

## Special Issue

# From Phenotyping to Phenomics—Techniques for Exploring Plant Traits and Diversity

### Message from the Guest Editor

Due to the recent surge in food consumption and the need for global nourishment of the fast-growing world population, breeding better adapted crops for the future is imperative. The complex interactions of plants with several factors—including their genes as well as soil, climate, pests, and humans—determines their final overall performance. In the last decade, a revolution in phenotyping approaches as well as digital technologies have enabled researchers to start collecting high-quality and repeatable phenotypic data to almost the same extent as genomic data. Employing machine vision for discriminating useful data from sensors and cameras is now a norm for monitoring plant phenotype over time. These techniques also enable researchers to integrate plant analyses into a monitoring system which also includes soil and environment data. This Special Issue aims to bring together a range of research papers that cover plant phenotyping at large scale, from hundreds of genotypes using simple and repeatable technology to small scale using high tech and accurate methods and anything in between.

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### Guest Editor

Dr. Kioumars Ghamkhar

Plant Genetics, AgResearch, Grasslands, Palmerston North, New Zealand

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### Deadline for manuscript submissions

closed (31 January 2022)



## Plants

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## About the Journal

### 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.

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### Editor-in-Chief

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