Special Issue

Advances in Soil Structure, Compaction Mitigation, and Root-Soil Interactions in Modern Cropping Systems

Message from the Guest Editor

Soil compaction has historically been a major limitation to agricultural productivity, driving a critical focus on soil structural and its relatioship with root-soil interactions essential for sustainable land use. This Special Issue aims to advance effective compaction mitigation strategies, the assessment and enhancement of soil structural quality, and the complex dynamics of root-soil interactions within modern cropping systems. We welcome contributions exploring innovative approaches, including advanced biophysical modeling, novel in situ monitoring technologies, and efficacy of sustainable management practices such as conservation agriculture and regenerative agriculture. The collection will integrate fundamental soil physics, experimental field research, advanced modeling approaches, and practical management innovations. We encourage submissions detailing robust field measurements, controlled laboratory experimentation, computational modeling, and rigorous validation of management interventions across diverse agroecosystems.

Guest Editor

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Editor-in-Chief

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