



Soil Organic Matter's Alleviation of Heavy Metal Toxicity in Plants

Guest Editors:

Dr. Muhammad Farooq Qayyum

Department of Soil Sciences,
Bahauddin Zakariya University,
Multan, Pakistan

Dr. H. Kate Schofield

School of Geography, Earth and
Environmental Science,
University of Plymouth,
Plymouth, UK

Dr. Ghulam Haider

Department of Plant
Biotechnology, Atta-Ur-Rahman
School of Applied Biosciences,
National University of Sciences
and Technology (NUST),
Islamabad 44000, Pakistan

Deadline for manuscript
submissions:

closed (20 May 2022)

Message from the Guest Editors

Heavy metals are considered potentially toxic elements (PET) for living organisms. Remediation of metal-contaminated soils is inevitable for crop productivity and safe food. Soil organic matter (SOM) is considered vital for soils as its conversion into humus provides a reservoir for the plant nutrients available in the soil for balanced plant growth. Not only a source of readily available nutrients, SOM also provides highly reactive functional groups and charged species which may act as chelating agents for metals. The binding of heavy metals with SOM may reduce their bioavailability and ultimately toxicity to crop plants. There is dire need for updated research in this regard.

The present Special Issue is focused on:

- Strategies involved especially using soil organic matter to reduce metal stress in crop plants
- Effect of different sources of organic matter on metals bioavailability to crop plants
- Mechanisms involved in interaction of different metals with organic functional groups
- Economic evaluation of organic amendments for reducing metals bioavailability





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Steve W. Lyon

School of Environment and
Natural Resources, Ohio State
University, Columbus, OH 43210,
USA

Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international open access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. The journal publishes original research articles, reviews, conference proceedings (peer reviewed full articles) and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

Author Benefits

Open Access: free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE](#) and [SSCI \(Web of Science\)](#), [GEOBASE](#), [GeoRef](#), [Inspec](#), [RePEc](#), [CAPlus / SciFinder](#), and [other databases](#).

Journal Rank: JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)

Contact Us

Sustainability Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/sustainability
sustainability@mdpi.com
[X@Sus_MDPI](https://twitter.com/Sus_MDPI)