



Water and Fertilizer Regulation Theory and Technology in Crops

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Message from the Guest Editors

Mismanaged practices of irrigation and fertilization result in substantial wastage of these precious resources and increased salinization. Moreover, these practices can trigger a number of issues, which can severely compromise the yield and quality of crops. In the context of carbon peak and carbon neutrality, the optimal use of water and fertilizer is essential to both enhance the output and quality of crops and to promote soil health and environmental sustainability.

This Special Issue focuses on the synergy between water and fertilizer management, precision irrigation, and the technological and theoretical aspects of crop water and nutrient regulation. It also delves into improving crop varieties, water conservation agriculture, the strategic optimization of crop planting structures, and the enhancement of ecological environments of farmland. Additionally, it explores the application of cutting-edge technologies such as unmanned aerial vehicles (UAVs), satellite remote sensing, artificial intelligence, the Internet of Things (IoT), and big data analytics to monitor and manage water and fertilizer practices.





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Message from the Editor-in-Chief

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