New Book Announcement

Forthcoming
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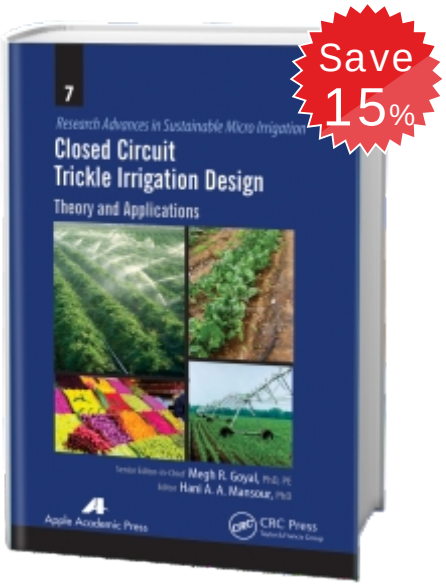
Closed Circuit Trickle Irrigation Design

Theory and Applications

Senior Editor-in-Chief: Megh R. Goyal, PhD
Retired Professor in Agricultural and Biomedical Engineering, University of Puerto Rico, Mayaguez Campus
Senior Acquisitions Editor, Biomedical Engineering and Agricultural Science, Apple Academic Press, Inc.
email: goyalmegh@gmail.com

Editor: Hani A. A. Mansour, PhD
Distinguished Research Engineer of Soil and Water Engineering, Water Relations Field Irrigation Department (Agricultural and Biological Division), National Research Center, Egypt;
Visiting Post-Doc Research Fellow, Agricultural & Biological Engineer



Closed circuit trickle irrigation is a form of micro irrigation that increases energy and water efficiency by using closed circuit drip irrigation systems designs. Modifications are made to traditional micro irrigation methods to reduce some of the problems and constraints, such as low compressor water at the end of irrigation lines. This approach has proved successful for the irrigation of fruit trees and some vegetable and field crops. Closed circuits of drip irrigation systems require about half of the water needed by sprinkler or surface irrigation. Lower operating pressures and flow rates result in reduced energy costs, and a higher degree of water control is attainable as well. Plants can be supplied with more precise amounts of water, and disease and insect damage is reduced because plant foliage stays dry. Fertilizers can also be applied through this type of system, which can result in a reduction of fertilizer and fertilizer costs.

This new volume in the Research Advances in Sustainable Micro Irrigation book series 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

This book will be valuable for those interested in irrigation planning and management, namely, researchers, scientists, educators, upper-level students, agricultural extension services, and others.

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Books in the Research Advances in Sustainable Micro Irrigation series:

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- Volume 1: Sustainable Micro Irrigation: Principles and Practices
- Volume 2: Sustainable Practices in Surface and Subsurface Micro Irrigation
- Volume 3: Sustainable Micro Irrigation Management for Trees and Vines
- Volume 4: Management, Performance, and Applications of Micro Irrigation Systems
- Volume 5: Applications of Furrow and Micro Irrigation in Arid and Semi-Arid Regions
- Volume 6: Best Management Practices for Drip Irrigated Crop
- Volume 7: Closed Circuit Micro irrigation Fesign: Theory and Applications
- Volume 8: Wastewater Management for Irrigation: Principles and Practices
- Volume 9: Water and Fertigation Management in Micro Irrigation

ABOUT THE EDITORS

Dr. Megh R. Goyal received a BSc degree in engineering in 1971, MSc degree in 1977, PhD degree in 1979, and Master of Divinity degree in 2001. He spent a one-year sabbatical leave in 2002–03 at the Biomedical Engineering Department of Florida International University, Miami, USA. Since 1971, he has worked as Lecturer/Research Assistant at Haryana Agricultural University and the Ohio State University, and Professor–cum Research Agricultural Engineer at Agricultural Experiment Station of the University of Puerto Rico, Mayaguez campus. At present, he is a retired professor in agricultural and biomedical engineering in the College of Engineering at University of Puerto Rico. He is also Senior Acquisitions Editor for Apple Academic Press, Inc., in the areas of agricultural science and biomedical engineering, as well as Senior Editor-in-Chief of the book series Advances in Bioengineering Research and Applications, published by AAP. He has authored more than 200 articles in technical journals and textbooks, including *Elements of Agroclimatology* (Spanish) by UNISARC; Colombia, two bibliographies on drip irrigation; the books *Biofluid Dynamics of Human Body, Management of Drip/Trickle or Micro Irrigation, Evapotranspiration: Principles and Applications for Water Management*, and *Biomechanics of Artificial Organs and Prostheses;* as well as the three volume series on Research Advances on Sustainable Micro Irrigation. Readers may contact him at goyalmegh@gmail.com

Hani A. A. Mansour, PhD, is a Distinguished Research Engineer in Soil and Water Engineering at the Water Relations Field Irrigation Department (Agricultural and Biological Division) at the National Research Center, Egypt. He is also now a Visiting Post-Doc Research Fellow in the Agricultural & Biological Engineering Department at Purdue University, West Lafayette, Indiana (USA) until January 2015. At Purdue University, he is working on "Using models and simulation programs in irrigation management under localized and developed irrigation systems." He has been a postdoctoral student at Szent István Egyetem, Godollo-Hungary from October 2013 to April 2014. He has worked on development, design, and management of drip irrigation systems; deficit irrigation systems; water and fertigation management; and the treated low quality water in irrigation systems. He is an expert on closed circuits of drip irrigation system.

He is a critical reader, thinker, planner and fluent writer and has published more than 40 publications on micro irrigation technology in arid regions.

Approx. 375 pages with index.

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