

Special Issue

Metabolic Regulation and Gene Expression of Crops under Stress

Message from the Guest Editor

In response to adverse environmental stressors, crops undergo adaptation, i.e., long-term evolutionary changes, and acclimation, i.e., short-term adjustment processes. Understanding the underlying dynamics and mechanisms of such alterations that enable crops to survive stressful environments and evaluating genetic variation in stress tolerance are prerequisites for breeding stress-resistant cultivars. Targeted metabolite profiling provides a functional link between the pre-defined intermediate or final products of crop responses and environmental changes such as biotic and abiotic stresses. Furthermore, when metabolomics is integrated with other profiling technologies, such as transcriptomics and proteomics, it becomes an even more invaluable means of evaluating and screening germplasm collections for crop breeding programs. This Special Issue focuses on the metabolic regulation and gene expression of crops under stress and the evaluation of the germplasm for crop breeding purposes. Research articles can cover a broad range of crops, including not only agronomic crops but also horticultural crops such as vegetables, fruits, ornamentals, and lawn grasses.

Guest Editor

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Deadline for manuscript submissions

closed (25 July 2023)



Agriculture

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Impact Factor 3.6
CiteScore 6.3



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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, scholarly and scientific open access journal publishing peer-reviewed research papers, review articles, communications and short notes that reflect the breadth and interdisciplinarity of agriculture.

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