Special Issue

Field Capture and Automatic Image Analysis for Crop Breeding and Disease Monitoring

Message from the Guest Editor

The measurement of field crops has been tackled using satellite, drone, and ground-based imagery. Each approach has a different resolution, capture speed and method of analysis. Recent hardware has made it possible to produce millimeter resolution images of field-grown crops with two- and three-dimensional capture systems. Critical to the success of any imaging hardware are the algorithms for converting images or point-cloud representations into crop yield, dimensional, or plant health. In this Special Issue, we would like to focus on the latest development in field applicable image capture and corresponding analysis algorithms. Hardware platforms can include 2/3D imaging, Lidar, hyperspectral, and IR with accompanying analysis algorithms using conventional or machine learning. We would like to include specific references to the metrology and quality of measurement at the forefront of these approaches to provide confidence in measurement and analysis to potential adopters of the technology.

Guest Editor

Dr. Richard Dudley
National Physical Laboratory, Queens Road, Teddington, Middlesex, London TW11 0LW, UK

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Agronomy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agronomy@mdpi.com

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Editor-in-Chief

Prof. Dr. Leslie A. Weston
Gulbali Centre for Agriculture, Water and Environment Research, Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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