Special Issue

Biosystematics and Breeding Application in Triticeae Species

Message from the Guest Editors

The Triticeae tribe, encompassing staple crops such as wheat, barley, and rye, accounts for over 30% of global calorie intake. Its wild relatives (e.g., Aegilops, Thinopyrum) represent invaluable genetic reservoirs for enhancing disease resistance, stress tolerance, and vield-related traits. However, the evolutionary relationships within this tribe remain complex and inadequately understood, hindering the systematic exploitation of its genetic resources. Recent advances in high-throughput sequencing, phylogenomics, and cytogenetic technologies provide unprecedented tools to decode Triticeae's evolutionary history and translate these insights into breeding innovations. This Special Issue, titled 'Biosystematics and Breeding Application in Triticeae Species', seeks to bridge the gap between evolutionary biology and applied agricultural research, fostering interdisciplinary approaches to harness the tribe's potential for sustainable crop improvement.

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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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