>Moderator: Dr. Mariateresa Lazzaro</p> <p>Oral presentations (3):</p> <ul style="list-style-type: none"> • Alejandra S. Gallo Sandoval (WU, NL), Exploring plant-plant interactions between Brassica oleracea and Allium fistulosum to provide new insights for breeding for intercropping • Dr. Roberta Rossi (CREA, IT), Breeding for crop mixtures: root phenotyping for trait matching in lupin-wheat intercropping • Giorgia Siviero (UPO, IT), Evaluation of the association of a PGPB RCA25 with Introgression lines (ILs) of Oryza rufipogon X Oryza sativa cv Vialone Nano <p>poster pitches (2):</p> <ul style="list-style-type: none"> • Dr. Linda Legzdina (AREI, LV), Results on some improvement approaches of spring barley heterogeneous populations • Dr. Vijay Joshi (WSU, USA), Carrot improvement for organic agriculture: Leveraging on-farm and below ground networks
10:00 – 10.30	S12 Poster session on breeding for diversity (section II)
10.30 – 11.00	Coffee break
11.00 – 12.00	<p>S13 Breeding for healthy food <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i></p> <p>Moderator: Prof. Dr. Adrian Rodriguez-Burruezo</p> <p>Oral presentations (3):</p> <ul style="list-style-type: none"> • Dr. Pedro Revilla (MBG-CSIC, ES), Maize breeding for increasing carotenoid content in the grain • Dr. Vijay Joshi (TAMU, USA), Genetic studies on the productivity traits of organic spinach • Neus Ortega-Albero (UPV, ES), Evaluation of tomato traditional varieties (Solanum lycopersicum) for drought tolerance under organic farming conditions

	poster pitches (3): <ul style="list-style-type: none"> • Dr. Martina Ghidoli (Unimi, IT), Development of a New Pumpkin Variety Enriched with High Carotenoid Levels • André Pereira (PUC-ESAC, PT), From Field to Fork: Consumer Preferences Guiding Ideotype Selection for Tomato • Dr. Szilvia Bencze (ÖMKi, HU), Breeding for diversity, nutritional value and farmers' needs – a novel, participatory approach for improved durum and emmer cultivars
12:00 – 12:20	Presentation of the Horizon Europe new Cluster 6 calls <i>(15 min presentation and 5 min for questions)</i> Moderator: Mariano Iossa Dr. Agata Gulisano , Plant Breeding and Genetic Resources Policy Officer, DG AGRI, European Commission
12:20 – 12:30	Short break
12:30 – 13:00	S14 Poster session on breeding for diversity (Section II, continued)
13:00 - 14.00	Set off for field visit with bus (packed lunch)
14.00 - 16.00	Visit to Vivid Farm (organic and regenerative agriculture) <i>Casal Novo da Manobra</i>
16.00 – 19.00	Visit at Casa Mendes Gonçalves (agroforestry farm) <i>Golegã</i>
19.00 – 22.00	Social dinner at Casa Mendes Gonçalves, Golegã
22.00 – 23.00	Return to Coimbra

DAY 3 – Wednesday 28th May

08.50 – 9.00	General Info
Section III	Breeding to meet societal challenges
09.00 – 9:45	S15 Keynote on societal challenges: Participatory breeding to address the social and environmental challenges of smallholder farmers <i>(15 min presentation & 15 min translation , 5 min discussion)</i> Moderator: Dr. Carlota Vaz Patto

	Dr. Altair Machado , Embrapa (Brazilian Agricultural Research Corporation), Brazil
09:45 – 10:45	<p>S16 Participatory breeding and decentralized on-farm cultivar testing <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i></p> <p>Moderator: Marta Vasconcelos</p> <p>Oral presentations (3):</p> <ul style="list-style-type: none"> • Prof. Dr. Bill Tracy (UW, USA), Suitability of a network model to facilitate testing and increase adoption of organic seed: reflections from 12 years of the Northern Organic Vegetable Improvement Collaborative (NOVIC) • Dr. Isabelle Goldringer (INRAE, FR), Participatory agronomic diagnosis, a new approach to combine farmers' expertise and agronomic science • Dr. Nicolas Enjalbert (SeedLinked, USA), Scaling Up Participatory Plant Breeding for Diversified Agricultural Systems <p>Poster pitches (3):</p> <ul style="list-style-type: none"> • Yiching Song, Enhancing Farmer Seed Systems for Healthy and Sustainable Food system Transformation: 25 years' Action Research in China • Verena Simon-Kutscher (FiBL, CH), Extending participatory breeding to multi-actor involvement to co-construct value chains for Neglected and Underutilised Crops: questions and methods • Prof. Dr. Pedro Mendes Moreira (PUC-ESAC, PT), 40 years of Participatory Plant Breeding in Portugal. The VASO Program
10.45 – 11.15	Coffee break
11.15 – 12.00	<p>S17 Innovative financial and governance models <i>(10 min per paper & 4 min question and 3 min per poster pitch)</i></p> <p>Moderator: Dr. Mariagiulia Marinai</p> <p>Oral presentations (1):</p> <ul style="list-style-type: none"> • Freya Schäfer (FiBL, DE), Breeding and Multiplying Cultivars for the Organic Farming Sector in Europe – An Explorative Factor Analysis on Seed Suppliers' and Breeders' Perspectives <p>Poster pitches (6):</p> <ul style="list-style-type: none"> • Ana – Marija Špicnagel (IPS konzulting, HR), Business Birdview as an innovative concept for accelerating organic farming • Laura Lancellotti (FAO – ITPGRFA, Italy), The International Treaty's Benefit-sharing Fund as innovative funding model • Clémentine Antier (UCL, BE), An improved framework to classify seed systems in the organic sector

	<ul style="list-style-type: none"> • Marlene Sander (FiBL, CH), Organic from the start – why does it matter? Benefits and costs of organic heterogeneous material in organic wheat cultivation • Kata Fodor (ESSRG, HU), Breeding with Crop Wild Relatives: possibilities for an agroecological and social transition • Matteo Petitti (RSR, IT), From organic breeding to market: living labs to advance organic seeds in organic value chains
12:00 – 12:30	S18 Poster session on societal challenges (section III)
12:30 – 14:00	Lunch break
14.00- 15.00	<p>S19 Impact of EU regulations on Plant Reproductive Material (PRM) and New Genomic Techniques (NGT) on the organic sector</p> <p>Moderator: Dr. Freya Schäfer (FiBL)</p> <p><i>(10 min per speaker and general discussion)</i></p> <p>Oral presentations (3) & discussion:</p> <ul style="list-style-type: none"> • Dr. Monika Messmer (FiBL, CH) • Dr. Cathleen McCluskey (OSA, USA) • Dr. Ir. Edwin Nuijten (ECO-PB, EU)
15.00 - 15:30	Coffee break
15:30 – 15:50	S20 Poster awards
15:50 – 16:00	<p>S21 Concluding remarks and outlook</p> <p>Prof. Dr. Pedro Mendes Moreira, Instituto Politécnico de Coimbra (PUC – ESAC, Portugal) and Chair of the Eucarpia section organic and low-input agriculture</p>