



## Water Needs of Crops and Irrigation Management under Climate Change

Guest Editors:

**Prof. Dr. Zhandong Liu**

Institute of Farmland Irrigation,  
Chinese Academy of Agriculture  
Sciences, Xinxiang 453003, China

**Dr. Anzhen Qin**

Institute of Farmland Irrigation,  
Chinese Academy of Agriculture  
Sciences, Xinxiang 453003, China

**Prof. Dr. Wen Yin**

State Key Laboratory of Aridland  
Crop Science, College of  
Agronomy, Gansu Agricultural  
University, Lanzhou 730070,  
China

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### Message from the Guest Editors

Given the expansion of irrigated farmland, water shortage is escalating in the agricultural sector. Great efforts should be made to balance the water needs and supply while achieving high crop productivity. However, the climate system is changing, and the global average surface temperature has increased by 0.65–1.06 °C. Climate change brings about temperature rises and erratic rainfall, increasing crop vulnerability in yield formation. Crop water needs are expected to markedly increase with global warming, further accelerating the world's water crisis. In this context, global food security should be guaranteed by optimizing crop water management and improving crop adaptation to climate change. Understanding crop water needs under climate change is of irreplaceable importance for the sustainable development of agriculture. This Special Issue aims at providing an overview of the latest developments in the major fields of crop water needs, water physiology, drought mitigation, water-saving techniques, smart irrigation, and strategies for optimizing crop water management in the context of climate change.





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Sydney Institute of Agriculture,  
School of Life and Environmental  
Sciences, The University of  
Sydney, Sydney, NSW 2006,  
Australia

## Message from the Editor-in-Chief

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Agriculture Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
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