Special Issue

Molecular Markers and Marker-Assisted Breeding in Wheat

Message from the Guest Editors

Wheat, as a dominant cereal crop, is one of the most important staple foods. In 2020/2021, it was grown on about 219 million hectares of land, with around 764 million metric tons of grain being produced worldwide. Globally, 19% of the calorie demand and 20% of the protein demand are fulfilled by wheat production. Thanks to the development of new varieties by advanced breeding technology, especially using molecular markers in breeding, which greatly facilitate the selection process, the yield potential of wheat has increased significantly. The global population is expected to reach 9.8 billion by 2050, and an annual gain of ~2% in grain yield and a ~50% cumulative increase in the next 20 years are necessary to meet the predicted demand. Increasing the yield per unit area, improving the quality, and making crops more resilient to climate change by genetic improvement is the only way to meet this demand. Molecular markers and molecular assisted breeding will become more and more important in wheat genetic improvement to ensure human food security.

Guest Editors

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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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