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Biotechnology -- Chapter 18: Opportunities of Big Data in agricultural water management -- Chapter 19: Remote Sensing for Agricultural Water Management -- Chapter 20: UAVs scope in agricultural water management -- Chapter 21: Harmonizing Nature's Flow: Ecohydrology for Sustainable Agricultural Water Management -- Chapter 22: Better Soil moisture management may improve Soil Properties in the era of climate change -- Chapter 23: Innovative Solutions for Agricultural Water Management in future.

Sommario/riassunto

Due to climate change, population growth and urbanization, competition for water resources is expected to increase, with a particular impact on agriculture. Sustainable water management in agriculture is essential for ensuring food security and environmental protection. Sustainable agricultural water management includes integrated water resources management, the use of water-efficient technologies, and the adoption of water conservation practices. This contributed volume offers background and cases dealing with a variety of ways to sustainably manage water for agriculture in the context of climate change. It investigates the positives and downsides of a variety of approaches, including but not limited to precision agriculture, water harvesting, and wastewater for agricultural purposes. A number of biological and physical sciences (e.g. biotechnology, remote sensing, GIS and ecohydrology) can be involved for better adoption of innovations in agricultural water management. The book also describes possibilities of cultivars that use less water and detailed techniques for measuring and assessing water quality and quantity.
