

Special Issue

Water Saving Irrigation Mechanism and Regulation Technology for Improving Crop Water Use Efficiency

Message from the Guest Editors

[*] Background & history of this topic: Drought-affected, semi-arid areas account for 35% of the global land area. The biggest constraint that limits agricultural development in arid regions is water shortage. Thus, determining how to improve the efficiency of agricultural water in arid regions to ensure agriculture and green and sustainable development is an important scientific problem of global agriculture. Numerous studies have been carried out on the irrigation water-saving mechanism. However, despite the wide application of intelligent drip irrigation and other new technologies in arid regions, research on the technology needed to change farmland water, energy, and material circulation and to achieve a water-saving effect is still needed. [*] Aim and scope of the special issue: Therefore, the purpose of this Special Issue is (1) to focus, on a global scale, on irrigation and the latest research results on the effectiveness of the new technology; (2) to publish research on new technology for drip irrigation and other intelligent water-saving techniques; and (3) identify new numerical simulation methods for irrigation.

Guest Editors

Prof. Dr. Sien Li

Center for Agricultural Water Research in China, China Agricultural University, Beijing 100083, China

Prof. Dr. Junliang Fan

College of Water Resources and Architectural Engineering, Northwest A&F University, Yangling 712100, China

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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