

## Special Issue

# Identification and Validation of Quantitative Trait Loci for Important Agronomic Traits in Food Crops

### Message from the Guest Editors

A quantitative trait is generally controlled by several genes. Therefore, quantitative traits are usually detected by quantitative trait loci (QTL) or genome-wide association (GWAS) analyses. The important agronomic traits of food crops, such as plant height, thousand kernel weight, tiller number, kernel number per spike, and even several resistance traits, are typical quantitative traits. The analysis of these quantitative traits is of great significance for ensuring the high yield, disease resistance, as well as marker-assisted selection (MAS) of food crops. The objective of this Special Issue is to publish articles detailing progress in research involving QTL or GWAS analyses of food crops. Review and original research articles are both welcome on the following topics of interest: QTL analysis of important agronomic or disease resistance traits of food crops; GWAS analysis of important agronomic or disease resistance traits; Meta-QTL analysis of important agronomic or disease resistance traits; New methods/new phenotyping tools/new genomic tools/new strategies aimed at increasing resolution in the detection of QTL in food crops; Molecular marker design and validation of QTL;

### Guest Editors

Dr. Tianheng Ren

Prof. Dr. Pengtao Ma

Dr. Fahimeh Shahinnia

### Deadline for manuscript submissions

closed (30 August 2023)



## Plants

an Open Access Journal  
by MDPI

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/123980](https://mdpi.com/si/123980)

*Plants*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[plants@mdpi.com](mailto:plants@mdpi.com)

[mdpi.com/journal/  
plants](https://mdpi.com/journal/plants)





# Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/journal/  
plants](https://mdpi.com/journal/plants)



## About the Journal

### 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.

---

### Editor-in-Chief

Prof. Dr. Dilantha Fernando  
Department of Plant Science, University of Manitoba, Winnipeg, MB  
R3T 2N2, Canada

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)