Special Issue

Synergistic Management of Water, Fertilizer, and Salt in Arid Regions

Message from the Guest Editor

This research focuses on the synergistic management of water, fertilizer, and salt to advance sustainable agriculture in arid regions. It centers on the efficient utilization of water resources as the foundational element for all agricultural activities. Building on this, the study investigates efficient management of water and fertilizer, aiming to synchronize irrigation and nutrient application to maximize crop uptake and minimize losses through practices like fertigation. Concurrently, it addresses the critical challenge of efficient water and salt regulation in the root zone, developing strategies to leach excess salts while preventing their accumulation, which is vital for maintaining soil health. These principles are integrated and implemented through various water-saving irrigation management practices, such as drip and subsurface irrigation, which provide precise water control. The ultimate goal of this integrated approach is to optimize the water–fertilizer–salt balance, thereby enhancing crop productivity, ensuring food security, and promoting ecological sustainability in water-scarce environments.

Guest Editor

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Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

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