



## RELATIONSHIP IN AGROSYSTEMS:

**Mycorrhizal fungi and weeds are in interactions, evaluated were:**

The effect of mycorrhizal fungi on controlling/selecting spontaneous flora in croppingsystems and

the effect of weed community on arbuscular-mycorrhizae infection in croppingsystems as well as

the development of a shared mycorrhizal mycelial network (MMN) among coexisting plants in croppingsystems.



## THE MAIN KEYDRIVERS FOR SUPPORTING OR INHIBITING MYCORRHIZATION ARE:

Weed community composition, diversity and traits, weed mycorrhization, cropping system and management practice



## FUTURE RESEARCH SHOULD FOCUS ON...

field studies, on weed communities and their functional traits as well as on the use of advanced analytical techniques which are able to monitor MMN development and functionality



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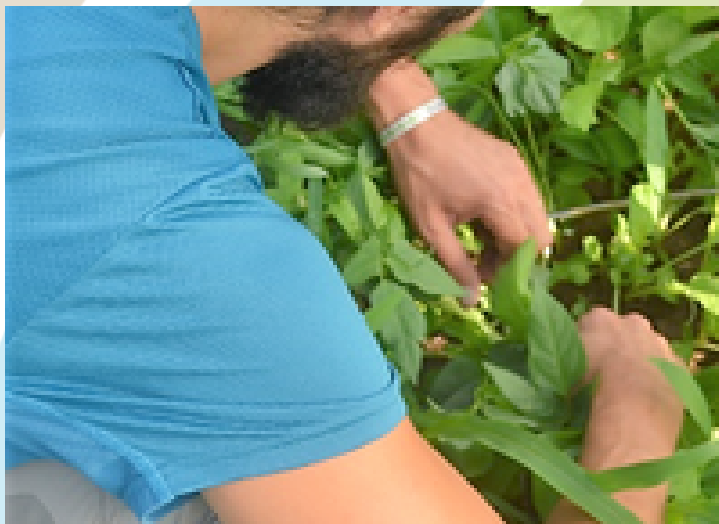
## **WEEDS – AN INSIDIOUS ENEMY OR A TOOL TO BOOST MYCORRHIZATION IN CROPPING SYSTEMS?**



## **Benefit of diversified systems:**

*Highly diversified systems showed significantly higher mycorrhizal colonization of coexisting plants, compared to monocropping.*

# EJP SOIL INNOVATION HIGHLIGHTS



**EJP SOIL**  
**AGROECOseqC**

## TOWARDS CLIMATE-SMART SUSTAINABLE MANAGEMENT OF AGRICULTURAL SOILS

EJP SOIL is a European Joint Programme on Agricultural Soil Management addressing key societal challenges including climate change and future food supply. <https://ejpsoil.eu/>

The goal is to improve the understanding of agricultural soil management by finding synergies in research, strengthening research communities and raising public awareness.

1100+ experts, 24 countries, addressing multiple aspects of soil management across different European agroecosystems.

## EJP SOIL FUNDED PROJECT AGROECOSEQC

*By studying the main actors involved in main biogeochemical processes, AGROECOseqC challenge is to investigate the underlying mechanisms promoting the synchrony between plant demand and nutrient supply by soil microbiome, with the aim to build sustainable agricultural systems where plant, soil fauna and microbial diversity are key drivers to reduce nutrient losses, GHG emission, and increase C sequestration in soil.*

### PROJECT COORDINATOR:

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## TARGET EJP SOIL EXPECTED IMPACT AND EU MISSION SOIL OBJECTIVES

Fostering understanding of soil management and its influence on climate change mitigation and adaptation, sustainable agricultural production and environment.

**SOIL MISSION:** conserve soil organic carbon stocks, prevent erosion, improve soil structure to enhance soil biodiversity.

### HIGHLIGHT FACTS FROM:

EJP SOIL funded project:  
AGROECOseqC



Applicability:  
all climatic zones according to  
Metzger et al. (2005)  
<https://doi.org/10.1111/j.1466-822X.2005.00190.x>

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