



European Research Alliance

ERA Pesticide Free

Towards a chemical pesticide free agriculture

NEWSLETTER #17

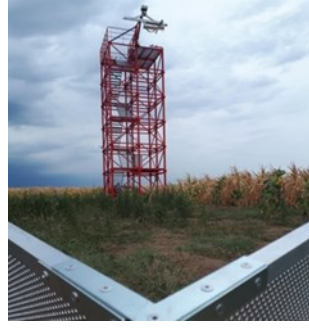
ROMANIA

15 May 2024

Every two weeks, this newsletter will be prepared by a different Alliance member.

Today we are happy to share a contribution from the [University of Agronomic Sciences and Veterinary Medicine of Bucharest \(USAMV\)](#) in Romania.

Satellite technologies for precision agriculture



The Support Campaign for the Sentinel-1 Companion Satellite (CS) - System Studies (CampaignS1_T-SAR), a project of the European Space Agency, is being implemented at the Moara Domnească CDI farm of the USAMV Bucharest by a team of university researchers, together with the Romanian company, Terrasigna. SAR tomography, an advanced radar technology, a non-invasive investigation method for remote monitoring is designed to perform crop health monitoring as well as disease, pest and weed detection. The system measures and compares a range of biophysical indicators with ground and satellite data. The aim is to develop high-performance sensors placed on future satellites for global crop monitoring and an alert system for farmers.

Contact person: [Cristian Moise](#)

The Euphresco project “ArthCollect” finished successfully!

The fast and accurate identification of new pests is essential to reduce or avoid the use of pesticides. The ArthCollect project— DNA sequences for reliable identification of arthropod species of plant health importance was designed to facilitate the exchange of knowledge and expertise between partners on molecular barcoding techniques for arthropod pests that are challenging and often require long-term efforts to identify. As main activities, the project included validation and improvement of molecular tools for arthropod identification, interlaboratory test performance study (TPS) of these new molecular tools, on Infraorder Coccothorpha.

The main project results are available here:

- Final Arthcollect report: [DNA sequences for reliable identification of arthropod species of plant health importance \(ArthCollect\)](#)
- Arthcollect Test Performance Study report: [Arthcollect 2019-F-323 Interlaboratory Test Performance Study](#)



Two important scientific events addressing sustainable practices and innovations are hosted by USAMV Bucharest in the coming period

- Vth European Horticulture Congress in Bucharest, Romania

Between 12th and 16th of May 2024, the USAMV Bucharest is organising and hosting the European Horticultural Congress (EHC2024). The Congress will take place in an emblematic building, The Palace of Parliament, and will gather 1,000 participants, professionals in the field, from over 60 countries, who will participate in 10 scientific symposia, 11 technical tours. The symposia address sensitive topics such as sustainability, resilience, climate change, biodiversity, agroecology, circularity, green cities, genetic resistance, robotics and mechanisation, production efficiency, artificial intelligence, etc.

More information can be found here: <https://ehc.usamv.ro>



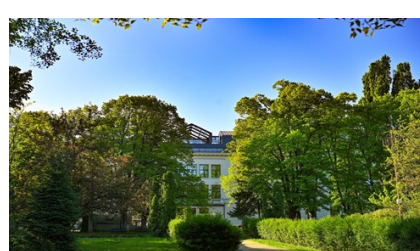
- The 2024 Edition of the International Conference “Agriculture for Life - Life for Agriculture”, will take place between 6th and 8th of June 2024, under the general theme “Land and water management - Challenges for agriculture”

This is USAMV Bucharest's main annual scientific event, offering researchers, industry representatives and policy makers the opportunity to share their innovative ideas and results to address agricultural challenges based on scientific evidence.

The special guest of this edition is Ms. Christiane Lambert, President of COPA, the largest farmers union in the European Union, who will present the perspective of European farmers on Land management and water resilience.

The thematic sessions of the Conference will address topics such as Agroecology and Biodiversity, Conservation and Sustainable management of natural resources, Fair, safe and healthy food production systems, Circularity, Precision agriculture, Protection and conservation of the nation's biological material, Strategies and policies for agriculture and rural development etc.

More information can be found here: <https://agricultureforlife.usamv.ro>



National projects financed by the Ministry of Agriculture and Rural Development:

ADER 2.1.7. “Use of plasma technologies in the management of pests and diseases of stored agricultural products”.



The project's objective is focused on non-chemical crop management and plant protection systems designed to minimise residues of potentially harmful compounds. The project evaluates the effectiveness of plasma technologies in controlling major pests and mycotoxigenic fungi affecting cereals and vegetables during storage, with the aim of integrating these technologies into pest and disease management practices.

In addition, the effects of plasma technologies on seed for sowing and on plant growth and development following the application of plasma treatments for pest and disease control will be assessed. The tested plasma technologies are represented by a fluidized bed reactor with a filamentary plasma source generated in radio frequency (RF) and a DBD (Dielectric Barrier Discharge) reactor. The wheat and maize, infested with most common Lepidoptera and Coleoptera pest species, were analyzed after plasma treatments, to evaluate the evolution of seeds germination and growth indices.

Contact person: [Roxana Ciceoi](#)

Academia and business partners together for a 'Europe 2050 pesticide-free'

USAMV Bucharest is one of academic partners in the Horizon Europe MSCA project ACROPICS - Agroecological crop protection: towards international co-innovation dynamics and evidence of sustainability, along with 14 other academic institutions across Europe, Asia and South America. The overall project objective is to encourage the reduction in the use of chemical pesticides by adopting systemic innovations in the agroecological crop protection. The academic entities further co-opted 12 partners from the business environment (farms, cooperatives, producers of bio inputs s.a.) together with whom the innovations intended to bring us closer to the strategic objective 'Europe 2050 pesticide-free' will be tested, validated and disseminated. In this sense, USAMV is joined by Cooperativa Agricola Bioprod Colibasi (Bioprod), one of the largest and most developed cooperative in Romania focused on growing vegetables. Bioprod brings together over 400 vegetable producers from the Colibasi basin in Giurgiu, totaling over 200 ha of greenhouses and over 800 ha open field crops, latest generation machinery, cold storage and own distribution fleet, with an aggregate production of over 70 kt of vegetables in 2023. USAMV recently welcomed the project manager Dr Thibaut Malausa, Director of Research within INRAE in Bucharest for a visit aimed at increasing mutual understanding, fostering cooperation and strengthening relationships.



This is the newsletter of the European Research Alliance Towards a chemical pesticide free agriculture

Visit the Alliance's website: <https://www.era-pesticidefree.eu/>

This issue has been prepared by [USAMV - Bucharest](#) as a member of this Alliance.

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