

Special Issue

Application of Machine Learning and Modelling in Food Crops

Message from the Guest Editors

With the increasing demand for sustainable food production and the challenges posed by climate change, agriculture is undergoing a digital transformation. The integration of machine learning (ML) into agricultural science is revolutionising the way in which we monitor, predict and manage crop productivity, offering data-driven solutions to improve agronomic efficiency, sustainability and resilience. This Special Issue aims to explore the latest advancements in the applications of ML and computational modelling (including process-based crop modelling) for agricultural crops in relation to remote sensing, Internet of Things (IoT), crop phenotyping, resource optimisation, climate impact assessment and adaptation strategies, pest and disease control, and AI-driven decision support systems, among others. Submissions adopting an innovative interdisciplinary approach across these areas are particularly encouraged, including novel studies that make use of data science to improve monitoring and predictions for crop growth and yield, improve crop management practices, and support crop breeding and policy formulation.

Guest Editors

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Deadline for manuscript submissions

31 December 2025



Agronomy

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Impact Factor 3.4
CiteScore 6.7



mdpi.com/si/237321

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Editor-in-Chief

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