Special Issue

Efficient Management of Water, Energy, Fertilizer, and Rhizosphere Microbiome for Facility Crops

Message from the Guest Editors

Greenhouse vegetable cultivation is one of the most intensive agricultural production systems, playing an important part for stable, year-round vegetable supply. Compared with open field cultivation, a larger amount of fertilizer, water, and energy are invested to increase the yield of products. However, oversupply of water and fertilizer usually eteriorate crop rootzone medium and negatively affect vegetable quality and yield. Meanwhile, unreasonable use of energy increases the cost of production. All these management practices can alter the rhizosphere microbiome, which is critical for plant fitness. Efficient use of water, fertilizer, and energy resources is vital in terms of increasing production, profit, and competitiveness of facility agriculture. This Special Issue welcomes original research and review articles that provide updated state-of-the-art of theory, methods, technologies in greenhouse management that can contribute to higher water nutrient and energy use efficiency, and environmentally sustainable production of facility crops.

Guest Editors

Dr. Lichun Wang

Information Technology Research Center, Beijing Academy of Agriculture and Forestry Sciences, Beijing 100097, China

Dr. Xingang Zhou

Department of Horticulture, Northeast Agricultural University, Harbin 150030, China

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Agronomy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agronomy@mdpi.com

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Prof. Dr. Leslie A. Weston
Gulbali Centre for Agriculture, Water and Environment Research, Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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