Special Issue

Genetics, Genomics and Bioengineering of Improved Legume Crops

Message from the Guest Editor

Legumes are hardy plants that can grow in nitrogenpoor soils under harsh environmental conditions, where they provide good sources of food, fiber, and biomass. This Special Issue will address current progress and genetic approaches to:

- Surveying the fitness, geographic distribution, and genomic and phenotypic diversity of wild and domesticated legumes.
- Identifying adaptive phenotypes and genotypes that facilitated the spread of wild species into harsh environments.
- Evaluating the interactions of legumes with nonlegume plants, directly and through the soil microbiome.
- Improving responses to biotic stresses caused by common pathogens and pests.
- Enhancing tolerance to abiotic stresses, such as drought, heat, soil salinity, and cold.
- Improving the quantity, nutritional quality, and postharvest properties of legumes cultivated for forage and seed.
- Improving plant nutrition via biofortification and the genetic engineering of root symbioses with rhizobia and arbuscular mycorrhizal fungi.
- Developing new tools for the genomic analysis and bioengineering of common and less-traditional legume crops.

Guest Editor

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Deadline for manuscript submissions

closed (10 March 2023)



Agriculture

an Open Access Journal by MDPI

Impact Factor 3.6 CiteScore 6.3



mdpi.com/si/110094

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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. Agriculture is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

Editor-in-Chief

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