Special Issue

Optimizing Soil Fertility and Carbon Management in Cereal-Based Systems

Message from the Guest Editor

Soil fertility and carbon management are crucial for sustainable agricultural productivity, especially in cereal-based systems vital for global food security. This Special Issue of *Plants* explores strategies to optimize soil fertility and enhance carbon sequestration, focusing on nutrient management, soil organic matter dynamics, and sustainable practices to improve soil health and combat climate change. It addresses challenges like soil degradation, greenhouse gas emissions, and nutrient imbalances, offering insights for researchers, practitioners, and policymakers working toward resilient agroecosystems. Topics include:

- Soil amendments and organic matter management
- Carbon sequestration in cereal systems
- Precision agriculture for nutrients
- Sustainable rotations and intercropping
- Soil microbiomes' role in fertility and carbon cycling

This work advances understanding of plant–soil interactions and sustainable agriculture, linking fundamental science with applied research to foster innovation in crop and soil management and support global climate goals.

Guest Editor

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Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

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