



HOT STUFF

Biochar is a carbon-rich material created from biomass through a process called pyrolysis, which involves heating in the absence or limited presence of oxygen



LONG-LASTING

Adding biochar to soil has been recommended as a lasting and effective method to store carbon and therefore a way to mitigate climate change. This is because biochar's carbon is inherently stable over the long term



PRACTICAL RELEVANCE

The authors assessed the effectiveness of biochar carbon sequestration using published data. The results could potentially govern the practical implementation of future large-scale biochar field applications



AUTHORS

Leonor Rodrigues, Alice Budai,....
Jens Leifeld (2023)

THE POWER OF PYROLYSIS: BIOCHAR QUALITY AND YIELD FOR SOIL CARBON SEQUESTRATION IN PRACTICE



Carbon from plant to biochar

The carbon sequestration efficiency for stable biochar falls within the range of 25% to 50% of the carbon content present in the pyrolyzed plant material and varies among materials. The production and application of biochar in practice will depend on the availability and cost of the organic materials used as feedstock.

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

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