

Special Issue

Environmental Contaminants: Impacts and Responses in Plant and Soil Systems and Their Remediation Strategies

Message from the Guest Editor

The accumulation of contaminants in the soil triggers plant responses with a far-reaching impact on animals and humans via the food chain. As a primary reservoir of environmental contaminants, most agricultural soils have witnessed alterations in their physicochemical properties, leading to changes in the soil microbial community, which plays a vital role in nutrient cycling. They also affect key enzymatic activities—dehydrogenase, urease, and phosphatase—which are major bioindicators of soil health. Elucidating the mechanistic underpinning plant and soil responses to contaminants will not only advance our understanding of ecological resilience, but also provide an informed decision and perspective on innovative and sustainable strategies for pollutant remediation via an understanding of activities in the plant–soil–microbial nexus. We invite manuscript submissions on topics related to but not limited to plant responses to environmental stress, plant biology and biochemistry, environmental contaminants and remediation, per- and polyfluoroalkyl substances (PFAS), emerging contaminants, and phytotoxicity, among others.

Guest Editor

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closed (28 February 2026)



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About the Journal

Message from the Editor-in-Chief

The *International Journal of Plant Biology* will publish regular research papers, reviews, short communications and opinion papers. The aim is to provide a platform for publication, information and debate, encompassing all areas that fall within the scope of plant biology. Indeed, the *International Journal of Plant Biology* will deepen plant research at all levels, from the molecular to the whole plant and community scales, including bioinformatics and modeling approaches. We will particularly highlight the importance of contributions to current topics, such as plant–plant communication, protection of plant biodiversity and plants in urban environments.

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