

Special Issue

Microbial Carbon and Its Role in Soil Carbon Sequestration

Message from the Guest Editors

The agroecosystem plays an important role in terrestrial carbon cycling. Soil carbon sequestration in cropland can not only offset fossil fuel emissions but also contributes to regional food security. Furthermore, soil microorganisms are ubiquitous and crucial participants in maintaining ecosystem functioning, such as soil organic matter decomposition, aggregate stabilization, nutrient cycling, and interactions with plants. Although microbial biomass carbon accounts for a small proportion of soil carbon content, it is considered as a transitional carbon repository responsible for carbon decomposition and sequestration.

With this Special Issue of *Agronomy*, we seek to gather integrative studies that shed light on microbial carbon fluxes and their roles in soil carbon sequestration. Furthermore, we encourage contributions that make use of state-of-the-art technologies, including stable and radioactive isotopes, multi-omics technology, big data or meta-analysis, and numerical modelling, to elucidate the microbial mechanisms of soil carbon sequestration in agricultural ecosystem.

Guest Editors

Dr. Xuechen Yang

Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, Ürümqi, China

Dr. Xiaojing Hu

Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, China

Deadline for manuscript submissions

closed (31 March 2026)



Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



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Agronomy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agronomy@mdpi.com

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Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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