

Special Issue

Crop Breeding and Genetics

Message from the Guest Editors

The global nature of food security becomes more important due to increased population, demand for products and climate change. These problems suggest we need a new green revolution. As the ultimate goal of plant breeding is to improve crop performance for traits or defined characteristics and to address the problems arising and due to the nature of the changes we should exploit all available methods in our hands. We live in the era of omics technologies. Next generation sequencing techniques now allow the massive sequencing of whole genomes and all the varieties in a species, coupled with phenotyping and conventional plant breeding allows us to identify the mechanisms underlying different plant functions and the corresponding genes. While metagenomic analysis offers new insights on soil microbiota plant interactions very important for plant breeding. Finally, novel techniques such as CRISPR/cas9 systems could revolutionise both our understanding of gene function as well plant breeding.

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Deadline for manuscript submissions

closed (15 May 2021)



Agriculture

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Impact Factor 3.6
CiteScore 6.3



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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, scholarly and scientific open access journal publishing peer-reviewed research papers, review articles, communications and short notes that reflect the breadth and interdisciplinarity of agriculture.

Editor-in-Chief

Prof. Dr. Les Copeland
Sydney Institute of Agriculture, School of Life and Environmental
Sciences, The University of Sydney, Sydney, NSW 2006, Australia

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