

## Special Issue

# Molecular Strategies for Improved Crop Performance

### Message from the Guest Editor

Increasing crop yield and quality is essential for meeting future food demand and security. Plant breeding aims to genetically enhance crops through the application of Mendelian genetics principles and modern tools and techniques in cellular and molecular biology. Recently discovered advances in molecular genetics have opened new opportunities to speed up plant breeding. Molecular strategies, including genetic engineering, marker-assisted breeding, and genome editing, have emerged as powerful tools for enhancing crop yield and quality by targeting key genes and pathways involved in plant growth, development, and stress responses. Accelerated crop improvement could naturally evolve traits and quality to yield the production systems that are needed to ensure future harvests. This Special Issue would like to bring together the latest molecular strategies, tools, and techniques of molecular genetics in crop improvement performance, focusing on their principles, applications, and recent advances. This could be beneficial for plant breeders to choose the appropriate techniques suited for the needs of their respective breeding programs.

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### Guest Editor

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### Deadline for manuscript submissions

closed (10 July 2025)



## Current Issues in Molecular Biology

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#### Editor-in-Chief

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