Special Issue

Innovations and Advances in Rice Molecular Breeding

Message from the Guest Editors

With the rapid development of DNA markers, gene mapping and cloning in the last three decades, research on rice has made great progress in terms of improving grain yield, nutrition quality and environmental performance, achieving substantial progress for global food security. However, the balance of yield, cooking and taste quality and disease resistance is a daunting challenge in crop breeding due to the antagonistic relationship between these aspects. The biggest bottleneck is to develop and utilize genomic technologies, based on germplasm resource mining and functional genomics dissection, which would greatly facilitate more efficient and precise breeding. This Special Issue focuses on the most recent innovations and advances in rice molecular breeding, aiming to achieve high and stable yield, superior quality, multi-resistance, wide adaptability and simplified cultivation. This issue will cover a broad range of molecular breeding approaches, including, but not limited to, functional marker-assisted selecting, gene pyramiding, rational design, GWAS, artificial intelligence and genome editing.

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Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

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