

## Volume 7

### CLOSED CIRCUIT TRICKLE IRRIGATION DESIGN

*Theory and Applications*

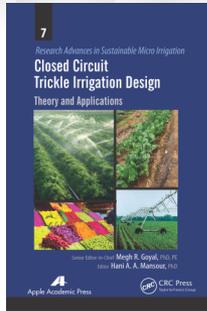
Senior Editor-in-Chief:

Megh R. Goyal, PhD

Editor: Hani A. A. Mansour, PhD

Presents a diverse collection of research on closed circuit irrigational technology and design and provides studies of its use on such crops as wheat, maize, yellow corn, soybeans, rice, and snap peas. The book explores: • soil moisture and salinity distributions under modified sprinkler irrigation • performance of sprinkler irrigation • design considerations for closed circuit drip irrigation systems • performance of bubbler irrigation • energy and water savings of drip irrigation systems • automation of mini-sprinkler and drip irrigation systems • water and fertilizer use efficiencies for drip irrigated maize • evaluation of emitter clogging for drip irrigated systems • and more.

440 pages with index. ISBN: 978-1-77188-116-6.  
Cat #: N11261. \$190.00 US hardback. August 2015.



## Volume 8

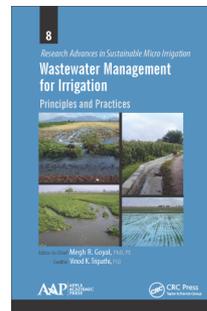
### WASTEWATER MANAGEMENT FOR IRRIGATION

*Principles and Practices*

Editor-in-Chief: Megh R. Goyal, PhD, PE;  
Coeditor: Vinod K. Tripathi, PhD

This important book focuses on the use of wastewater as a valuable resource for agricultural micro irrigation purposes. It covers: • effective wastewater management practices in a variety of climates, including semi-arid regions and others • how to perform effective evaluations to gauge the quality of the water on plants, including potatoes, maize, eggplant • the cost benefit of using wastewater. It addresses the sources of wastewater for irrigation and the problems along with challenges, including water quality, clogging, soil quality, and more.

474 pages with index. ISBN: 978-1-77188-120-3.  
\$180.00 US hardback. October 2015.



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## Volume 9

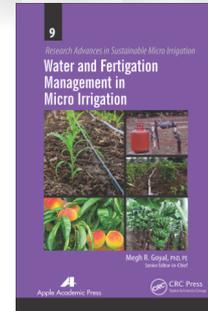
### WATER AND FERTIGATION MANAGEMENT IN MICRO IRRIGATION

Editor-in-Chief:

Megh R. Goyal, PhD, PE

Provides an invaluable addition to the literature and knowledge on the ever-growing need for sustainable irrigation for agricultural crops in many water-scarce parts of the world. The book specifically covers advances in fertigation for water management in general as well as for specific crops, such as peaches, maize, and citrus crops. Topics include: The design of various surface and subsurface water emitters • Using information from weather stations for irrigation purposes • Ultra low drip irrigation technology • The management of weeds in crops using micro irrigation • New technology and advances in fertigation.

356 pages with index. ISBN: 978-1-77188-106-7.  
Cat #: N11242. \$180.00 US hardback. August 2015.



## Volume 10

### INNOVATIONS IN MICRO IRRIGATION TECHNOLOGY

Senior Editor-in-Chief:

Megh R. Goyal, PhD, PE;

Coeditors: Vishal K. Chavan, MTech, and Vinod K. Tripathi, PhD

Focuses on new and recent innovations in technology, methods, and applications for micro irrigation. The book covers a wide variety of topics, including successes in micro irrigation in India, how new methods have helped the local economies in several areas, ways to enhance crop yield through new building programs, and new technology and systems. It looks at different aspects of these new innovations in micro irrigation, including economic impact, evaluation methods, bubbler systems, success with particular crops, scheduling, and more.

410 pages with index. ISBN: 978-1-77188-150-0.  
Cat #: N11340. \$180.00 US hardback. March 2016.



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**Innovations in Micro Irrigation Technology**

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## Volume 1 SUSTAINABLE MICRO IRRIGATION

*Principles and Practices*

Senior Editor-in-Chief:  
**Megh R. Goyal**, PhD, PE

Written by experienced scientists from various parts of the world, the chapters in this book offer basic principles, knowledge, and techniques of micro irrigation management, which are essential in designing, developing, and evaluating an agricultural irrigation management system. The methods and techniques have worldwide applicability to irrigation management in agriculture. The book includes coverage of • an historical review of micro irrigation • the current global status of the field and its potential • basic principles and applications • new research on chemigation and fertigation • technologies for specific crops, such as sugar cane • irrigation software for micro irrigation design • affordable and low-cost micro irrigation solutions for small farms and farms in developing countries • micro irrigation design using Hydrocalc software.

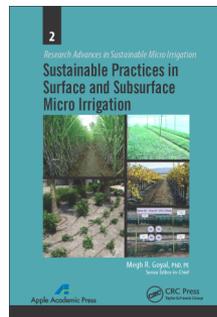
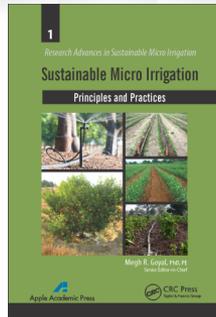
506 pages with index. ISBN: 978-1-77188-016-9.  
Cat #: N11096. \$179.00 US hardback. July 2014.

## Volume 2 SUSTAINABLE PRACTICES IN SURFACE AND SUBSURFACE MICRO IRRIGATION

Senior Editor-in-Chief:  
**Megh R. Goyal**, PhD, PE

Focusing on both subsurface and surface micro irrigation, chapters in the book cover: • irrigation water requirements for tangerine, vegetables, bananas, plantains, beans, and papaya • irrigating different types of soils, including sandy soils, wet soils, and mollisols • new applications for micro irrigation using existing technology, such as meteorological instruments and MicroCAD • meteorological instruments for water management • and much more.

392 pages with index. ISBN: 978-1-77188-017-6.  
Cat #: N11097. \$179.95 US hardback. August 2014.



## Volume 3 SUSTAINABLE MICRO IRRIGATION MANAGEMENT FOR TREES AND VINES

Senior Editor-in-Chief:  
**Megh R. Goyal**, PhD, PE

Focuses on sustainable micro irrigation management for trees and vines. The book addresses irrigation scheduling, water management for trees and vines, maintenance of micro irrigation systems to avoid clogging, wastewater use in micro irrigation, evaluation of micro irrigation systems, and micro irrigation management in citrus and blueberries. Specialists throughout the world share their expertise on: • automation of micro irrigation systems • service and maintenance of micro irrigation systems • evaluation of micro irrigation systems • scheduling of irrigation • using municipal wastewater for micro irrigation • micro-jet irrigation and other systems • the effect of potassium, acid lime, and other elements • much more

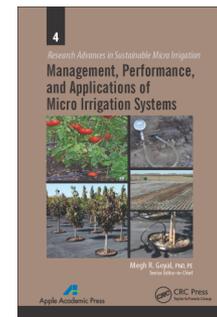
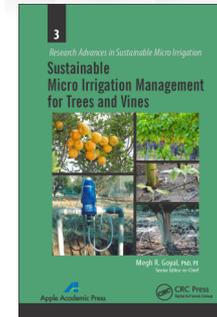
354 pages with index. ISBN: 978-1-77188-025-1.  
Cat #: N11106. \$179.95 US hardback. August 2014.

## Volume 4 MANAGEMENT, PERFORMANCE, AND APPLICATIONS OF MICRO IRRIGATION SYSTEMS

Senior Editor-in-Chief:  
**Megh R. Goyal**, PhD, PE

This important volume presents the best management practices in sustainable micro irrigation, with the goal of increasing crop yield and quality and conserving water. The practices described are practical and attainable and are based on research and studies from many areas of the world, including India, South Africa, and other areas. The practices and applications presented include: • partial root-zone surface drip irrigation • effective maintenance techniques • web-based irrigation scheduling • water use efficiency methods • the use of flushing and filtration systems. This valuable book is a must for those struggling to find ways to address the need to maintain efficient crop production in the midst of water shortages.

374 pages with index. ISBN: 978-1-77188-069-5.  
Cat #: N11188. \$179.00 US hardback. August 2014.



## Volume 5 APPLICATIONS OF FURROW AND MICRO IRRIGATION IN ARID AND SEMI-ARID REGIONS

Senior Editor-in-Chief:  
**Megh R. Goyal**, PhD, PE

Addresses the ever-challenging need for irrigation systems in arid and semi-arid regions of the world, areas that are suffering from severe water shortages. These areas, such as Egypt, Tunisia, most of Africa and parts of South America, Central America and Australia, find it a struggle to grow crops sustainably with the water available. This important book presents a variety of research and studies on such topics as: meteorological instruments for water management • buried micro irrigation laterals for soil water retention • water vapor flux models • performance of various crops grown under different irrigation methods • scheduling of irrigation phyto-monitoring techniques.

325 pages with index. ISBN: 978-1-77188-089-3.  
Cat #: N11222. \$169.95 US hardback. July 2015.

## Volume 6 BEST MANAGEMENT PRACTICES FOR DRIP IRRIGATED CROPS

Editors: **Kamal Gurmit Singh**, PhD,  
**Megh R. Goyal**, PhD, PE, and  
**Ramesh P. Rudra**, PhD, PE

Focuses on best management practices for drip irrigated crops. It covers irrigation methods, scheduling of micro irrigation, and mulching and crop performance along with many other topics. The methods described here have been tweaked and proved to be effective and productive. Many practices, procedures, and methods are described here, including • low tunnel technology • low pressure fertigation injector • climatological approaches • design and cost estimation • efficient water use • economics of different micro irrigation methods • crop spacing • Micro irrigation techniques with diverse crops are discussed, including sweet pepper, chili, tomatoes, cauliflower, wheat, sweet peas, sugarcane, and potatoes.

440 pages with index. ISBN: 978-1-77188-095-4.  
Cat #: N11229. \$179.00 US hardback. July 2015.

