



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

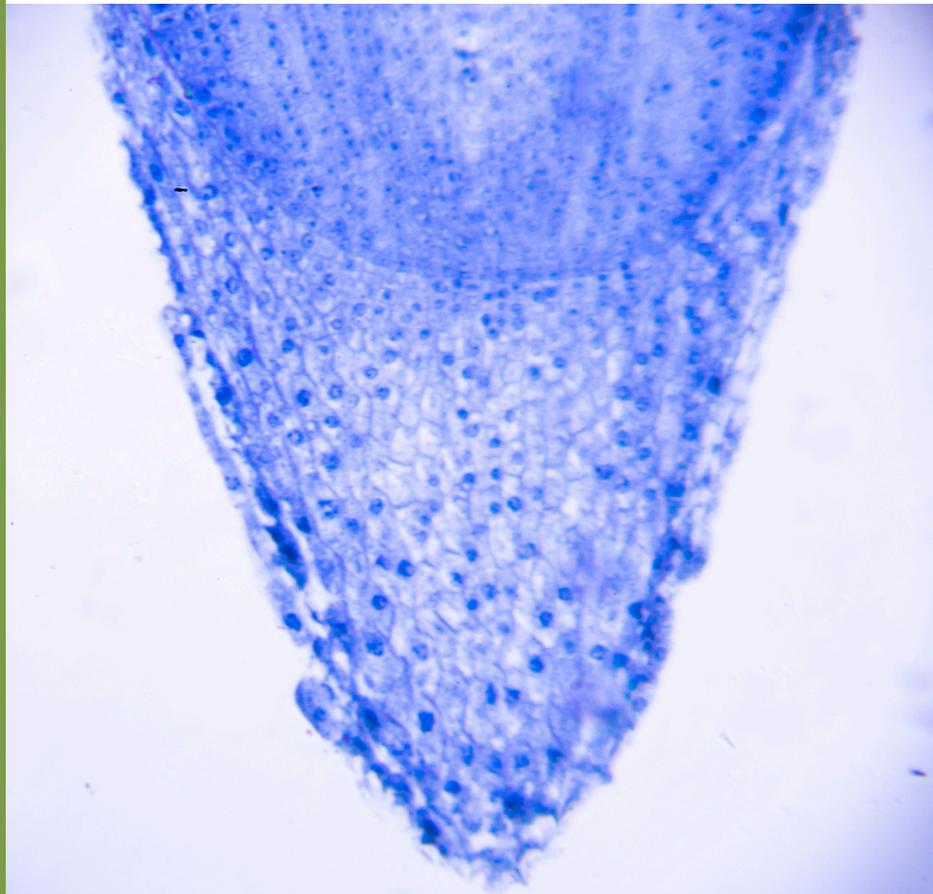


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Felix Seidel, Axel Don (2023)



INCREASING ROOT CARBON INPUT TO AGRICULTURAL SOILS BY VARIETY SELECTION



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.

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TARGET EJP SOIL EXPECTED IMPACT AND EU MISSION SOIL 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



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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