

Special Issue

Resistance-Related Gene Mining and Genetic Improvement in Crops

Message from the Guest Editors

With climate change and environmental degradation, crops are facing increasingly severe non-biological stressors. Scientists explore drought-resistant genes through genetic improvement to enhance crop adaptability and yield stability. In recent years, utilizing molecular biology and genomics technologies has led to the successful discovery of multiple key drought-resistant genes, which have been introduced into crops through transgenic or hybrid breeding methods, achieving some breakthroughs. However, challenges remain, including insufficient depth in gene exploration, incomplete understanding of gene functions, and concerns about the safety of transgenic crops. Future efforts should focus on strengthening fundamental research, delving deeper into drought resistance mechanisms, exploring new genetic improvement approaches, and prioritizing ecological risk assessments.

In this Special Issue, we are soliciting research articles on novel and underexplored crop stress resistance-related genes, as well as comprehensive reviews offering unique insights into resistance against non-biological stressors in major crops.

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Editor-in-Chief

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