

Precision Irrigation and Sustainable Intensification in a Digital and Resilient Agriculture Context

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Message from the Guest Editors

Irrigation, a key practice for effective agriculture in arid and semi-arid climates, has been associated with crop intensification since ancient times. In conjunction with global climate change, the increase in worldwide population, in industrialization, in standard of living and in irrigated area (with concomitant increases in the use of fertilizers and plant protection products), has increased the use of water resources in agriculture, leading to an increase in their scarcity and/or pollution in many areas.

Precision irrigation, which involves rational irrigation strategies and sensor-based systems (automation and remote sensing) supported by digital technologies, has proven to be an effective tool to materialize sustainable intensive agriculture in areas with water deficit.

In this context, this Special Issue aims to gather new and innovative knowledge, technology and agricultural practices related to precision irrigation, to achieve a resilient, ecologically adjusted and sustainable intensive agriculture suitable to overcome the challenges from global climate change and global population.





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