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INNO-SAFE-LIFE

REPORT

STAFF TRAINING

Organized by

P1 of the ERASMUS KA220-HED - Cooperation partnerships in higher education, project no. 2023-1-RO01-KA220-HED-000164767, Partnership for innovation on the exchange of best practices and the design of joint collaborative initiatives at European level related to the awareness of the effects contamination on human health

The specific objectives of Work Package n°2 – Teaching, Training and Learning are to provide continuous training for specialists by addressing international and interdisciplinary topics relevant to soil, food, and health contamination; to educate and support students in developing and implementing innovative techniques and protocols at institutional, national, and international levels; to integrate expertise from agriculture, horticulture, health, and industry in order to ensure knowledge transfer, promote sustainable practices, and respond to global challenges such as climate change and antimicrobial resistance; and to foster professional development, civic engagement, and entrepreneurial skills through theoretical and practical activities designed to stimulate active participation and innovation.

The main results of Work Package n°2 – Teaching, Training and Learning will consist of the formation of a well-prepared group of experts with advanced interdisciplinary and complementary qualifications, alongside a significant number of students equipped with the skills to develop innovative solutions in the fields of agriculture, horticulture, health, and industry. The activities will generate progress and training reports as well as digital support materials to ensure the transfer of knowledge and best practices. Direct beneficiaries, including academic staff, researchers, industry specialists, and students, will gain both theoretical and practical competencies, while indirect beneficiaries, such as the wider population, will benefit from improved access to qualified professionals and comprehensive educational resources. These results will contribute to strengthening international cooperation, enhancing professional development, and reinforcing the link between higher education, research, industry, and society.

Staff training period: 23-27 September 2024

Between 23–27 September 2024, Università della Calabria (UNICAL) hosted a training program under the INNO-SAFE-LIFE project. The event brought together experts, researchers, students, and industry representatives for a five-day program structured into three theoretical sessions and two practical sessions.



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The aim was to strengthen interdisciplinary knowledge, enhance laboratory and field-based skills, and promote international collaboration in addressing soil-to-food-to-health contamination, food safety, and the role of phytochemicals and nutrition in human health.

1. Theoretical Part

Day 1 – 23.09.2024

Welcome and institutional presentation.

Project overview: INNO-SAFE-LIFE – Partnership for innovation and exchange of best practices.

Lecture on the role of healthy nutrition on the human body, emphasizing preventive approaches and diet-related health benefits.

Day 2 – 24.09.2024

Lecture on Balkan endemic nephropathy caused by aristolochic acid-contaminated plants.

Session on microbiology and biotechnology in dietary products.

Presentation on isoflavone analysis in foods and supplements.

Lecture on environmental factors and health biomarkers.

Working group discussions to integrate concepts and propose collaborative approaches.

Day 4 – 26.09.2024

Practical-theoretical session on identification of causative agents of fungal vascular wilts.

Presentation of Favicomplexe as an innovative natural product application.

Session on damping-off and root rot pathogens, with emphasis on plant health and food chain implications.

Outcomes

The theoretical sessions provided participants with an integrated perspective on nutrition, phytochemicals, food microbiology, toxic plant metabolites, fungal pathogens, and environmental health challenges. The exchange of expertise enhanced interdisciplinary understanding and prepared participants for hands-on application in the practical modules.



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2. Practical Part

Day 3 – 25.09.2024

Field visit to Cantine Termine Grosso, Kroton.

Applied workshop on phytochemical compounds in grapes and their importance for human health and dietary applications.

Group work focused on linking phytochemical analysis with food safety and nutrition outcomes.

Day 5 – 27.09.2024

Laboratory workshop on qualitative and quantitative determination of phytochemical compounds in foods and food supplements, with demonstration of modern analytical methods.

Final evaluation of participants' knowledge and closing discussions.

Outcomes

The practical sessions allowed participants to directly apply their theoretical learning in real-world contexts. By engaging in both field and laboratory work, they strengthened their analytical skills, enhanced understanding of phytochemicals' role in nutrition and food safety, and experienced the interdisciplinary link between agriculture, health, and biotechnology.

The September 2024 training program successfully combined theoretical lectures and practical experiences, ensuring both knowledge transfer and skill development. Participants gained:

- A stronger understanding of the effects of contaminants, phytochemicals, and pathogens on health.

- Practical skills in laboratory analysis and field-based evaluation of phytochemical compounds.

- Enhanced capacity for interdisciplinary collaboration, innovation, and application of good practices.

This training reinforced the project's objective of building international cooperation, promoting sustainable solutions, and developing the next generation of specialists capable of addressing soil-to-food-to-health contamination challenges.



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