Special Issue

Plant Sensors in Precision Agriculture

Message from the Guest Editors

Recent advances in plant sensing technologies have revolutionized the way we monitor, analyze, and manage crops in precision agriculture. Sensor-driven approaches, encompassing proximal and remote sensing systems, provide real-time insights into plant physiological traits, soil–plant interactions, and environmental dynamics. These tools enable the assessment of nutrient status, water use efficiency, and stress detection at multiple spatial and temporal scales, facilitating more sustainable and data-informed crop management decisions. This Special Issue, “Plant Sensors in Precision Agriculture,” aims to highlight innovative research and practical applications of plant-based, proximal, and remote sensors for sustainable crop production. We welcome contributions addressing sensor development, calibration, data fusion, and integration with machine learning and decision support systems. Studies exploring correlations between sensor-derived vegetation indices and physiological or agronomic parameters are also encouraged.

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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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