All Actions
Biomedicine and Molecular Biosciences (BMBS)
Chemistry and Molecular Sciences and Technologies (CMST)
Earth System Science and Environmental Management (ESSEM)
Food and Agriculture (FA)
→ In Detail
→ Actions
Forests, their Products and Services (FPS)
Individuals, Societies, Cultures and Health (ISCH)
Information and Communication Technologies (ICT)
Materials, Physics and Nanosciences (MPNS)
Transport and Urban Development (TUD)
Trans-Domain Proposals

FA COST Action 870

From production to application of arbuscular mycorrhizal fungi in agricultural systems: a multidisciplinary approach

Descriptions are provided by the Actions directly via e-COST.

The main objective of the Actions is to take a multidisciplinary approach to increase the knowledge needed for implementation of arbuscular mycorrhizal fungi in agricultural systems, in order to reduce agricultural inputs and reduce losses to the environment.

In previous COST Actions (821, 838), considerable amounts of knowledge and insights on AM fungi have been developed. This COST Action focuses on the use of this obtained knowledge in practical systems.

The COST Action is novel in that it takes a multidisciplinary approach by bringing together diverse scientific areas ranging from applied mycorrhizal research, plant breeding and (low input) arable farming. The synergism that will occur by combining the scientific areas of plant breeding and mycorrhizal research is of particular importance. Plant breeding programmes have resulted in crops that have higher levels of resistance to pathogens, but they seem to show a reduced responsiveness and colonisation of AM fungi. More research on plant breeding is desirable to detect the plant genes involved in mycorrhization with the objective of developing crops with enhanced responsiveness and colonisation of AM fungi, leading to enhanced use of mycorrhizal resources in agriculture, and thereby increasing the sustainability of agriculture.

The secondary objectives of the COST Action are the following:

- To increase application of AM fungi in agricultural systems ranging from low- to high-input systems.

- To identify plant genes which control the responsiveness of crop plants to AM fungi. The aim will be to focus on crops that are of economic value in the participating countries.

- To facilitate the development of AM fungal inoculum with specificity for specific crops under different soil conditions and fertilisation regimes.

- To develop an independent quality control system for AM fungal inoculum.

Food and Agriculture COST Action 870
Description
Parties
Management Committee

General Information*

Chair of the Action:
Dr Jacqueline BAAR (NL)

Vice Chair of the Action:
Prof Yoram KAPULNIK (IL)

Science officer of the Action:
Dr Ioanna STAVRIDOU

Administrative officer of the Action:
Ms Jeannette NCHUNG

Downloads*

Action Fact Sheet
Download AFS as .RTF

Memorandum of Understanding
Download MoU as PDF

Progress Report
Download Progress Report as PDF

Final Report
Download Final Report as PDF

Websites*

Action website:
http://www.cost870.eu/

Domain website:
http://www.cost.eu/fa

* content provided by e-COST.
Data is synchronised once per night.

Publications

Mycorrhiza Works

Spanish Journal of Agricultural Research: Special Issue