Special Issue

Plant-Water Relations in Responses to Environmental Stresses

Message from the Guest Editors

The ability of plants to maintain a fine water balance when facing different environmental stresses is critical to ensuring their survival, growth, and productivity. Maintenance of the water soil–plant–atmosphere continuum involves well-orchestrated multi-level plant responses ranging from molecules to a whole plant. Stomatal regulation of water transport and the regulation of tissue hydraulic conductivity by aquaporins have been widely studied as the key factors involved in maintaining plant water balance under stress. However, many aspects of water relations in plants exposed to environmental stresses remain poorly understood. This Special Issue aims at covering different aspects of water transport in plants under stress, such as the control of transpiration, root water uptake and xylem transport, regulation of cell turgor, aquaporin function, root architecture, regulation of hormonal pathways, and stress signaling molecules.

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Deadline for manuscript submissions

closed (31 May 2022)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/87716

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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