



## Regulatory Mechanism of Growth Regulators on Crop Growth and Development

Guest Editor:

**Prof. Dr. Allan Klynger Da Silva Lobato**

Núcleo de Pesquisa Vegetal  
Básica e Aplicada, Universidade  
Federal Rural da Amazônia,  
Rodovia PA 256, Paragominas,  
Pará, Brazil

Deadline for manuscript  
submissions:

**closed (31 July 2024)**

### Message from the Guest Editor

Climate change is increasing the frequency of extreme events, such as droughts and heat waves, limiting the growth and yield of relevant food crops, as well as threatening global food security. On other hand, plant growth regulators (PGRs) are organic or synthetic molecules, microorganisms, and chemical elements that affect plant metabolism. Therefore, in the current world scenario, research and solutions using brassinosteroids, gasotransmitters, microorganisms, phytohormones, neurotransmitters, and essential elements are strategies for ensuring food security improving plant tolerance to climate change.

This Special Issue welcomes novel research and reviews covering all topics related (but not limited) to action mechanisms modulated by organic or synthetic molecules, microorganisms, and chemical elements aiming to mitigate several stresses, including drought, flooding, salinity, toxic metals, low or high temperature, low or high irradiance, acid rain, and nutritional stress.





an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Leslie A. Weston**

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

## 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.

## 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 (Plant Sciences) / CiteScore - Q1 (Agronomy and Crop Science)

## Contact Us

---

*Agronomy* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/agronomy](http://mdpi.com/journal/agronomy)  
[agronomy@mdpi.com](mailto:agronomy@mdpi.com)  
[X@Agronomy\\_Mdpi](https://twitter.com/Agronomy_Mdpi)