

Special Issue

Genetic Diversity and Pathogenic Mechanisms in Plant Pathogenic Bacteria

Message from the Guest Editor

Food security is a critical global issue, with plant bacterial diseases posing significant threats to crop safety, quality, and yield, resulting in major economic losses. Understanding the genetic diversity of plant pathogenic bacteria and their mechanisms of infection can aid in identifying new control targets, potentially leading to the development of novel chemical or biological pesticides. This Special Issue aims to explore the latest advances in the genetic diversity and pathogenic mechanisms of plant bacterial diseases, focusing on the discovery of new control targets. It will cover four key areas: 1) Population genetic analysis of bacterial pathogens in crop diseases; 2) Diversity and pathogenic mechanisms in horticultural crop diseases; 3) Prediction and design of new control targets using structural biology, molecular docking, and related technologies; 4) Cutting-edge technologies in the isolation and detection of pathogens based on genetic diversity and pathogenic mechanisms; 5) Development of inhibitors targeting key pathogenic systems, including the type III secretion and quorum sensing systems.

Guest Editor

Dr. Xiaolong Shao

College of Plant Protection, Nanjing Agricultural University, Nanjing 210095, China

Deadline for manuscript submissions

closed (31 July 2025)



Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



mdpi.com/si/205666

Agronomy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agronomy@mdpi.com

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





Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



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



About the Journal

Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet.

Agronomy is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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), PubAg, AGRIS, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Agronomy and Crop Science)