Special Issue

Precision Agriculture in Intensive Grain Production Systems

Message from the Guest Editors

Confronting the dual challenges of escalating global food demand and mounting resource and environmental constraints, precision agriculture has emerged as a core pathway for achieving sustainability in grain production systems. This Special Issue aims to present cutting-edge research and innovative applications of precision agriculture in intensive cereal systems, such as wheat, maize, and rice. It will explore the entire agricultural value chain, spanning from field-level sensing and variable-rate technology to farm-scale logistics and comprehensive sustainability assessment. We welcome submissions of original research and review articles on topics including, but not limited to, the following areas:

- Artificial intelligence and machine learning for yield prediction, disease detection, and decision support.
- High-resolution remote and proximal sensing technologies for crop phenotyping and stress monitoring.
- Integration of Internet of Things (IoT) and real-time data streams for autonomous field management.
- Robotics, automation, and smart machinery applied across the full crop cycle.

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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.

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