Special Issue

Crop Monitoring and Yield Prediction for Arid and Semi-Arid Farming Systems

Message from the Guest Editors

We are pleased to invite you to contribute to our Special Issue, *"Crop Monitoring and Yield Prediction for Arid and Semi-Arid Farming Systems"*. In arid and semi-arid regions, where water scarcity, climate variability, and fragile ecosystems pose persistent challenges, stable crop production requires precise management. Crop monitoring and yield prediction are vital for optimizing resources, mitigating risks, and enhancing resilience. From real-time crop health assessment to yield forecasting, advanced technologies and data-driven approaches are reshaping how we manage productivity in water-limited environments. This Special Issue highlights advances in remote sensing (satellite, UAV, ground-based), IoT sensors, AI, and machine learning for crop health, stress detection, and yield prediction. We also welcome studies combining agronomy, climate modeling, and soil–water dynamics to improve prediction accuracy and application. We invite original research and reviews that support sustainability and resilience in arid and semi-arid farming systems.

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