Special Issue

Agricultural Water-Land-Plant System Engineering

Message from the Guest Editors

The world is facing the enormous challenge of increasing our food production capacity by 55% by 2050 to meet the needs of an estimated 9.7 billion people. However, under the influence of climate change, water shortage and soil degradation, the vulnerability of agricultural production has increased. In order to promote food production, the agricultural production system of water use, land conditions and crop growth should be taken into account together. Rational regulation and control methods for soil, water, fertilizer, salt, heat and crop systems should be studied and then adopted to achieve efficient food production and the sustainable use of agricultural resources. The Special Issue focuses on the latest research results in systems engineering for agricultural water–land condition–crop growth, including the regulation mechanism of crop water, fertilizer, salt, heat and microclimate, water-saving irrigation, agronomic technologies and modes, comprehensive observation and simulation technology of farmland ecosystems, and agricultural production management modes to cope with climate change. We welcome original research papers, review articles and short notes.

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Deadline for manuscript submissions

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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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