



Book of Abstracts

Innovation in Mediterranean Traditional Foods: Novel Products and Processes

13th-14th October 2022

Title:

Innovation in Mediterranean Traditional Foods: novel products and processes

Editors:

Luana Fernandes, Alexandre Gonçalves and Lillian Barros

Design:

Sofia Nunes

ISBNs:

978-972-745-311-5

Edition:

Instituto Politécnico de Bragança (IPB)

5300-253 Bragança, Portugal

Tel. (+351) 273 303 382

<http://www.ipb.pt>

URL

<https://imtf.morecolab.pt>





SCIENTIFIC COMMITTEE

- **Alexandre Gonçalves**
(Collaborative Laboratory Mountains of Research, Association, Portugal)
- **Luana Fernandes**
(Collaborative Laboratory Mountains of Research, Association, Portugal)
- **Lillian Barros**
(Polytechnic Institute of Bragança, Portugal)
- **Ingrid Aguiló-Aguayo**
(Institut de Recerca i Tecnologia Agroalimentaries, Spain)
- **Andrea Hickisch**
(Fraunhofer Gesellschaft Zur Forderung Der Angewandten Forschung EV, Germany)
- **Gwénaél Jan**
(Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement, France)
- **Valerie Gagnaire**
(Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement, France)
- **Cristina Alamprese**
(University of Milan, Italy)



ORGANIZING COMMITTEE

- Lillian Barros (IPB, Portugal)
- Alexandre Gonçalves (MORE, Portugal)
- Luana Fernandes (MORE, Portugal)
- Ana Paula Pereira (MORE, Portugal)
- Luís Pinto (MORE, Portugal)
- João Pinto (MORE, Portugal)
- Natércia Fernandes (MORE, Portugal)
- Inês Braga (MORE, Portugal)
- Sónia Geraldès (MORE, Portugal)
- Sofia Nunes (MORE, Portugal)
- Ana Oliveira (MORE, Portugal)
- Alberto Teixeira (MORE, Portugal)
- Sandrina Heleno (IPB, Portugal)
- Márcio Carochó (IPB, Portugal)
- Manuel Ayuso Vilaboa (IPB, Portugal)
- Eliana Pereira (IPB, Portugal)
- Cristina Caleja (IPB, Portugal)



Schedule

OCTOBER 13TH, MORNING

9:00-9:30	OPENING SESSION Andrey Romanenko (CEO of MORE - Laboratório Colaborativo Montanhas de Investigação) Lillian Barros (CIMO-IPB Vice-Coordinator-IMTF Conference Chair)
9:30-13:00	SECTION 1: INNOVATIVE PLANT-BASED DAIRY ANALOGUES
	CHAIRS: Luís Pinto and Manuel Ayuso Vilaboa
9:30-10:00	PLENARY SESSION 1 Andrea Hickisch - IVV (DE) Process development of milk alternatives based on plant raw materials
10:00-10:30	KEYNOTE SESSION 1 Gwénaél Jan and Valérie Gagnaire - INRAE (FR) Using bacterial starters to develop fermented innovative plant-based dairy analogues
10:30-11:00	ORAL SESSION 1
10:30-10:45	Catarina Vila Real - UCP (PT) Plant-based cheese-type analogues: a review on nutrition and functional challenges
10:45-11:00	Martinha Costa - Yogan Creamery (PT) Challenges in the fermentation and aging of vegan cheeses
11:00-11:15	DISCUSSION PANEL
11:15-11:45	COFFEE BREAK AND POSTER SESSION
11:45-12:15	KEYNOTE SESSION 2 Guillaume Vannier Moreau - LA MANDORLE (FR) High Nutritional Value of instant vegetal drink
12:15-12:45	ORAL SESSION 2
12:15-12:30	Oren Shelef - ARO (IL) Evaluation of <i>Malvaceae</i> species and other wild plants as novel food: lessons for innovative traditional meals
12:30-12:45	DISCUSSION PANEL
12:45-14:30	LUNCH TIME

Schedule



OCTOBER 13TH, AFTERNOON

14:30-18:00

SECTION 2: PLANT AND NUT-BASED FLOURS AND DEVELOPMENT OF BAKERY PRODUCTS AND PASTA

CHAIRS: Sandrina Heleno and Márcio Carochó

14:30-15:00

PLENARY SESSION 2

Cristina Alamprese - UMIL (IT)

Legume and nut flours in bakery products and pasta production: challenges and opportunities

15:00-15:30

KEYNOTE SESSION 3

Elisabete Ferreira - PÃO DE GIMONDE (PT)

Innovation in bakery: an opportunity for sustainability

15:30-16:00

ORAL SESSION 3

15:30-15:45

Maria Beatriz Oliveira - FFUP (PT)

Cladodes flour – an innovative ingredient for traditional Mediterranean bakery products

15:45-16:00

İlgin Doğruer - IZTECH (TR)

Properties of pre-cooked and germinated chickpea flours and gluten-free cookies baked

16:00-16:30

COFFEE BREAK AND POSTER SESSION

16:30-17:00

KEYNOTE SESSION 4

Sibel Uyar - UKKOOP (TR)

Artichoke meatball and chickpea flour cookies

17:00-17:30

ORAL SESSION 4

17:00-17:15

Ayca Tuna - IZTECH (TR)

Legume and nut-based flours with fruit powders in sponge cakes: Spectroscopic and textural properties

17:15-17:30

Maria Helena Gomes - COLAB4FOOD (PT)

Mediterranean traditional snacks with a twist to meet consumer needs

17:30-17:45

DISCUSSION PANEL

20:00

SOCIAL DINNER



Schedule

OCTOBER 14TH, MORNING

9:00-12:00

SECTION 3: INNOVATIVE ADDED-VALUE TRADITIONAL READY-TO-EAT MEALS

CHAIRS: Cristina Caleja and Eliana Pereira

9:00-9:30

PLENARY SESSION 3

Ingrid Aguiló-Aguayo - IRTA (SP)

Legumes and nuts: an innovative and healthier option for daily ready-to-eat foods

9:30-10:00

KEYNOTE SESSION 5

Ram Reifen - CHICKP (IL)

Leveraging traditional crops for better nutrition and health - the case of chickpea

15:30-16:00

ORAL SESSION 5

10:00-10:15

Hernandez-López Israel - IRTA (SP)

Incorporating microalgae and chickpea protein isolate for a healthier 3D food printed product

10:15-10:30

Rafaela Geraldo - UPC (PT)

Lentil-based snack: development and nutritious properties

10:30-10:45

DISCUSSION PANEL/ BEST POSTER AWARD

Ricardo Malheiro (CEO of ReadyToPub)

10:45-11:15

COFFEE BREAK AND POSTER SESSION

11:15-11:45

KEYNOTE 6

Ana Barros - CITAB/Mesosystem (PT)

New approaches for the development of alternative foods based on vegetable and ocean sources

11:45-12:00

CLOSING SESSION

Alexandre Gonçalves (MORE- Innovation Diretor - IMTF Conference Chair)

Luís Pais (Vice President of IPB)

Isabel Ferreira, Secretary of State for Regional Development



Nutritional, chemical, and antioxidant evaluation of different Armuña lentil cultivars (*Len culinaris* spp): Influence of soil composition and year

Ângela Liberal^{1,2}, Daiana Almeida^{1,2}, Ângela Fernandes^{1,2}, Carla Pereira^{1,2}, Isabel C.F.R. Ferreira^{1,2}, Ana María Vivar-Quintana³, Lillian Barros^{1,2}

¹ Centro de Investigação de Montanha (CIMO), Instituto Politécnico de Bragança, Bragança, Portugal; Laboratório

² Associado para a Sustentabilidade e Tecnologia em Regiões de Montanha (SusTEC), Instituto Politécnico de Bragança, Bragança, Portugal;

³ Tecnología de los Alimentos, Escuela Politécnica Superior de Zamora, Universidad de Salamanca.

*afeitor@iqob.pt; avivar@usal.es

Lentils (*Lens culinaris* Medik) are a fast-cooking legume widely consumed around the world due to their valuable nutritional and chemical profiles. Here, the nutritional and chemical profiles of 34 Armuña lentil samples were assessed, as well as their antioxidant assets. Additionally, the influence of the meteorological conditions during the growing season, along with the type of soil in which they grow (Luvisol and Cambisol), on both nutritional and chemical profiles were also evaluated. Our results showed high amounts of valuable nutrients, such carbohydrates, of which approximately 47.06% and 29.11% are made by fibers and starch, respectively, and significant amounts of proteins (20.47 to 25.56 g/100 g fw) and ashes. Fatty acids assessment showed the prevalence of PUFAs (45.3 to 63.7%). A good antioxidant capacity (TBARS and OxHLIA) was also observed. Our results indicates that the growing season significantly impact major nutrients in lentils, such as the concentration of fat, ashes, fibers, and fructose and, to a lesser extent, proteins, and sucrose. Additionally, the two different types of soil in this study seem not to affect none of the analyzed parameters.

The attained results support the idea that different edaphoclimatic factors during cultivation must be considered, since the quality traits that stand out in lentils seems to be affected by these factors.

Keywords: *Lens culinaris*; Armuña lentil; Nutritional Value; Chemical Composition; Bioactive Properties