EJP SOIL
European Joint Programme

TARGET STAKEHOLDERS

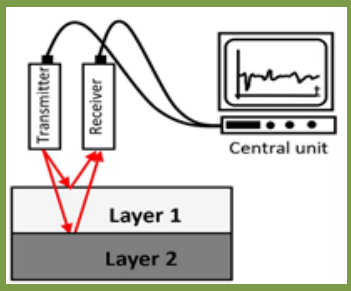
UNMASKING ADAPTION OF TREE ROOT STRUCTURE

IN AGROFORESTRY SYSTEMS IN SWITZERLAND USING GPR*

*ground penetrating radar

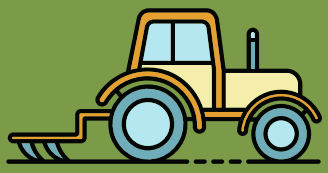
AGROFORESTRY SYSTEMS...

...are more resilient to climate change and offer advantages related to soil health and biodiversity



LIVING SPACE

Arable crops and agroforestry tree roots colonise different soil depths



NO TILLAGE

Most roots found at 0.3-0.55m depth

TILLAGE

Few roots till 0.4m, most roots between 0.6 - 0.75m depth plus additional roots.

Tree rooting systems provide 'safety net' for nutrients and water

AUTHORS

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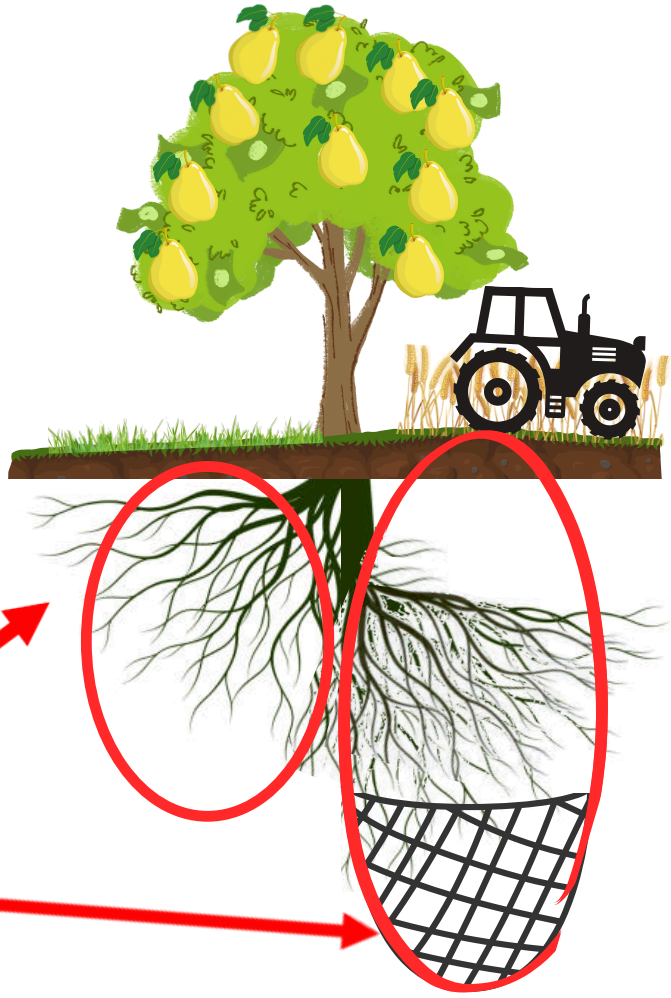

Significant impact of root distribution if tilled or not tilled

Agroforestry trees root deeper: The potential volume of water and nutrient intake was enlarged, which might enhance the resilience of the combined production systems.

EJP SOIL INNOVATION HIGHLIGHTS

EJP SOIL

CARBOSEQ

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
CARBOSEQ

The aim of project CarboSeq is to estimate the feasible SOCsequestration potential taking into account technical and socio-economic constraints. The project is aligned with the current FAO activity for a "global SOC-sequestration potential map" (GSOCseq).

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TARGET EJP SOIL EXPECTED IMPACT AND EU MISSION SOIL OBJECTIVES

Understanding how soil-carbon sequestration can contribute to **climate change mitigation** at the regional level and **accounting for carbon**.

Mission SOIL: conserve soil organic carbon stocks

HIGHLIGHT FACTS FROM:
EJP SOIL funded project:
CarboSeq

Applicability:
Continental, Alpine South and Mediterranean Mountains climatic zones according to Metzger et al. (2005)
https://doi.org/10.1111 j.1466-822X.2005.00190.x

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