

Special Issue

Molecular Mechanisms Underlying Kernel Development in Cereal Crops

Message from the Guest Editors

Cereal crops such as rice, wheat, maize, and barley form the foundation of food security, and their kernel size, weight, composition, and overall yield are complex traits determined by a tightly coordinated developmental program. This program encompasses a series of critical events, including floral initiation and patterning, pollination, double fertilization, endosperm development and cellularization, starch and protein synthesis and accumulation, and grain filling and maturation. Understanding the molecular networks that regulate these events is paramount for future genetic improvement and breeding strategies. This collection of research and review articles aims to provide a comprehensive platform for the latest advancements in this field. The key topics explored include the roles of key transcriptional regulators, phytohormone signaling pathways, epigenetic modifications, and nutrient partitioning during grain development.

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Message from the Editor-in-Chief

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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