



NEWSLETTER

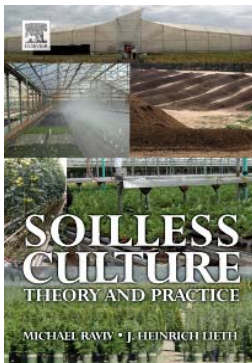
Commissions
Plant Substrates and Soilless Culture
Protected Cultivation



Issue 1

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SOILLESS CULTURE: THEORY AND PRACTICE



This book just published by Elsevier deals with important subjects relevant to many ISHS members. The book was edited by Dr. Michael Raviv, Newe Ya'ar Research Center, ARO, Department of Environmental Horticulture, Israel, who is also the Chairman of the Working Group "Composting and the Use of Composts in Substrates" within the Commission "Plant Substrates and Soilless Culture" and by Prof. J. Heinrich Lieth, Department of Plant Sciences, University of California - Davis, U.S.A.

Plant production in hydroponics and soilless culture is rapidly expanding throughout the world, raising great inter-

est in the scientific community as well as practical horticultural operations. This reference book covers the state-of-the-art in this area, including both theoretical and practical aspects of hydroponics. The book provides the reader with an understanding of the chemical, physical and biological properties of various soilless media and how these properties affect plant performance in relation to basic horticultural operations such as irrigation and fertilization. The audience for this book includes scientists, graduate students, greenhouse and nursery managers and extension specialists. It can also be used as a textbook for a university course on soilless culture.

The original features of this book include:

Ø Description of the current knowledge in relation to technical equipment and methods in soilless production systems, both for traditional run-to-waste systems and re-circulated systems.

Ø Chapters devoted specifically to management of re-

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circulated systems and issues related to plant protection in soilless media with emphasis on closed systems.

Ø A separate chapter specifically highlighting analysis of growing media.

The chapters are:

1. Significance of soilless culture in agriculture. M. Raviv and J.H. Lieth

2. The root zone system. U. Kafkafi

3. Physical characteristics of soilless media. R. Wallach

4. Irrigation control of substrate-grown plants. J.H. Lieth and L. Oki

5. Technical equipment in soilless production systems. E. van Os, T. Gieling and J.H. Lieth

6. Chemical characteristics of soilless media. A. Silber

7. Analytical methods used in soilless cultivation. C. Blok, C. de Kreij, R. Baas, and G. Wever

8. Nutrition of substrate-grown plants. A. Silber and A. Bar-Tal

9. Crops response to solution recycling in closed loop irrigation systems. B. Bar Yosef

10. Closed systems: microbial and phytopathological aspects. J. Postma, E.A. van Os and P.J.M. Bonants

11. Organic soilless media components. M. J. Maher, M. Prasad and M. Raviv

12. Inorganic components of soilless substrate. A.P. Papadopoulos, A. Bar-Tal, A. Silber, U. K. Saha and M. Raviv

13. Growing plants in soilless culture: Operational conclusions. M. Raviv, J.H. Lieth, A. Bar-Tal and A. Silber.

More information, including ordering information can be found in:

http://www.elsevier.com/wps/find/bookaudience.cws_home/713460/description#audience/713460/description#audience

International Symposium on Soilless Culture and Hydroponics
August 25 - 28 2008
La Lima Peru

Dear Colleagues,

Over the last fifteen years, the worldwide area destined



to hydroponics production has been increased considerably. At the moment, more than 35.000 hectares is used for this cultivation. Nowadays soilless culture and hydroponics are the most

intensive methods of vegetable production. Generally demand high technology and the investment of considerable amounts of money, and has being applied successfully for commercial purposes in developed countries. The future increase of hydroponics usage in Latin America and other related countries will depend on the development and adaptation of less sophisticated production systems - opposite to the sophisticated technology generated in developed countries – the use of natural and local substrates and the growth of endemic or native crops with economic potential due to their high nutritious and medicinal value; among other factors.

The considerable decrease of agricultural areas makes soilless culture and hydroponics an interesting alternative to produce in regions where it is not possible to crop with traditional agriculture. In addition to the commercial purposes for which hydroponics is being used, it can also be applied with social purposes, using simple technologies in many cities; to promote vegetable self-consumption and generate high productivity at familiar, communal or micro-enterprise level, contributing to improve the nutritional content of the food and the economics of the people in

marginal areas. This social experience of hydroponics is little known in developed countries. For this reason, this event will serve not only to give an idea of its economic potential, but also of the social and educational benefits that hydroponics can offer for many countries.

This will be the first event that will take place in the Region with the sponsoring of the ISHS through their Plant Substrate and Soilless Culture and Protected Cultivation Commissions. This event will allow us to know the potential and the advantages of the results of scientific research and will provide the possibility to exchange experiences between research centers, institutions, researchers, producers, students and companies related to the industry of soilless culture between countries of the North and South hemisphere. On behalf of the Organizing Committee, it is a great pleasure for us to invite you to participate in the International Symposium on Soilless Culture and Hydroponic to be held in Lima, Peru. Welcome to Peru!

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http://www.lamolina.edu.pe/hidroponia/ISHS_2008/index.html

International Symposium
“Strategies towards Sustainability of Protected Cultivation in Mild Winter Climate”

7-10 April 2008 Antalya-TURKEY

Dear Colleagues,

Protected cultivation has rapidly expanded in many regions all over the world.



Early on the major objective was crop improvement by better growth and pest and disease management. But climate control was and still is up today a difficult issue. Nowadays, environmental concerns play an important role as much as the trade's and the consumers' demands for best quality and safe produce. Also sustainable and controllable production processes are main issues that will rule future developments of protected cultivation.

Turkey, with a total greenhouse space of about 30 000 ha is one of the most important regions of protected cultivation in the Mediterranean area and worldwide. The total annual production of approx. 4 250 000 tons of mainly vegetables serve today domestic demands but have tremendous potential for future exports. Antalya, with a total greenhouse area of around 16 000 ha, is one of the most important regions

for production in Turkey as well as in the Mediterranean Basin. To address the need of continuous supply for products of high quality, expanding production areas in Turkey and elsewhere have to continuously search and adapt sustainable strategies to meet the market demands in the years to come. Horticultural sciences, extension services, companies to breed new cultivars, relevant government and private agencies but also trade and consumer

organisations have to work together to meet these goals for a growing industry.

Increasing international competition and production cost and more attention of the consumers to product quality and safety, but also sustainability of production processes are the main issues that will affect the future development of protected cultivation. In this scenario, the priority is focused on possible strategies to suit improved efficiency of production systems. For this reason, this symposium will provide an excellent opportunity for participants to present their strategies for protected cultivation and exchange information and ideas that will help to gather and disseminate all available expertise and knowledge in this area.

The scientific program will include three and a half days of invited lectures, oral presentations, poster sessions, a round table discussion on “Opportunities & constraints of good agricultural practices (GAP) for quality and safety of vegetables and fruits” and a field tour in which different greenhouse facilities will be visited.

On behalf of the Organizing Committee, it is a great pleasure to invite everyone engaged in research, teaching, extension, or public

services related to protected cultivation to attend the International Symposium on “Strategies towards Sustainability of Protected Cultivation in Mild Winter Climate”.

Looking forward to see you in Antalya

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<http://www.protectedcultivation2008.com>

From the Chairperson of the ISHS Working Group on Growing Media of the Commission Plant Substrates & Soilless Culture

by
Dr. Silvia Burés

The Working Group on Growing Media has a well proven record since its establishment more than 30 years ago for attracting outstanding researchers at organized symposia and workshops



to present their most advanced achievements in research of growing media.

During the past years the emphasis has changed indeed for growing media. Although the sci-

entific research within our Working Group is continuously adapting to new requirements, we are always facing new challenges not known 30 years ago, like food quality and its effects on human health, recycling of growing media, the importance of biological and microbiological properties, among others.

The most recent symposium of the Commission Plant Substrates and Soilless Culture, Working Group on Growing Media, jointly with the International Peat Society, was held in Nottingham, England from 2-8 September 2007. Over one hundred delegates attended from 32 countries: all continents were represented, one third from non-European nations. Most welcome was the fact that almost half of the delegates were from Industry.

We held a business meeting of our Working Group during the symposium. One of the proposals was the creation of an internet info-exchange platform for researchers working on similar subjects. This will be developed now.

Dr. Bill Fonteno of North Carolina State University offered to act as convener of the next meeting suggested for June 2009. It will be a joined symposium together with the Working Group on Composts in Growing Media chaired by Dr. Michael Raviv. There will be simultaneous working sessions on specific subjects, a method already successfully introduced during the workshop on “Microbiology of Growing Media” at Nottingham. Another interesting fact is the growing interest in graduate students and researcher for the industry. This will be addressed in the next meeting.