



Root-Benefit

Beneficial root-associated micro-organisms for sustainable agriculture

<https://www.root-benefit.eu>
info@root-benefit.eu



ROOT-BENEFIT Symposium & 3rd Annual Meeting, Granada 2026

BENEFICIAL MICROORGANISMS FOR SOIL HEALTH AND AGRICULTURE

Final Program



Beneficial root-associated microorganisms for sustainable agriculture is a project funded by the European Union (CA22142).



European
Union





BENEFICIAL MICROORGANISMS FOR SOIL HEALTH AND AGRICULTURE

Wednesday 13 May 2026

13:30-14:00 Reception and poster mounting

14:00-14:30 Welcome and presentation

14:30-16:30 WG1 session I (Chairs: Davide Bulgarelli and Natalija Atanosava-Pancevska)

14:30-15:00 Keynote lecture. Carmen Escudero-Martínez (IRNASA-CSIC, Spain). Integrative crop trait profiling using combined root exudate and rhizosphere microbiota to identify traits that predict plant–microbe interactions

15:00-15:15 Ismail Bezirganoğlu (Erzurum Technical University, Turkey). Advances in endophytic microbial biostimulants for alfalfa (*Medicago sativa* L.) cultivation

15:15-15:30 Kevin Bretscher (Leiden University, The Netherlands). Towards a rice paddy microbiome atlas

15:30-15:45 Sara Borin (University of Milan, Italy). Sunflower in contaminated soil “cry-for-help” of beneficial bacteria

15:45-16:00 Alessandro Ciampanelli (University of Turin, Italy). Leveraging lettuce genetic diversity to identify phosphate responsive root endophytes

16:00-17:45 Coffee break and poster session

17:45-19:00 WG1 session II (Chairs: Davide Bulgarelli and Natalija Atanosava-Pancevska)

17:45-18:15 Keynote lecture. Michael Schloter (TUM, Germany). Reprogramming the rhizosphere: Synthetic microbial communities to combat apple replant disease

18:15-18:30 Giacomo Chiarelli (University of Bologna, Italy). Waste organic amendments increased Ammonia Oxidizing Archaea (AOA) in the rhizosphere of grapevines

18:30-18:45 Micol Guaschino (CREA-VE, Italy). Decoding plant-microbiome interactions: insights into genetic players involved in beneficial microorganisms’ recruitment in grapevine genotypes

18:45-19:00 Alexandros Mosca (University of Catania, Italy). A multi-layer metagenomic framework uncovers a dominant *Acinetobacter* sp. driving tomato rhizosphere microbiota structure and functional potential



Thursday 14 May 2026

9:00-10:30 WG2 session I (Chair: Florian Frugier)

9:00-9:30 Keynote lecture. Simona Radutoiu (Aarhus University, Denmark). Plant root microbiota: from guiding principles to practical applications

9:30-9:45 Michal Jasinski (Polish Academy of Sciences, Poland). Cytokinins in and out - how ABC transporters may shape *Medicago* root morphology upon nitrogen deficiency

9:45-10:00 Maria J. Soto (EEZ-CSIC, Spain). The role of rhizobial volatile compounds in plant-microbe interactions

10:00-10:15 Peter Kalo (HUN-REN Biological Research Centre, Hungary). Loss of Uridine diphosphate (UDP)-dependent glycosyltransferase gene UGT73F3 compromises root development and symbiotic performance in *Medicago truncatula*

10:15-10:45 CAOS Program. Francisco Martínez-Abarca (EEZ-CSIC, Spain)

10:45-11:30 Coffee break and poster session

11:30-13:00 WG2 session II (Chair: Joanna Banasiak)

11:30-12:00 Keynote lecture. Marc Ongena (Gembloux Agro-Bio Tech, Belgium). Molecular basis of unsuspected mutualism between *Bacillus* and *Rhizophagus*

12:00-12:15 Lidia Błaszcyk (Polish Academy of Sciences, Poland). MicroRNA mediating multidirectional interaction of wheat with pathogenic *Fusarium culmorum* and beneficial *Trichoderma atroviride*

12:15-12:30 Francisco J. Colina (EEZ-CSIC, Spain). A novel tomato NAC transcription factor regulates lipid metabolism during microbe-induced resistance to herbivory

12:30-12:45 Rosa Sánchez-Lucas (University of Birmingham, United Kingdom). Effect of enhanced CO₂ atmospheric levels in mycorrhiza colonisation and its role in plant defence

12:45-13:00 Nicolas Marro (Institute of Botany of the Czech Academy of Sciences, Czech Republic). Time matters: mycorrhizal colonization dynamics shape plant interaction with parasitic nematodes

13:00-13:05 How to manage COST reimbursement (Iaroslavna Fable, Grant holder manager)

GROUP PHOTO

13:05-14:00 Lunch



14:00-15:30 WG3 session I (Chair: Jan Jansa)

14:00-14:30 Keynote lecture. Tania Galindo (ETH Zurich, Switzerland). Synergies in the hidden half: root phenotypes as regulators of microbial ecosystem services

14:30-14:45 Fatjon Cela (University of Pisa, Italy). Arbuscular Mycorrhizal Fungi (AMF) can overcome phosphorus deficiency and increase antioxidant activity and yield in lettuce

14:45-15:00 German Tortosa Muñoz (EEZ-CSIC, Spain). Compost and vermicompost improve symbiotic nitrogen fixation, physiology and yield of the *Rhizobium*-legume symbiosis

15:00-15:15 Emanuel Gaši (Institute for Adriatic Crops and Karst Reclamation, Croatia). Grapevine physiology facing virus stress: Arbuscular mycorrhiza on the front line

15:15-15:30 Valeriia Belova (Czech Academy of Sciences, Czech Republic). Engineering hyphosphere microbiomes to enhance plant nitrogen acquisition via arbuscular mycorrhizal fungi

15:30-17:15 Coffee break and poster session

17:15-18:30 WG3 session II (Chair: Jan Jansa)

17:15-17:45 Keynote lecture. Lena Neuenkamp (Bielefeld University, Germany). Leveraging root architecture and symbionts for ecosystem understanding and restoration

17:45-18:00 Salme Timmusk (Swedish University of Agricultural Sciences, Sweden). Soil Health and One Health implications in the Anthropocene: A perspective on microbial biotechnology

18:00-18:15 Anukool Vaishnav (Czech Academy of Sciences, Czech Republic). Arbuscular mycorrhizal symbiosis regulates nitrification and enhances nitrogen retention across soil contexts

18:15-18:30 Zoran Mastilo (University of East Sarajevo, Bosnia and Herzegovina). Capital allocation and financial sustainability of regenerative agriculture systems: Economic valuation of plant-soil-microbiome interactions under the EU Green Deal

18:30-19:30 General information about the Action and presentations by WG leaders

20:00-23:00 Guided walking tour and Gala dinner



Friday 15 May 2026

9:00-10:30 WG4 session I (Chairs: Isabel Brito and Marcela Mendoza Suárez)

9:00-9:30 Keynote lecture. Marcel van der Heijden (University of Zurich, Switzerland). Mycorrhiza for sustainable plant production

9:30-9:45 Stephanie Watts-Fawkes (Wageningen University, The Netherlands). Beyond crop yield and nutrition: can mycorrhizal fungi contribute to biofortification?

9:45-10:00 Serghei Sprincean (Moldova State University, Moldova). Ethical and safety aspects in the research of beneficial microorganisms for soil health and agriculture

10:00-10:15 Maria J. Pozo (EEZ-CSIC, Spain). Mycorrhiza Induced Resistance: Functioning and applications in agriculture

10:15-10:30 Juan Ignacio Vílchez (ITQB-NOVA, Portugal). Nature knows first: Learning from tomato exudates to build better SynComs

10:30-11:15 Coffee break

11:15-12:30 WG4 session II (Chairs: Isabel Brito and Vera Karlicic)

11:15-11:45 Keynote lecture. Elisa Pellegrino (Institute of Crop Science, Italy). Field performance of native and exotic AMF consortia: implications for agroecosystem functioning and microbial networks

11:45-12:00 Amaia Nogales (IRTA, Spain). Pathogen infection and mycorrhizal inoculation differentially shape the root-associated microbiome of *Prunus* rootstocks with contrasting susceptibility to white root rot disease

12:00-12:15 Jose Carvalho (Certis, Portugal). Microorganisms registerability: how to transform EU agriculture

12:15-12:30 Lucas Marginedas (IRTA, Spain). Arbuscular mycorrhizal fungi and dark septate endophyte dual inoculation shapes grapevine physiological responses and root carbon exudation under drought stress

12:30-13:00 General information about the Action

13:00-13:30 Update on Horizon Europe Cluster 6 and Mission Soil calls for 2026-2027