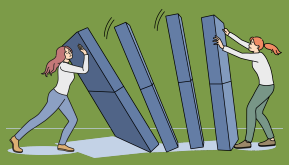
EJP SOIL
European Joint Programme

TARGET STAKEHOLDERS

INCREASING ROOT CARBON INPUT TO AGRICULTURAL SOILS BY VARIETY SELECTION

ROOTS IN THE SPOTLIGHT

Choosing varieties that produce more root biomass can lead to additional carbon input in soils. This might help carbon accrual but could also reduce yields



RESILIENCE THANKS TO ROOTS

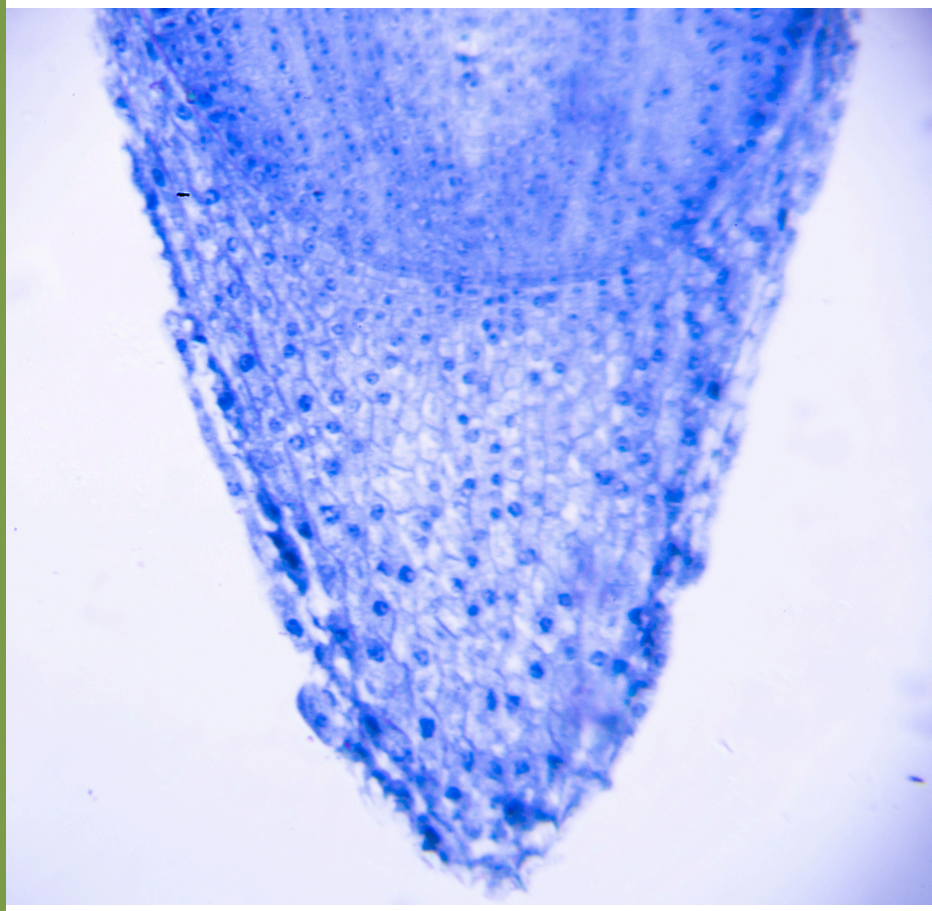
Varieties that grow more abundant and deeper roots can be more resilient to drought and heat stress caused by climate change

STABLE YIELDS

Information from 13 worldwide research projects was gathered. It showed that choosing the right varieties can improve root growth without risking productivity

AUTHORS

Henrike Heinemann, Juliane Hirte, Felix Seidel, Axel Don (2023)



Roots matter

This review shows that optimizing plant variety selection can be a win-win option for increasing root biomass C input to soil while maintaining or even enhancing yield.

EJP SOIL INNOVATION HIGHLIGHTS

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
MAXROOT-C

MaxRoot-C will pioneer assessment methods by providing robust hard data on the root C inputs of main crop varieties and different cover crops across the EU. It will provide policy relevant data on which to base future CAP instruments and contribute to the development of carbon sequestration standards for the EU approved seed lists.

PROGRAMME COORDINATOR:
Rebecca Hood-Nowotny
rebecca.hood@boku.ac.at

TARGET EJP SOIL EXPECTED IMPACT AND SOIL MISSION OBJECTIVES

Fostering the uptake of soil management practices conducive to **climate change adaptation and mitigation.**

Mission SOIL: conserve soil organic carbon stocks

HIGHLIGHT FACTS FROM:
EJP SOIL funded project:
MaxRoot-C

EJP SOIL has received funding from the European Union's Horizon 2020 research and innovation programme: Grant agreement No 862695