



an Open Access Journal by MDPI

# Advances in Research for Legume Breeding and Genetics

Guest Editors:

#### Dr. Carolina Ballen Taborda

College of Agriculture, Forestry & Life Sciences, Clemson University, Florence, SC 29634, USA

#### Dr. Sergio Sebastian Samoluk

Instituto de Botánica del Nordeste (UNNE-CONICET), Corrientes, Argentina

#### **Dr. Maricel Podio**

Instituto de Investigaciones en Ciencias Agrarias de Rosario (IICAR-CONICET–UNR), Zavalla (Santa Fe), Argentina

Deadline for manuscript submissions: closed (31 May 2022)



### Message from the Guest Editors

Legumes (family *Fabaceae*) comprise a large family of plants grown worldwide, which are second in importance after cereals for human consumption and animal feed. Legumes represent a solution for global food and nutritional security. In addition to food and fodder uses, legumes have the ability to fix nitrogen, which decreases the need for application of N-fertilizers, making them economically profitable and sustainable crop species. In comparison with cereal crops, legumes have not been a research priority and improvements in yield unfortunately continue at a slow pace. Major constraints for legume production and quality include biotic pressure and abiotic stresses.

This Special Issue of *Plants* is to collate papers that describe recent advancements in the breeding, genetics, and genomics of legume crops. We would like to highlight efforts toward the development of improved high-yield varieties harboring resistance or tolerance to stresses by including topics such as exploration and use of germplasms to broaden genetic bases, pre-breeding, mapping of qualitative and quantitative traits, and the integration of new technologies and strategies into mapping and breeding workflows.







an Open Access Journal by MDPI

## **Editor-in-Chief**

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

### 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 community.

# **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)

### **Contact Us**

*Plants* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/plants plants@mdpi.com X@Plants\_MDPl