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Management and Efficient Utilization of Water and Fertilizer in Field Crops

Guest Editors:

Dr. Shicheng Yan

Prof. Dr. Junliang Fan

Dr. Zhou Zhang

Dr. Chao Zhang

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Message from the Guest Editors

Due to the global rise in population and climate change, food security and production have been major concerns for the world. The integrated management of water and fertilizer can affect soil water and nutrient distributions, thereby altering the water- and nutrient-use patterns, which can further affect the grain and forage yield and economic benefits of field crops. Due to the different cropping systems in the world, the distribution and movement of water and nutrients are complex. However, there have been few studies on water and fertilizer movement mechanisms in different cropping systems and on water–fertilizer coupling effects on plant–soil relationships, crop growth monitoring and yield prediction. Therefore, a well-coordinated water and fertilizer supply promotes the growth, leaf photosynthetic capacity, grain and forage yield, quality, water and fertilizer use efficiency as well as production benefits.

This Special Issue invites original research, technology reports, modelling approaches and methods, opinion articles, perspectives, invited reviews, and minireviews on water and fertilizer management in plant–soil systems.



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Special Issue



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Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science,
University of Manitoba, Winnipeg,
MB R3T 2N2, Canada

Message from the Editor-in-Chief

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Plants Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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