III International Symposium on Soilless Culture and Hydroponics:

Innovation and advanced technology for circular horticulture

ISHS International Symposium



Programme- Friday, March 19, 2021

	09:00-09:30	Welcome Ceremony and Opening Remarks Moderator: Stefania De Pascale, University of Naples, Italy Welcoming- Nikolaos Tzortzakis-convener, Silvana Nicola-co-convener, Panayiotis Zaphiris-CUT Rector, Stefania De Pascale- ISHS
	09:30-11:00	Session I: Indoor Farming and Microclimate Moderator: Silvana Nicola, University of Turin, Italy
Invited	lecture	
L1	09:30-10:00	The Colourful Life of Plants in Indoor Farming Leo F.M. Marcelis, Wageningen University, The Netherlands
Oral C	ommunications	
01	10:00-10:15	Effect of supplementary light on growth, yield and fruit quality of two tomato cultivars grown in High-Tech glasshouse Abdulaziz Alharbi, National Research and Development Center for Sustainable Agriculture, Kingdom of Saudi Arabia
02	10:15-10:30	Microclimate analysis to test the performance of an experimental two-level unit in the hydroponic greenhouse Helena Vitoshkin, Institute of Agricultural Engineering, Agricultural Research Organization, The Volcani Center, Israel
O3	10:30-10:45	Evolution of soilless culture in Chile
	10:45-11:00	Question time/Remarks
	11:00-11:15	Coffee break
	11:15-13:00	Session II: Soilless Culture and Substrates Moderator: Wim Voogt, Wageningen University and Research, The Netherlands
Oral Co	ommunications	
04	11:15-11:30	Peat reduced substrates for vegetable seedlings Nazim Gruda, University of Bonn, Germany
O5	11:30-11:45	The effects of irrigation frequency on water and heat regimes in different substrates and their mixtures: tomato as a case study <i>Asher Bar-Tal, Institute of Soils, Water and Environmental Science, ARO, The Volcani Center, Israel</i>
06	11:45-12:00	Opportunities and challenges of using non-thermal plasma treatments in soilless cultures: experience from greenhouse experiments Daniele Massa, CREA Research Centre for Vegetable and Ornamental Crops, Italy
07	12:00-12:15	Closed nutrient solution systems in Portuguese tomato greenhouses Margarida Oliveira, Polytechnic Institute of Santarém, Portugal
	12:15-12:20	Question time/Remarks
	12:20-13:00	Round table- Discussion forums (DF) DF1: Water and Nutrition Management Moderator: Wim Voogt-The Netherland
		DF2: New Technology Moderator: Silvana Nicola-Italy
	13:00-14:00	Lunch break

Programme- Friday, March 19, 2021

	14:00-15:30	Session III: Biocontrol and Bionutrition in Soilless Culture Moderator: Antonios Chrysargyris, Cyprus University of Technology, Cyprus	
Invited	lecture		D'AL
L2	14:00-14:30	Biological Control of Root Pathogens in Soilless Cultures Monica Höfte, Ghent University, Belgium	
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	14:30-15:30	Flash poster presentation (No 1-21)	
	15:30-15:45	Coffee break	
	15:45-17:10	Session III: Biocontrol and Bionutrition in Soilless Culture	
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		Francesco Di Gioia, The Pennsylvania State University, United States of America	
012	16:45-17:00	Organic sources of nutrient supply for tomatoes and asian herbaceous vegetables in soilless culture systems <i>Michael Böhme, Humboldt-Universität zu Berlin,Germany</i>	
	17:00-17:10	Question time/Remarks	

Programme- Saturday, March 20, 2021

	09:00-09:15	Opening Remarks Nikolaos Tzortzakis-Silvana Nicola	
	09:15-11:00	Session IV: Nutrient Solution Management & Salinity	
Invited	lecture	Moderator. Stelania De Fascale, Oniversity of Naples, haly	
L3	09:15-09:45	Optimizing Plant Nutrition in Open and Closed Hydroponic Systems Dimitrios Savvas, Agricultural University of Athens, Greece	
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013	09:45-10:00	Tailor-made hydroponic recipes for the production of high quality medicinal and aromatic plants Antonios Chrysargyris, Cyprus University of Technology, Cyprus	
014	10:00-10:15	Effect of different nitrogen fertilization levels on plant growth performance, yield and 6-gingerol content of ginger (<i>Zingiber officinale</i> Roscoe) cultivated in soilless culture system Yaseer Suhaimi Mohd, Malaysian Agricultural Research and Development Institute, Malaysia	
O15	10:15-10:30	Development of a robust nitrate sensor for online measurements Geert Franken, Wageningen University and Research, The Netherlands	
O16	10:30-10:45	Influence of different ammonium and nitrate ratio on yield and quality of rocket Antonio Ferrante, University of Milan, Italy	
	10:45-11:00	Question time/Remarks	
	11:00-11:15	Coffee break	
	11:15-13:00	Session IV: Nutrient Solution Management & Salinity (continue) Moderator: Daniele Massa, CREA Research Centre for Vegetable and Ornamental Crops, Italy	
Oral Co	ommunications		
017	11:15-11:30	Performance of hydroponic Pak choi (<i>Brassica rapa</i> subsp. <i>chinensis</i>) under elevated sodium conditions Andrej Svyantek, North Dakota State University, United States of America	
018	11:30-11:45	Dealing with Na accumulation in soilless grown crops with recirculation of drainage	
O19	11:45-12:00	Evaluation of lettuce (<i>Lactuca sativa</i>) production under hydroponic system; organic liquid versus mineral nutrient solution Zienab Ahmed, United Arab Emirates University, United Arab Emirates	
	12:00-12:10	Question time/Remarks	
	12:10-12:20	Meet the sponsors SQM (Koen D'Haeyer) Urbinati s.r.l. (Alessandro Mazzacano) 	
	12:20-13:00	Round table- Discussion forums (DF) DF3: Organic Hydroponics: Research need and Future Perspectives Moderator: Franscesco Di Goia- United States of America	
		DF4: Aquaponics Moderator: Ranka Junge- Switzerland	
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022	16:15-16:30	Microorganisms in aquaponics: insights on their functions and the kinetics of their communities' evolution over the course of a full lettuce growth cycle <i>Mathilde Eck. University of Liege, Belgium.</i>	
O23	16:30-16:45	Microbiome and C supply strategies for the rooting medium of an urban rooftop vegetable farm Bart Vandecasteele, ILVO, Belgium	
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025	09:45-10:00	Biostimulants and their role in improving plant nutrition in hydroponic conditions Andrea Ertani, University of Turin, Italy
O26	10:00-10:15	The impact of heated nutrient solution on yield and chemical composition of hydroponically grown 'baby leaf vegetables Athanasios Koukounaras, Aristotle University of Thessaloniki, Greece
027	10:15-10:30	Design of test and imaging tools to evaluate biostimulant effects on plant roots hydroponically grown Rafael Anton-Herrero, Autonomous University of Madrid, Spain
O28	10:30-10:45	Nutritional value of five new tomato (<i>Solanum lycopersicum</i> L.) cultivars in a commercial glasshouse in the Mediterranean area <i>Onofrio Davide Palmitessa, University of Bari Aldo Moro, Italy</i>
	10:45-11:00	Question time/Remarks
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029	11:45-12:00	Assessing the potential of the hydroponic greenhouse cultivation of leek (Allium porrum) in gutters Robin Van Havermaet, PCG - Vegetable Research Centre, Belgium
	12:00-13:30	Session VIII: Industrial and ISHS WG-Meeting and Closing Ceremony
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