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Root Development, Physical and Nutritional Stress in Plants

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Deadline for manuscript submissions:

closed (30 September 2023)

Message from the Guest Editors

Dear Colleagues,

Root development, in terms of root system architecture, i.e., size and shape, together with micro-traits (such as root hairs and a relative capacity to take up individual nutrients via uptake channels), is key within the complex system of the soil–plant continuum that influences plant nutritional status. Roots influenced by genotype are also highly influenced in their development by their environment. Natural soil environments can be very heterogenous, in terms of physical and nutrient status, in contrast to many contained environment systems used for screening root systems. There is still uncertainty surrounding the impacts of root traits in these plant–soil systems in terms of nutrient flows, and how we can ensure that crops are future-proofed to maintain yields and ensure nutritious crops in line with the UN sustainability goals.

This Special Issue aims to highlight adaptive root (and plant) traits that influence the optimal uptake and utilization nutrients from the soil in a wide range of environments.



mdpi.com/si/130968

Special Issue



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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.

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