



30th International Horticultural Congress

12 - 16 August 2018 • Istanbul - Turkey

August 13, 2018 - Monday

08:45-09:00

Welcome Session

Session: Greenhouse management and production systems

Chair: Prof. Jung Eek Son (Seoul National University, S. Korea)

09:00-09:15

Abdulaziz Al Harbi, Jouck Campen, Feije de Zwart, Wim Voogt, Kees Scheffers, Ilias Tsafares, Omar Babiker, Mohamed Sharaf, Khalid Alassaf
Effect of different greenhouse covering materials on cucumber growth and yield on hot climate

09:15-09:30

Tom Williams, Wagdy Sobeih, Nigel Paul, Ian Dodd
UV transparent plastic claddings produce warmer crops and improve water use efficiency

09:30-09:45

Tilahun Seyoum Workneh, Ellen Thipe, Mark Laing
A comparison of two greenhouse structures (open-ended and fan-pad ventilated) under sub-humid conditions and the effects on tomato production

09:45-10:00

Thomas Bartzanas, Anna Vatsanidou, Nikolaos Katsoulas
Environmental assessment of a close hydroponic greenhouse system

10:00-10:15

Tilahun Seyoum Workneh, Ellen Thipe, Mark Laing
Winter greenhouse microclimate and its effect on butterhead lettuce

10:15-10:30

Qichang Yang, Yi Zhang, Hui Fang, Wei Lu, Bo Zhou, Ruifeng Cheng
Solar thermal utilization and structure innovation of the Chinese Solar Greenhouse

10:30-11:00

Coffee Break / Poster Presentations

Session: Automation and Environmental Control

Chair: Dr. Eiji Goto (Chiba University, Japan)

11:00-11:15

Avital Bechar (Key note)

11:15-11:30

Robotics and intelligent automation for precision agricultural tasks in protected cultivation

11:30-11:45

Ki-Ho Son, Shinichi Furuyama, Kanako Hayashi, Yasuhiro Ishigami, Shoko Hikosaka, Eiji Goto
Enhancement of bioactive compound accumulation in red leaf lettuce by UV light manipulation before harvest

11:45-12:00

Prof. Dr. Masayoshi Shigyo
Development of next-generation light irradiation techniques for japanese plant factor system powered by light-emitting diode

12:00-12:15

Pierre Emmanuel Bournet, Eric Brajeul, Vincent Truffault, Etienne Chantoiseau, Rami Naccour
Impact of heating location, forced ventilation and screens on the energy efficiency and condensation risks inside a cucumber greenhouse

12:15-12:30

Rack-woo Kim, Sangyeon Lee, Uk-hyeon Yeo, In-bok Lee, Jin-su
Analysis of aerodynamic problems of domestic greenhouses and development of educational VR (virtual reality) simulator

12:30-14:00

Lunch / Poster Presentations





30th International Horticultural Congress

12 - 16 August 2018 • Istanbul - Turkey

Session: Crop Management

Chair: **Dr. Pierre Emmanuel Bournet (Agrocampus Ouest-France)**

14:00-14:15	Ewan Gage, Chloe Whiteside, Isabel Whiteley, Henri Tapp, Barry Mulholland Optimizing carbon dioxide offtake by commercial UK tomato crops
14:15-14:30	Ad de Koning, Dionysios Tarnavas, Ilias Tsafaras, Cecilia Stanghellini Practical implementation and evaluation of optimal carbon dioxide supply control
14:30-14:45	Abdulaziz Al Harbi, Jouck Campen, Feije de Zwart, Wim Voogt, Kees Scheffers, Ilias Tsafares, Omar Babiker, Mohamed Sharaf, Khalid Alassaf Influence of CO ₂ concentration on tomato growth and yield grown in closed greenhouse
14:45-15:00	Hicham Fatnassi, Marco Cossu, Ricardo Suay, Christine Poncet Photovoltaic greenhouses in the Mediterranean basin: investigation on these innovative combined production systems
15:00-15:15	Irineo Lopez Cruz, Agustin Ruiz-García, Antonio Martínez-Ruiz, Marisa Gallardo Uncertainty analyses of the VegSyst model applied to greenhouse crops
15:15-15:30	Saneyuki Kawabata, Yusuke Yata, Shoko Hashida, Atsuyuki Yukawa Improving cooling/heating load and construction cost of indoor farming facilities through the use of aluminum sheet as the covering material
15:30-16:00	Coffee Break / Poster Presentations

Session Chair: **Dr. Xiuming Hao (Harrow Research and Development Centre, Canada)**

16:00-16:15	Rack-woo Kim, In-bok Lee Development of 3D shape model of tomato crop for estimating aerodynamic resistance in CFD simulation
16:15-16:30	In Ha Hwang, Woo Hyun Kang, Jaewoo Kim, Kyoung Sub Park, Jung-Eek Son Estimation of light interception, photosynthesis, and light use efficiency with 3D scanned models of paprika by growth stage in greenhouses
16:30-16:45	Woo Hyun Kang, Jaewoo Kim, Jung Eek Son Plant photoreceptor absorption as a quantitative measure for plant photomorphogenic characteristics of incidence spectra
16:45-17:00	Paul Fisher, Yai Ulrich Adegbola, Alan Hodges Economic evaluation of manual and robotic transplanting of plant cuttings
17:00-17:15	Mathala Juliet Gupta, Thangam Muniappan, Arunachalam Vadivel Microclimatic Studies in a Double-span Greenhouse under Wind Driven and Fan Ventilated Conditions in West Coast of India
17:15-17:30	Caruso Gianluca, Laura Pietrantonio, Nadezhda A. Golubkina, Eugenio Cozzolino, Michele Sellitto, Antonio Cuciniello Yield and quality performances of tomato 'cherry' inoculated with beneficial microorganisms in saline soils
17:30-17:45	He Chaoxing, Jun Ma, Martina Janouskova, Xianchang Yu Role of arbuscular mycorrhiza in alleviating the effect of cold on the photosynthesis of cucumber seedlings
17:45-19:00	Poster Discussion

