



## The Genetic Basis for Seed Quality Traits in Legumes

Guest Editors:

**Prof. Claire Domoney**

Department of Metabolic Biology,  
John Innes Centre, Norwich  
Research Park, Colney, Norwich  
NR4 7UH, UK

**Dr. Alfonso Clemente**

Department of Physiology and  
Biochemistry of the Animal  
Nutrition, Estacion Experimental  
del Zaidin, Spanish National  
Research Council (CSIC),  
Granada, Spain

Deadline for manuscript  
submissions:

**closed (31 March 2020)**

### Message from the Guest Editors

The genetic basis for variation in legume seed components has been investigated over many years, but, with the increasing availability of genomic sequences, the overall control of seed storage product accumulation and the genes underlying many quantitative trait loci associated with variation might be deciphered. Genetic improvement in seed quality traits is being explored, including through modification of starch and protein type and amino acid profile, and through elimination or diminution of antinutrients, such as protease inhibitors, phytate, and vicine/convicine. The exploration of germplasm resources and the discovery and generation of novel allelic variation in candidate genes is underpinning these advances.

In this Special Issue, articles (which may be original research papers, hypotheses, perspectives, reviews, or opinions) are invited on the genetics and genomics of seed quality traits in legume/pulse crops, related to nutrition and market preference; health promotion; the control of seed product accumulation, including amino acids and sugars; and the exploration and use of novel germplasm.





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 commentaries on topics of interest to the plant research 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](http://www.mdpi.com)

[mdpi.com/journal/plants](http://mdpi.com/journal/plants)  
[plants@mdpi.com](mailto:plants@mdpi.com)  
[X@Plants\\_MDPI](https://twitter.com/Plants_MDPI)