# **Special Issue**

# Intelligent Detection and Classification of External Traits in Crop Plants, Fruits, and Vegetables

# Message from the Guest Editors

A technological revolution is currently taking place in agriculture, termed 'Agriculture 4.0'. Modern, intelligent solutions are being introduced, mainly based on the digitalization of production processes and the classification and qualitative assessment of agricultural crops, fruit, and vegetables. Intelligent solutions are extremely helpful for extracting quality characteristics of agricultural products based on shape, color, texture, and light spectrum. Texture, shape, and color characteristics of agricultural products are used to detect damaged apple or orange areas, weeds, and pests. Computer image analysis has become one of the main techniques used in agriculture to assess seeds and grains in terms of quality losses.

In this Special Issue, we aim to exchange knowledge on precision agriculture, the use of computer systems in agricultural production, the application of artificial neural networks and image analysis for qualitative and quantitative classification of field crops, vegetables, and fruit, and the use of genetic algorithms to manage machinery and evaluate its efficiency.

### **Guest Editors**

Dr. Baohua Zhang

Dr. Yuxing Han

Prof. Dr. Piotr Rybacki

Prof. Dr. Janetta Niemann

### Deadline for manuscript submissions

31 January 2026



an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 6.7



mdpi.com/si/216537

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

mdpi.com/journal/agronomy





an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 6.7



# **About the Journal**

# Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet. Agronomy is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

### Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research, Charles Sturt University, Wagga Wagga, NSW 2678, Australia

## **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), PubAg, AGRIS, and other databases.

# **Journal Rank:**

JCR - Q1 (Agronomy) / CiteScore - Q1 (Agronomy and Crop Science)

