





NEWSLETTER N° 6

June 2025

Boosting technologies of orphan legumes towards resilient farming systems in the Greater Mediterranean Region: from bench to open field.

BENEFIT-Med Executive Committee Meeting

BENEFIT-Med The Executive Committee Meeting took place on June 11th, 2025, to discuss upcoming project deadlines, including preparations for the final meeting and the associated joint workshop.



BENEFIT-Med at the AAB Conference "Legumes in Science and Practice 3"

Dr. Demosthenis Chachalis from the BPI Team presented a talk on seed biopriming for weed management, highlighting orphan legumes as key players in sustainable agriculture, at the "Legumes in Science and Practice 3" Conference organized by the AAB on June 3rd-4th, 2025, at the University of Reading.



Benefit-Med Cycle of Lectures

Dr. Diego Rubiales, from CSIC-Spain, presented the lecture "Breeding orphan legumes adapted to Mediterranean rainfed farming systems" on June 2nd, 2025. The session, attended by Benefit-Med teams, young researchers, PhD, and Master students, offered a valuable opportunity to deepen knowledge on orphan legumes.



With Seeds-Basic, Translational & Applied Science"

The UNIPV team training initiative held on 6th June 2025, offering Bachelor, Master, and PhD students a hands-on opportunity to develop soft skills, present research, and engage in collaborative discussions on BENEFIT-Med topics.



Friday June 6, 2025 - Aula Buzzati-Traverso



WORKSHOP: Exploration and Analysis of Metagenomic Data: Illumina and Nanopore

Postdoctoral researchers and PhD students involved in the BENEFIT-Med project participated in a workshop entitled "Exploration and Analysis Metagenomic Data: Illumina and Nanopore", organized by the Tunisian Association of Physiology Environmental Bio surveillance (ATP-BE) from April 17 to 19, 2025, at the Faculty of Sciences of Sfax.



CONFERENCE: Seed Quality & Germplasm. Adaptation to Biotic and Abiotic Stresses

On January 21st, 2025, the Greek Teams BPI, AG, and AUA organized an event to present the progress of the BENEFIT-Med project and showcase innovations from both academic and private sectors in seed development.























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BENEFIT-Med

BENEFIT-Med Meets PolyCIVIS

The latest PolyCIVIS (ERASMUS-JMO-2023-NETWORKS) Newsletter featured an interview with the Coordinator of the BENEFIT-Med project *Dr. Alma Balestrazzi*, which served as a model multidisciplinary network tackling climate change by translating laboratory research into field applications, ultimately providing sustainable solutions for small farmers in the most climate-vulnerable areas of the Mediterranean.



Collaborative Work on Orphan Legumes: BENEFIT-Med Outputs Published on Scientific Journals

The collaborative efforts of UNIPV, US, BPI, AG, and AUA led to two recent publications: (i) Pagano et al., Genes (2025), which explored hydropriming as a strategy to mitigate heat stress effects on germination in orphan legumes; and (ii) Goufa et al., Appl. Sci. (2025), which examined differences in eight agronomic traits between two grass pea varieties under two salinity levels following seed priming.



BENEFIT-Med Open Field Demonstrations

On May 15th, 2025, the Greek teams (AG, BPI, AUA) organized an event in Central Greece to showcase improved legume varieties and sustainable agronomic practices. The gathering united local farmers with representatives from Agroland S.A. and the AG, BPI, and AUA teams, fostering collaboration on advancing sustainable agriculture.



In Agareb, Tunisia, on March 13th, an engaging discussion took place about the impact of climate change on plant growth. The conversation brought together the Tunisian BENEFIT-Med project team, the partner organizations, and agricultural engineers, reflecting a collaborative effort to address climate challenges in agriculture.



Participatory Field and Greenhouse Trials on Orphan Legumes in Tunisia

The BENEFIT-Med Coordinator's visit to the second field trial in Tunisia in February 2025 provided an excellent opportunity to engage directly with local farmers and highlight the crucial role that women farmers play in the project's success.



2nd Round Field Trial Closed at the Tunisian Pilot Site

The 2nd round has been successfully completed, delivering highly encouraging results. These findings reinforce the positive impact of seed priming on crop development and provide valuable insights for improving sustainable agricultural practices under challenging environmental conditions.



Field Trials in Algeria: Focus on Soil Quality

A thorough soil sampling and analysis campaign was conducted on March 17th, 2025, during the vegetative growth stage. Essential physicochemical parameters were measured to evaluate soil fertility. All analytical data were digitized and securely stored in the project's central database to enable continuous monitoring and long-term comparisons.



Field Trials in Greece: Focus on Soil Quality

A successful field trial conducted in Central Greece by the BPI and AUA teams has recently concluded, with data collection currently underway.













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Strengthening the Benefit-Med Network: PhD Students from Sfax to Pavia

UNIPV welcomes the PhD students Hamida Barhoumi and Sawsen Hnichir from the University of Sfax.

They will spend a two months stage in Pavia to establish improved protocols to assess the genotoxic stress response in orphan crops, challenged by environmental stresses.



Collaborative Work on Orphan Legumes: BENEFIT-Med Outputs Published on Scientific Journals

The INRAE-AgroParisTech team incorporated key scientific topics from the BENEFIT-Med project into a 48-hour teaching module within the second-year engineering curriculum at AgroParisTech. Led by *Prof. Loïc Rajjou*, practical training sessions focused on seed priming techniques, with a particular emphasis on bacterial priming. These sessions provided students with valuable experience in microbial-assisted priming methods aimed at improving germination and enhancing abiotic stress tolerance in orphan legumes.



Upcoming Event BENEFIT-Med Final Meeting

UNIPV welcomed *Fifonsi Fafa-Amegnihe* from the INRAE team. She is working with great energy and enthusiasm to assemble the BENEFIT-Med data provided by the various partners and to find the most efficient way to organize it.

Legacy

Building the Med-Hub Database: The Benefit-Med

Fifonsi recently visited Pavia for joint meetings and collaborative working sessions aimed at optimizing the overall management of the Med-Hub database.



The *BENEFIT-Med Final Meeting* will take place on October 22nd and 23rd, 2025, in Pavia, Italy, followed by the Joint Workshop of the PRIMA Projects *BENEFIT-Med, PROSIT*, and *SIRAM* titled "*Roots of Resilience: Microbial and Plant Biodiversity in Mediterranean Farming Systems*" on October 24th, 2025, hosted by the University of Pavia as a hybrid event.

This gathering will showcase cutting-edge research and collaborative efforts to promote sustainable agriculture and biodiversity in the Mediterranean region, addressing critical challenges such as climate adaptation and ecosystem restoration

Upcoming Event Join Us at WACCAD2025

We are pleased to invite you to the 2nd International Seminar on Water, Climate Change, Agriculture, and Territorial Development (WACCAD2025), in Constantine, Algeria, from November 3 to 6, 2025.

This dynamic event will feature 20 thematic sessions spanning geography, agronomy, and territorial planning, providing a rich platform for knowledge exchange and innovation. Attendees will have exclusive publishing opportunities in renowned peer-reviewed journals such as MDPI, SASA, and Elsevier.









