ROOT-BENEFIT
Symposium & 3rd MC Annual Meeting, Granada 26

BENEFICIAL MICROORGANISMS FOR SOIL HEALTH AND AGRICULTURE

Program

Root-Benefit
Beneficial root-associated micro-organisms for sustainable agriculture

Funded by the European Union

cost
EUROPEAN COOPERATION IN SCIENCE & TECHNOLOGY

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 Błaszczyk** (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** (Moldava 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