

Special Issue

From Nano to Bio-Based Solutions for Preserving Soil Health in Agroecosystems

Message from the Guest Editors

Healthy soils are vital to global food security, yet human activities and unsustainable practices threaten soil quality. With 95% of food production depending on soils and the global population projected to reach 10.4 billion, balancing agricultural intensification with ecological preservation is essential. This Special Issue explores innovative strategies, including nano-agrochemicals and bio-based solutions, that enhance productivity and food quality while minimizing soil degradation and restoring soil health, indirectly benefiting human health. We welcome studies evaluating the effectiveness and safety of agriproducts in soil ecosystems—such as nano/bio-fertilizers, nano/bio-pesticides, biocontrol agents, organic amendments, and biostimulants—that improve plant nutrient efficiency, protect against pests, induce stress tolerance, and reduce chemical input reliance. Interdisciplinary research bridging agronomy, ecotoxicology, microbiology, chemistry, and soil science is encouraged.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

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