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Descrizione fisica	1 online resource (X, 369 pages) : 66 illustrations, (45 illustrations in color)
Collana	Springer Water, , 2364-6934
Disciplina	333.9130962
Soggetti	Water pollution Agriculture Environmental management Environmental sciences Remote sensing Sustainable development Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution Environmental Management Environmental Science and Engineering Remote Sensing/Photogrammetry Sustainable Development
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to "technological and modern irrigation environment in Egypt: best management practices and evaluation" -- Irrigation practice: problems and evaluation -- Irrigation: water resources, types and common problems in Egypt -- Need for evaluation of irrigation schemes and irrigation systems -- Evolution of irrigation system, tools and technologies -- Smart irrigation technology -- Smart sensing system for precision agriculture -- Development of recent information and data on irrigation technology and management -- Medicinal plants

in hydroponic system under water-deficit conditions--a way to save water -- Irrigation management -- Accurate estimation of crop coefficients for better irrigation water management in Egypt -- Vermicomposting impacts on agriculture in Egypt -- Irrigation water use efficiency and economic water productivity of different plants under Egyptian conditions -- Irrigation system design -- Improving performance of surface irrigation system by designing pipes for water conveyance and on-farm distribution -- Micro-sprinkler irrigation of orchard -- Drip irrigation technology: principles, design, and evaluation -- Water reuse and treatment -- Irrigation with magnetically treated water enhances growth and defense mechanisms of broad bean (*Vicia Faba L.*) and rehabilitates the toxicity of nickel and lead -- Irrigation with magnetically treated water induces antioxidative responses of *Vicia Faba L.* to Ni and Pb stress at harvest stage -- Conclusions -- Update, conclusions, and recommendations to "technological and modern irrigation environment in Egypt: best management practices and evaluation."

Sommario/riassunto

This book gathers contributions on modern irrigation environments in Egypt from an environmental and agricultural perspective. Written by leading experts in the field, it discusses a wide variety of modern irrigation problems. In the context of water resources management in Egypt, one fundamental problem is the gap between growing water demand and limited supply. As such, improving irrigation systems and providing farmers with better control over water are crucial to increasing productivity. The book presents state-of-the-art technologies and techniques that can be effectively used to address a range of problems in modern irrigation, as well as the latest research advances. Focusing on water sensing and information technologies, automated irrigation technologies, and improved irrigation efficiency. It brings together a team of experts who share their personal experiences, describe the various applications, present recent advances, and discuss possibilities for interdisciplinary collaboration and implementing the techniques covered.
