

Water management for sustainable agriculture

Edited by Professor Theib Oweis, formerly ICARDA, Lebanon



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Water management for sustainable agriculture

Edited by: Theib Oweis, International Platform for Dryland Research and Education - Tottori University, Japan

Endorsement:

"This book provides excellent source material, covering a range of important topics for sound and sustainable water management practices for agriculture. This is an urgent need as food production is the major consumer of water resources. This book will hold the keys to help unlock the potential for improved water management. The editor and author are to be applauded in taking this issue side by side with issues of sustainability."

David Molden, Director General - International Centre for Integrated Mountain Development, Nepal (formerly Deputy Director General for Research at the International Water Management Institute)

Description:

There is increasing competition for water resources in the face of declining aquifer reserves and increasing risk in many areas of drought related to climate change. At the same time poor water management is damaging agriculture with problems such as salinization, waterlogging, erosion and run-off. This volume summarises the wealth of research on understanding and better management of water resources for agriculture.

Part 1 reviews fundamental issues such as plant water use and soil water retention. Part 2 discusses ways of mapping and monitoring groundwater and surface water resources whilst Part 3 covers other sources such as rain and floodwater, waste and brackish water. Part 4 surveys developments in irrigation techniques such as drip irrigation and fertigation. The final sections in the book discuss ways of using water resources more efficiently such as site-specific and deficit irrigation techniques.

With its distinguished editor and international team of expert authors, this will be a standard reference for agronomists, scientists involved in water and irrigation science as well as government and non-governmental organisations responsible for agriculture and water resource management.

Key features:

- Comprehensive review of the range of water resources, from groundwater and surface water to rainwater, floodwater and waste water
- Discusses advances in irrigation techniques, from surface irrigation and sprinkler systems to micro/drip irrigation and fertigation
- Assesses methods for optimising agricultural water use in rainfed and other systems

Audience:

Researchers in irrigation and water management; agronomists; crop growers; government and non-governmental organisations responsible for agriculture and/or water resource management.

Editor details:

Dr Oweis is Distinguished Guest Professor - International Platform for Dryland Research and Education at Tottori University, Japan. Professor Oweis was formerly Director of the Integrated Water and Land Management Program (IWLMP) at the International Centre for Agricultural Research in the Dry Areas (ICARDA). Professor Oweis is widely regarded as one of the world's leading authorities on water management in agriculture.

Table of contents:

Part 1 Fundamentals

1. Understanding and measuring plant water use: *Gretchen R. Miller, Texas A&M University, USA*
2. Dynamics of water storage and retention in soil: *Kálmán Rajkai, Hungarian Academy of Sciences, Hungary; Ferenc Ács, Eötvös Loránd University, Hungary; Brigitta Tóth, Hungarian Academy of Sciences, and University of Pannonia, Hungary; András Makó, Hungarian Academy of Sciences, Hungary*
3. Climate change and water resources for agriculture: *Luis Garrote, Universidad Politécnica de Madrid, Spain*

Part 2 Sustainable use of groundwater and surface water for irrigation
4. An integrated approach for the estimation of crop water requirements based on soil, plant and atmospheric measurements: *N. Jovanovic, S. Dzikiti and M. Gush, Council for Scientific and Industrial Research (CSIR), South Africa;*

5. The economics of groundwater development and governance: *T. Shah, International Water Management Institute, India*
6. Managing surface water for irrigation: *A. Qureshi, International Center for Biosaline Agriculture, United Arab Emirates*

Part 3 Other sources of water for irrigation

7. Rainwater and floodwater harvesting for crop irrigation: *Dieter Prinz, Karlsruhe Institute of Technology (KIT), Germany*
8. The use of treated wastewater for crop irrigation: *Alfieri Pollice and Ramy Saliba, IRSA-CNR, Bari, Italy; and Antonio Lonigro, Università degli Studi di Bari, Italy*
9. Use of brackish and marginal water for irrigation in water scarce areas: *Z. Gao, China Institute of Water Resources and Hydropower Research, China*

Part 4 Irrigation techniques

10. Developments in surface irrigation techniques: *Taffa Tulu, Addis Ababa University, Ethiopia*
11. Trickle/drip irrigation systems: *Megh G. Goyal, formerly University of Puerto Rico, Puerto Rico*
12. An overview of subsurface irrigation techniques: *Andrea Dührkoop and Oliver Hensel, University of Kassel, Germany*
13. Fertigation techniques for efficient water and nutrient use in agriculture: *Munir J. Mohammad Rusan, Jordan University of Science and Technology, Jordan and International Plant Nutrition Institute (IPNI), USA*

Part 5 Managing water use on the farm

14. Modelling water use on farms: *L. S. Pereira and P. Paredes, University of Lisbon, Portugal*
15. Improving water productivity in rainfed agriculture: challenges and opportunities for small-scale farmers in dry lands: *John Gowing, University of Newcastle, UK*
16. Improving water use in tropical rain-fed systems: the situation in India: *Suhas P. Wani, Kaushal K. Garg, Girish Chander and K.H. Anantha, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) Development Centre, India*
17. Deficit irrigation and site-specific irrigation scheduling techniques to minimize water use: *Susan A. O'Shaughnessy, USDA-ARS, USA; and Manuel A. Andrade, Oak Ridge Institute for Science and Education, USA*
18. Drainage systems to support sustainable water use: *Henk Ritzema, Wageningen University, The Netherlands*

Part 6 Managing water resources

19. Increasing water productivity in agriculture: an overview: *Wayne S. Meyer, University of Adelaide, Australia*
20. Regional strategies in sustainable water management for irrigation: the ecoefficiency approach: *Mladen Todorović, Centre International de Hautes Etudes Méditerranéennes (CIHEAM), Mediterranean Agronomic Institute of Bari, Italy*
21. The challenge of sustainable water resources management under water scarcity: *Pasquale Steduto, Food and Agriculture Organization of the United Nations (FAO), Italy and Chris Perry, Former Research Director International Water Management Institute (IWMI), UK*
22. Assessing the cost of supplying water for agriculture: the food supply cost curve: *Roberto Roson, Cà. Foscari University of Venice, Italy*

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