



## Developments in the Genetics and Breeding of Banana Species

Guest Editors:

**Dr. Sébastien Ricci**

CIRAD, TA A-108/01, Avenue  
d'Agropolis, F-34398 Montpellier  
Cedex 5, France

**Prof. Dr. Rodomiro Ortiz**

Department of Plant Breeding,  
Swedish University of Agricultural  
Sciences, SE 2 3053 Alnarp,  
Sweden

**Dr. Nicolas Roux**

Alliance of Bioversity  
International and CIAT, Europe –  
Montpellier Office, Parc  
Scientifique Agropolis II, 34397  
Montpellier, France

Deadline for manuscript  
submissions:

**20 May 2025**

### Message from the Guest Editors

Banana breeding aims to develop improved cultivars with resistance to major pathogens and pests, while maintaining agronomic performance and fruit quality; this may contribute to the sustainability of their production, by reducing the negative environmental impacts of industrial plantations. However, banana breeding is particularly complex, since cultivars need to be sterile to produce seedless edible fruits. The genome complexity of banana cultivars (interspecificity, polyploidy and high levels of genetic and structural heterozygosity), and the lack of knowledge on the genetics of the targeted traits, are further challenges posed to banana crossbreeding.

This Special Issue on “Developments in the Genetics and Breeding of Banana Species” will thus focus on scientific and technical advances in the field of banana’s conventional breeding, genetics and genomics; this will facilitate and accelerate the development of cultivars that meet the expectations of the markets, both today and in the future.





an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Luigi De Bellis

Department of Biological and Environmental Sciences and Technologies, Università del Salento, Centro Ecotekne, Via Provinciale Lecce Monteroni, 73100 Lecce, Italy

## Message from the Editor-in-Chief

Horticultural plants and their products provide sustenance, health, and beauty. A confluence of factors is putting increasing pressure on horticultural production to evolve, and innovative research is addressing these challenges. *Horticulturae* provides a venue to communicate research results in a rapid manner with open access, allowing everyone the opportunity to stay abreast of leading research addressing horticulture. I invite you to consider publishing the results of your research in this high quality, peer-reviewed journal.

## 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, FSTA, and other databases.

**Journal Rank:** JCR - Q1 (Horticulture) / CiteScore - Q2 (Horticulture)

## Contact Us

---

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

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/horticulturae  
horticulturae@mdpi.com  
X@Horticul\_MDPI