

MONDAY 15 AUGUST

08:30 - 10:00

PLENARY SESSION 1: ADAPTATION TO CLIMATE CHANGES AND EFFECT MITIGATION

KEYNOTE SPEAKERS : Jean Jouzel and Rachel Bezner Kerr

S1: INTERNATIONAL SYMPOSIUM ON BREEDING AND EFFECTIVE USE OF BIOTECHNOLOGY AND MOLECULAR TOOLS IN HORTICULTURAL CROPS

Symposium supported by :



ORAL PRESENTATIONS

Session 01 - Genome editing and genetic transformation

Amphitheatre Jardin - Screen 1

Chairs: Andrea Patocchi, Agroscope, Switzerland and Efen Santos, ESPOL, Ecuador

10:30	Field investigation of consequences from the genetic modification resulting in the fire blight resistant cisgenic apple line	Andrea Patocchi *, Ina Schlathölder, Giovanni A.L. Broggin, Bruno Studer, Michael Meissle, Jörg Romeis
10:45	Multi-omics investigation identifies no unintended changes in the genome, transcriptome, proteome and metabolome of the cisgenic fire blight resistant apple line	Giovanni Broggin *, Schlathoelter Ina, Bruno Studer, Patocchi Andrea
11:00	Biofortified bananas – a panacea to address the vitamin A deficiency	Backiyarani Suthanthiram *, Eugin Perianayagaraj Selvaraj, Durai Palani, Saranya Swaminathan, Mayil Vaganan Muthu, Selvaraj Vadivel, Uma Subbaraya
11:15	An LTR retrotransposon may activate the PsMYB10.2 gene expression and promote anthocyanin biosynthesis in the fruit flesh of Japanese plum. A success history of the CRISPR-Cas9 enrichment sequencing strategy	Maria José Aranzana *, Arnau Fiol, Federico Jurado-Ruiz, Sergio García, Christian Dujak, Elena López-Girona, Igor Pacheco
11:30	Genome editing of apple - Establishing a workflow for the generation of homohistont mutant lines	Susan Schröpfer *, Henryk Flachowsky
11:45	Study of Rose RoFT transgenic plants	Laurence Hibrand-Saint Oyant *, Latifa Hamama, Julien Bosselut, Jérôme Chameau, Séverine Foucrier, Julien Jeauffre, Laurent Ogé, Tatiana Thouroude, Linda Voisine, Fabrice Foucher
12:00	A marker-free cisgenesis/genome editing system, a new tool to produce fortified citrus fruits	Concetta Licciardello *, Angelo Ciacciulli, Helena Domenica, Marco Caruso, Massimo Pindo, Stefano Piazza, Mickael Malnoy
12:15	Establishing a genome editing platform for banana in Ecuador: challenges and regulation	Efen Santos *, Eduardo Sánchez, Liliana Villao

Session 02 - Genomes and molecular markers

Amphitheatre Jardin - Screen 1

Chairs: Loren Honaas, USDA-ARS, USA and Massimo Iorizzo, North Carolina State University, USA

15:30	How to explain QTL imbalance between ohnologous chromosomes?	Tanguy Lallemand *, Sébastien Aubourg, Jean-Marc Celton, Claudine Landès
15:45	The role of epigenetic modifications in the transcriptional regulation of long noncoding RNAs in Brassica rapa vegetables	Yoshiki Kamiya *, Hasan Mehraj, Satoshi Takahashi, Ayasha Akter, Naomi Miyaji, Motoaki Seki, Elizabeth S. Dennis, Kenji Osabe, Ryo Fujimoto

16:00	Vaccinium CAP: a community-based project to develop advanced genetic and genomic tools to improve fruit quality in blueberry and cranberry	Massimo Iorizzo *, Mary Ann Lila, Penelope Perkins-Veazie, Marti Pottorff, Molla Mengist Fentie, Ann Colonna, Nicholi Vorsa, Patrick Edger, Nahla Bassil, Claire Luby, Ted Mackey, Patricio Munoz, Juan Zalapa, Karina Gallardo, Amaya Atucha, Dorrie Main, Lara Giongo, Changying Li, James Polashock, Charles Sims, Elizabeth Canales, Lisa De Vetter, David Chagne, Richard Espley, Michael Coe
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16:15	Genetic information from phased SNP array data can improve assemblies of whole genome sequences	Stijn Vanderzande *, Cameron Peace
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16:30	Gene family analysis in Rosaceae	Loren Honaas *, Huiting Zhang, Heidi Hargarten, Eric Wafula, Tyler Biggs, John Hadish, Sook Jung, James Mattheis, Doreen Main, Claude dePamphilis, Stephen Ficklin
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16:45	Identification of genes responding to apple replant disease (ARD) using an RNAseq approach	Stefanie Reim *, Alessandro Cestaro, Traud Winkelmann, Henryk Flachowsky
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E-POSTER FLASH PRESENTATIONS

Session P1 - Genomic technologies
Screen S01.1

Amphitheatre Jardin - Screen 1

Chairs: Ryan Warner, Michigan State University, USA and Ying-Huey Cheng, Taiwan Agricultural Research Institute, Taiwan

14:00	Evaluation of molecular markers associated to Tobamovirus resistance genes in pepper landraces of the Basque Country (Northern Spain)	Santiago Larregla del Palacio *, Mikel Ojinaga, Berdaitz Juaristi, Ana. Aragones, Mónica Hernandez
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14:05	Evaluation of CRISPR-associated nucleases for efficient gene editing using a transient protoplast-based expression system	Fabiola Guadalu Ramirez Torres *, Rishikesh Ghogare, Amit Dhingra
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14:10	Detection of genetic modification events in ornamental plants	Julie Mallet *, Anne-Laure Boutigny, Nicolas Dohin, David Pornin, Mathieu Rolland
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14:15	Production of high Brix tomato by genome editing of the invertase inhibitor gene	Katsuhiro Shiratake *, Kohei Kawaguchi, Rie Takei-Hoshi, Ikue Yoshikawa, Keiji Nishida, Makoto Kobayash, Miyako Kusano, Lu Yu , Tohru Ariizumi, Hiroshi Ezura, Shungo Otagaki, Shogo Matsumoto
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14:20	Targeted mutagenesis of CENTRORADIALIS using the CRISPR/Cas9 system in highbush blueberry	Masafumi Omori *, Hisayo Yamane, Keishi Osakabe, Yuriko Osakabe, Ryutaro Tao
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14:25	Development of synthetic cultivars to improve the production of desired steviol glycosides in Stevia	Ryan Warner *, Patrick Abeli, Randolph Beaudry
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14:30	Development of a viral vector based on the beta satellite associated with ageratum yellow vein virus	Ying-Huey Cheng *
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14:35	Establishment of a CRISPR/Cas9 system for editing of the EIN3 gene in Oncidesa	Yi-Yin Do, Yi-Yin Huang *, Pung-Ling Huang
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14:40	Genome editing of the EIN2 gene in Cattleya using the CRISPR/Cas9 system	Yi-Yin Do, Yu-Ying Liu *, Pung-Ling Huang
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14:45	Tunable genotyping-by-sequencing (tGBS) of a tomato (Solanum lycopersicum) collection	Amol Nankar *, Gancho Pasev, Dimitrina Kostova, Vesela Radeva-Ivanova, Valentina Ivanova, Stanislava Grozeva, Daniela Ganeva, Ivanka Tringovska, Zoran Nikoloski
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14:50	Expression analysis of a mitogen-activated protein kinase (MAPKs) gene family in grapevine berries	Ashkan Hodaei *, stefaan Werbrouck, Birsen Cakir
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14:55	A strategy for the production and molecular validation of Agrobacterium-mediated intragenic octoploid strawberry	Qing-Hua Gao *, Ke Duan, Xiao hua Zou, Jing Yang
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*Indicates presenting author

SYMPOSIUM 1

Session P2 - Genomic selection and markers
Screen S01.2

Amphitheatre Jardin - Screen 2

Chairs: María Carmen Gomez-Jimenez, University of Extremadura, Spain and Ryohei Nakano, Kyoto University, Japan

14:00	Some <i>Coffea liberica</i> SH3-LRR-coding sequences are highly distinguishable	Paula C. da S. Angelo *, Luiz Filipe P. Pereira, Gustavo H. Sera, Eveline T. Caixeta
14:05	A database of genetic variations for horticultural crops of economic interest in Romania based on NGS analysis	Roxana Ciceoi *, Anca Amalia Udriste, Mihaela Iordachescu, Matilda Ciuca, Madalina Butac, Carmen Popescu, Adriana Badulescu, Floarea Burnichi, Liliana Aurelia Badulescu
14:10	Chromosomal re-arrangement detected on chromosome 4 in a novel bud sport of 'Beni-hakuto'; Japanese peach with multiple mutant phenotypes	Ryohei Nakano *, Takashi Kawai, Daisuke Takata, Yuki Taniguchi, Takayuki Tamura, Mamoru Sato, Kazusa Nishimura, Ko Motoki, Akira Yamazaki, Tetsuya Nakazaki, Fumio Fukuda, Koichiro Ushijima
14:15	Transcriptome analysis of <i>Cynara cardunculus</i> L. in southern Portugal	Liliana Marum *, Ana Paulino, Rita Costa Pires, Jacqueline Santos, Teresa Brás, Daniela Rosa, Otávio S. Paulo, M. Fátima Duarte
14:20	Transcript profiling of olive fruit tissues in late development reveals complex vesicle trafficking and hormonal regulation involved in cell wall modifications	María Carmen Gomez-Jimenez *, Beatriz Briegas, María C. Camarero, Jorge Corbacho, Carla Inês, Juana Labrador, Mercedes Gallardo
14:25	Assessment of flesh browning diversity in apple germplasm collections phenotyped by image analysis	Carlos Miranda Jiménez *, Patricia Irisarri, Julia Arellano, Francisco J Bielsa, Ana Valencia, Jorge Urrestarazu, Ana Pina, L. Gonzaga Santesteban, Lourdes Castel, Pilar Errea
14:30	Identification of suitable reference genes for quantitative reverse transcription PCR in sponge gourd (<i>Luffa cylindrica</i>)	Gangjun Zhao *, Haibin Wu, Jianning Luo, Junxing Li, Hao Gong, Xiaoming Zheng, Xiaoxi Liu, Siying Zhao
14:35	Using genomic selection to predict heat-tolerant tomato accessions	Le Kang *, Shin-Ruei Lee
14:40	Phenotypic evaluation of autotetraploid apple	Monika Marat *, Malgorzata Podwyszynska, Danuta Wójcik, Agnieszka Marasek, Zbigniew Buler, Mariusz Lewandowski, Przemyslaw Tomczyk, Jacek Filipczak
14:45	Hybridization assays in <i>Hibiscus rosa-sinensis</i> L.: artificial pollination, cloning of F1 seedlings and molecular analysis of the hybrids	Mariana Neves *, Jéssica Batista, Ana Pedrosa, Tércia Lopes, Sandra Correia, Jorge Canhoto
14:50	SNP and haplotype-based genomic prediction of fruit firmness and soluble solids content in sweet cherry (<i>Prunus avium</i>)	Norman Munyengwa *, Peace Cameron, Daniel Ortiz-Barrientos, Natalie Dillon, Alexander Myburg, Craig Hardner
14:55	High quality genomes of <i>Luffa cylindrica</i> and <i>L. acutangula</i>	Haibin Wu *, Gangjun Zhao, Jianning Luo, Junqiu Chen, Hao Gong, Junxing Li, Xiaoli He, Shaobo Luo, Xiaoming Zheng, Xiaoxi Liu

Session P3 - Genomes and markers
Screen S01.1

Amphitheatre Jardin - Screen 1

Chair: Hae Keun Yun, Yeungnam University, Korea

17:10	Primary structure of the XTH family gene members from <i>Carica papaya</i>	Didiana Galvez-Lopez *, Raymundo Rafael Rodriguez-Dominguez, Miguel Salvador-Figueroa, Alfredo Vazquez-Ovando, Raymundo Rosas-Quijano
17:15	Selection of differentially expressed genes from transcriptomes of blooming female flower clusters in <i>Vitis flexuosa</i>	Hae Keun Yun *, Seung Heui Kim, Soon Young Ahn, Seon Ae kim

*Indicates presenting author

17:20	Genetic diversity in the plantain (<i>Musa sp.</i>) collection in Côte d'Ivoire revealed by single nucleotide polymorphism markers	Kouamé Germain Koffi *, Nda désiré Pokou, Deless Fulgence Thiémélé
17:25	The influence of gene duplication mechanisms on evolution in the Rosaceae	Martin Leduc *
17:30	Comparative analysis of genetic diversity and genetic relationships using morphological characters and ISSR analysis	Arak Tira-Umphon *, Pramote Pornsuriya

Session P4 - Phenotyping and markers
Screen S01.2

Amphitheatre Jardin - Screen 2

Chair: Sevtap Doksöz Boncukçu, Tokat Gaziosmanpaşa University, Turkey

17:10	Use of X-ray-induced mutations in S alleles in sweet cherry breeding	Pavol Suran *, Veronika Nekvindova, Jana Cmejlova
17:15	Development and comparison of phenotypic methods for colour assessment and polyphenolic composition evaluation in red flesh apples	Pierre Bouillon *, Anne-Laure Fanciullino, Sandrine Balzergue, Sylvain Hanteville, Etienne Belin, Héléne Muranty, Frédéric Bernard, Jean-Marc Celton
17:20	Determination of hybridization possibilities between <i>Solanum melongena</i> and wild relatives for rootstock and line breeding	Sevtap Doksöz Boncukçu *, Naif Gebololu
17:25	Identification of DNA molecular markers relevant to fruit characteristics using GWAS in apple	Cheol Choi *, A Reum Han

S3: INTERNATIONAL SYMPOSIUM ON QUALITY SEEDS AND TRANSPLANTS FOR HORTICULTURAL CROPS AND RESTORATIVE SPECIES

ORAL PRESENTATIONS

Session O1 - Germination and seedling emergence

Cointreau Room - Screen 1

Chair: Charles Laubscher, Cape Peninsula University of Technology, South Africa

10:30	Keynote: Understanding seed behavior: populations of Individuals	Kent J. Bradford, University of California Davis, USA
11:15	Factors limiting seed yields in hybrid carrot	Alistair Gracie *, Angus Dunbabin, Amy Lucas, Joanna Jones, Cameron Spurr
11:30	Phenotyping seedling emergence in legumes : a new tool towards understanding phenotypic plasticity of seed vigor	Olivier Leprince *, Julia Buitink, Joseph Ly Vu, David Rousseau, Angelina El Ghazir, Hadhami Garbougé
11:45	Natural genetic diversity of barrel medic provides insight into the physiological bases of legume early seedling performance and plasticity to nitrate	Béatrice Teulat *, Douae Ben Hdech, Catherine Aubry, Françoise Montrichard, Bénédicte Alibert, Daniel Beucher, Guillaume Tcherkez, Anis M Limami
12:00	Timing and rate strategies for seed priming on parsley transplant production	Andre da Silva *, Zachary Jones, Wheeler Foshee, Juliano Resende
12:15	Is juglone really the only allelochemical in <i>Jugla regia</i> ?	Aljaz Medic *, Metka Hudina, Jerneja Jakopic, Robert Veberic

Session O2 - Abiotic and biotic influences on seedling and transplant quality

Cointreau Room - Screen 1

Chair: Birte Boelt, Birte Boelt, Aarhus University, Denmark

15:30	Keynote: The potential of microbiome research for horticulture: from seed to fruit	Gabriele Berg, Graz University of Technology, Austria; Leibniz-Institute for Agricultural Engineering Potsdam, University of Potsdam, Germany
16:00	Evaluation of seed treatments for the control of <i>Colletotrichum lindemuthianum</i> and <i>P. savastanoi</i> pv. <i>Phaseolicola</i> organic production of bean: establishing the tests «prerequisite»	Carlo Gamper Cardinali *, Joelle Herforth-Rahmé
16:15	New tools for organic plant nutrition: microbial and aminoacid treatments for organic seed production of broccoli (<i>Brassica oleracea</i> var. <i>italica</i> Plenck.)	Simone Treccarichi *, Riccardo Cali, Donata Arena, Giulio Flavio Rizzo, Davide Felis, Ferdinando Branca

MONDAY 15 AUGUST

SYMPOSIUM 3

16:30	Exploring the role of light-emitting diodes during the healing of grafted vegetable seedlings	Athanasios Koukounaras *, Filippos Bantis, Christodoulos Daggitsis
16:45	Screening morpho-physiological and yield traits for improving grafted tomato transplant performance under abiotic stresses	Daniel Leskovar *, Desire Djidonou, Samikshya Bhattarai, Chungkeun Lee, Josh Harvey, Kevin Crosby
E-POSTER FLASH PRESENTATIONS		
<i>Session P1 - Seed quality and production</i> Screen S03.1 Chair: Béatrice Teulat, Institut Agro, France		Cointreau Room - Screen 1
14:00	A floral induction system to analyze seed lot intra variability in Arabidopsis and perspectives for seed production in horticultural species	Julia Zinsmeister *, Pierre Mercier, Tereza Dobisova, Hubert Schaller, Szymon Swiezewski
14:05	Nitrogen supply affects seed yield and quality in tomato plants	Samuel Contreras *, Javier Sánchez, Francisco Albornoz
14:10	The effect of grafting on organic tomato seed production in Brittany	Amelie Detterbeck *, Hervé Flourey, Thibault Nordey
14:15	Effects of fruit cooling, harvesting frequency and timing on organic seed production quality of eight tomato genotypes	Joelle Herforth-Rahmé *, Patricia Schwitter
14:20	<i>Stemphylium</i> sp. in Danish spinach seed production	Birte Boelt *, Asbjorn Molmer Sahlholdt, Thies Marten Heick
14:25	Presence of gibberellins in habanero pepper seeds	Homero Ramirez *, Aaron Melendres, Alejandro Zermeño, José ngel Villarreal, Diana Jasso
14:30	Abiotic influences on seed germination of three spring flowering Asteraceae annuals from the winter-rainfall region of South Africa	Charles Laubscher *, Roger Oliver
14:35	Seed treatments with beneficial microorganisms affect root structure and biomass of cucumber seedlings	Giuseppe Colla, Mariateresa Cardarelli, Francesca Luziatelli, Maurizio Ruzzi, Youssef Roupheal *
14:40	Guidelines for the caper seeds collection and selection for commercial use	María Laura Foschi *, Mariano Juan, Bernardo Pascual
14:45	Gibberellins improve caper seeds germination: guidelines for their application	María Laura Foschi*, Mariano Juan, Bernardo Pascual
14:50	Pathogen transmission by the seed. The necrotrophic fungus <i>Alternaria brassicicola</i> might hijack immune response in Arabidopsis germinating seeds for its own propagation	Mailen Ortega-Cuadros *, Nubia Velasquez, Tiago Lodi De Souza, Romain Berruye2, Sophie Aligon, Sandra Pelletier, Jean-Pierre Renou, Tatiana Arias, Claire Campion, Thomas Guillemette, Jérôme Verdier and Philippe Grappin
<i>Session P2 - Transplants and plant propagation</i> Screen S03.1 Chair: Andre Luiz Biscaia Ribeiro da Silva, Auburn University, USA		Cointreau Room - Screen 1
17:10	Hi-tech seed potato production system: prospects and problems	Harishchandra Prasad Singh *
17:15	Standardization of Technology for Mass Planting and Establishment of Ghaf tree (<i>Prosopis cineraria</i> L.)	Zienab Ahmed *, Fatima Hassan, Mohammed Alyafei, Shyam Kurup, Nabra Al Busaidi
17:20	Growth And Yield Characteristics of "Daeseo" Variety Garlic Bulbs following Meristem Culture	Byeonggyu Min *, Gilseog Park, Mijin Lee, Jaecheol Seo, Miae Kim, Mijeong Park, Injong Ha
17:25	Impact of wide range of light spectra and intensities on grafted cucumber seedlings during healing and acclimatization	Farzaneh Bekhradi *, Mohamad Mohammadian, Sasan Aliniaefard, Mahmoud Lotfi

S4: INTERNATIONAL SYMPOSIUM ON IN VITRO TECHNOLOGY AND MICROPROPAGATED PLANTS

ORAL PRESENTATIONS

Session O1 - New tools I

Chair: Sandra Correia, University of Coimbra, Portugal

Atrium 3 - Screen 1

10:30	Keynote: Novel approaches to micropropagation, rooting and acclimatization for a wide variety of horticultural crops	Jeffrey W. Adelberg *
11:00	Do not worry, be happy: facilitating data acquisitions by Codessian image phenotyping tool	Verónica Codesido Sampedro *, José Garrido Gala, Carlos Ferreira-Vera, Jesús Hidalgo
11:15	New diphenylurea-derived cytokinin oxidase/dehydrogenase inhibitors for plant tissue culture	Stefaan Werbrouck *, Nino Murvanidze, Jaroslav Nisler
11:30	Bioregulation of adventitious root induction by metabolites secreted from Plant Growth-Promoting <i>Pantoea agglomerans</i> strains -	Caterina Valerio *, Gabriele Medori, Francesca Luziatelli, Francesca Melini, Lorenzo Gatti, Maurizio Ruzzi, Rosario Muleo, Ivano Forgione
11:45	Examining the Stages of Micropropagation for Hemp (<i>Cannabis sativa</i> L.)	Mark P. Bridgen *, Conor Stephen, Victor Zayas
12:00	Micropropagation of <i>Duboisia</i> species via shoot tip meristem -	Yuxin Xue *, Jayeni Hiti Bandaralage, Dilani Jambuthenne Gamaralalage, Neena Mitter
12:15	Micrografting in almond (<i>Prunus dulcis</i>) Portuguese varieties for production of disease-free plants	Ana Faustino, Rita Costa Pires, Sandra Caeiro, Armindo Rosa, António Marreiro, Jorge Canhoto, Sandra Correia, Liliana Marum *

Session O1 - New tools II

Chair: Stefaan Werbrouck, Ghent University, Belgium

Atrium 3 - Screen 1

15:30	Keynote: Modern cytokinin derivatives – synthesis, bioactivity and use in tissue cultures	Magdalena Bryksova *, Lucie Plihalova, Karel Dolezal
16:00	Aggregated nanoporous microparticles for slow release of plant growth regulators and their use for in vitro tissue culture	Saba Taheri *, Bogdan Parakhon, Andre Skirtach, Stefaan Werbrouck
16:15	Improving in vitro shoot growth of <i>Moringa oleifera</i> Lam. (miracle tree) using temporary immersion bioreactors	Elsa S. Du Toit *, Elmiën Coetser, Gerhard Prinsloo
16:30	Tamarillo breeding – better plants for better products	Sandra Correia, Jorge Canhoto *
16:45	Somaclonal variation in micropropagated berry crops an epigenetic approach	Samir Debnath *

E-POSTER FLASH PRESENTATIONS

Session P1 - New Tools I

Screen S04.1

Chair: Jorge Canhoto, University of Coimbra, Portugal

Atrium 3 - Screen 1

14:00	NO ₃ - and NH ₄ ⁺ levels of MS medium for the in vitro growth of dragon fruit	Breno Ítalo Durães Santana, Renato Paiva *, Michele Valquíria dos Reis, Lissa Vasconcellos Vilas Bôas
14:05	Effect of silver nanoparticles on the micropropagation of two apricot (<i>Prunus armeniaca</i> L.) cultivars	Lorenzo Burgos *, Cristian Pérez-Caselles, Nuria Alburquerque, Inmaculada Sánchez-Balibrea
14:10	Reducing hyperhydricity, shoot tip and leaf necrosis to improve in vitro quality in <i>Pistacia vera</i> L.	Dhekra Abdouli *, Hassiba fraj, Taoufik Bettaieb, Stefaan Werbrouck
14:15	Strong effects of Dichlorprop-P 2-ethylhexyl on in vitro rooting of <i>Populus x canadensis</i> and <i>Robinia pseudoacacia</i>	Hajer Darouez *, Stefaan Werbrouck

*Indicates presenting author

S6: INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES AND PRODUCTION STRATEGIES FOR SUSTAINABLE CONTROLLED ENVIRONMENT HORTICULTURE

Symposium supported by :



ORAL PRESENTATIONS

Session 01 - Greenhouse climate - modeling I

Auditorium - Screen 1

Chair: Murat Kacira, Agriculture Center, The University of Arizona, USA

10:30	Reducing chill to achieve year-round UK strawberry production.	Sophie Read *, Paul Hadley, Carrie-Anne Twitchen, Mark Else
10:45	Deep Winter Greenhouses for Organic Production of Vegetables in the Northern United States.	Mary Rogers *, Leah Worth, Greg Schweser, Claire Flavin Hodge
11:00	Modeling growth and development of Hemp (<i>Cannabis Sativa</i>) varieties under greenhouse and controlled environment conditions.	Alwin Hopf *, Paul Daiber, Gerrit Hoogenboom, Steven Anderson, Brian Pearson
11:15	Evaluation of environmental parameters of a phytotron for <i>Cannabis</i> cultivation.	Paula Andrea Uribe Benavides *, Juan Manuel Galindo
11:30	An AI approach for greenhouse control combining models, data and knowledge.	Jack Verhoosel *, Behrouz Eslami Mossallam, Ellen van Bergen, Michael van Bekkum, Richard Dekker, Paolo de Heer
11:45	Spatio-temporal characterization of crop growth with multi-category data based on deep learning.	Alvaro Fuentes *, Sook Yoon, Jongbin Park, Jaesu Lee, Mun Haeng Lee, Dong Sun Park

*Indicates presenting author

MONDAY 15 AUGUST

SYMPOSIUM 6

12:00	Reliability of greenhouse climate dynamic models by uncertainty and sensitivity analyses, calibration and evaluation.	Irineo Lopez Cruz *, Efen Fitz-Rodríguez, Raquel Salazar-Moreno, Abraham Rojano-Aguilar
12:15	Smartphone-based strawberry plant growth monitoring by using R-CNN	Seitaro Toda *, Tetsutaka Sakamoto, Yuya Imai, Ryoga Maruko, Takeru Kanoh, Naomichi Fujiuchi, Kotaro Takayama
Session 01 - Greenhouse climate - modeling II Chair: Pierre-Emmanuel Bournet, L'Institut Agro, France		Auditorium - Screen 1
15:30	Using solar energy and absorption chiller to heat, cool and dehumidify tomato greenhouses in France: a feasibility study	Ariane Grisey *, Christophe Levaillant, Vincent Stauffer, Christophe Tardy, Philippe Sourice, Florent Saunier
15:45	Optimizing photosynthetic activity of high-wire cucumber production systems using a functional-structural plant modelling approach.	Gerhard Buck-Sorlin *, Pierre-Emmanuel Bournet, Landry Rossedeutsch, Vincent Truffault
16:00	Sustained growth and yield in elevated greenhouse air temperatures through control of vapor pressure deficit.	Gene A. Giacomelli, Joseph Alcorn *, Brian Scott
16:15	Design, development, and performance testing of a novel porous concrete energy exchanger for agricultural buildings.	Md Sazan Rahman *, Jérôme Trudel-Brais, Sarah MacPherson, Mark Lefsrud
16:30	Leaf wetness duration modeling for the improvement of fungal risk evaluation in low-tech greenhouses.	Sonia Cacini *, Silvia Traversari, Bernardo Rapi, Maurizio Romani, Beatrice Nesi, Daniele Massa, Catello Pane, Francesco Sabatini, Piero Battista
16:45	Experimental and numerical assessment of carbon sequestration in horticultural crops inside a Mediterranean naturally ventilated greenhouse.	Francisco Domingo Molina Aiz *, Mireille N. Honore, Hicham Fatnassi, Alejandro López-Martínez, Diego Luis Valera-Martinez, María ngeles Moreno-Teruel
E-POSTER FLASH PRESENTATIONS		
Session P1 - Advances and impacts of plant modelling for horticultural crops in controlled environments Screen S06.1 Chair: Gerhard Buck-Sorlin, L'Institut Agro, France		Auditorium - Screen 1
14:00	Numerical study of a Venlo greenhouse: one-year results analysis based on energy and crop yield indicators	Samuel Sourisseau *, Cyril Toublanc, Etienne Chantoiseau, Michel Havet
14:05	A process-based crop model for greenhouse smart-farming cultivation of cucumber.	Hyungmin Rho *, Hsi-Chun Hung, Won Jun Jo, Sung Kyeom Kim
14:10	Validation of an empirical heat pipe energy model for practical use in the decision support system 'InfoGrow'	Katrine Kjaer, Shuping Chen, Jesper Aaslyng *, Niels Holst, Jakob Skov Pedersen
14:15	An integrated greenhouse climate-tomato production model with LED interlighting: model description, calibration and validation	Xiaohan Zhou *, Ep Heuvelink, David Katzin, Leo Marcelis
14:20	Improving convenience of nondestructive monitoring method for crop growth with a hanging scale and images using deep neural networks	Taewon Moon *, Dongpil Kim, Sungmin Kwon, Jung Eek Son
14:25	Increasing night temperature in a tunnel without heating system	Ariane Grisey *, Justine Garnodier, Vincent Stauffer
14:30	SERRES+: Towards fossil-fuel-free heated greenhouse system for soilless tomato cultivation	Etienne Chantoiseau *, Yilin Fan, Lionel Fiabane, Patrick Guérin, Abdelouhab Labihi, Serge Le Quillec, Brigitte Pelletier, Cyril Toublanc, Henry Freulon
14:35	Computing crop transpiration and crop temperature	Feije De Zwart *

14:40	Cropbox: A modeling framework for horticultural crop models	Kyungdahm Yun, Soo-Hyung Kim *
14:45	Evaluating indoor acclimation of floriculture plugs	Celina Gomez, Marlon Retana *
14:50	Improvement of resource utilization efficiency based on modeling in large-scale greenhouse tomato cultivation in Japan and implementation in WAGRI-API	Keiichi Kanno *, Dong-Hyuk Ahn
Session P2 - Innovation in hydroponic cultivation systems Screen S06.2 Chair: Nikolaos Katsoulas, University of Thessaly, Greece		Auditorium - Screen 2
14:00	Development of a water flow and nutrients concentration simulation model for cascade hydroponic systems	Nikolaos Katsoulas *, Angeliki Elvanidi, Eleni Karatsivou, Vangelis Vassiliadis
14:05	Evaluating hydroponic cultivation for ornamental bulbous species to enhance flowering and bulb production in a changing climate	Carolyn Wilmot *, Charles Laubscher
14:10	Comparative performance of hydroponically grown broccoli and cauliflower cultivars in different growth seasons	Helena Hartley, Martin Maboko, Retha Slabbert *
14:15	A new way of growing leeks: open air hydroponics proves to be economically feasible	Tomas Van de Sande *, Tim De Cuypere
14:20	Optimal spacing distance in open air hydroponics of leek is determined by auction and seedling price	Tomas Van de Sande *
14:25	First observation on tomato crop in a soilless innovative cultivation system in south of Italy	Giovanni Gugliuzza *, Antonio Giovino, Giuseppe Pachino
14:30	Yield, quality and resource use efficiency of basil grown in alternative soilless growing systems	Andrew Blunk *, Myungjin Lee, Trevor Johnson, Raymond Balaguer, Francesco Di Gioia
14:35	Oxygen-nanobubbles improve root growth and health of lettuce in hydroponics	Zhaolei Sun, Su Liu, Sunmeet Bhatia, Sunil Sapkota, Svetla Sofkova-Bobcheva *
14:40	Potassium concentration affects leaf expansion and growth of hydroponic lettuce	Peyton Palsha *, Marc W van Iersel
14:45	Valorisation of different organic horticulture waste streams as wet food source for entomoponically reared mealworm (<i>Tenebrio molitor</i>)	Simon Craeye *, Carl Coudron, Peter Bleyaert, Maarten Ameye
Session P3- Innovation in agricultural practices to enhance agronomic performance and quality Screen S06.3 Chair: Stefania De Pascale, University of Naples, Italy		Auditorium - Screen 3
14:00	Qualitative responses of rocket varieties to biostimulants application	Alice Petrini *, Giulia Franzoni, Sara Vignati, Davide Guffanti, Francesco Elia Florio, Giacomo Cocetta, Antonio Ferrante
14:05	Use of biostimulants to control damages by high temperatures on the growth and flowering of potted cyclamen	Maria Eva Giorgioni *, Filippo Ghirardi
14:10	Innovative biostimulants improve yield of cucumber grown in date palm waste as a sustainable soilless substrate	Mohamed Ewis Abelaziz, Abdulla Alkhatami, Muein Qaryouti, Wim Voogt, Heribert hirt, Maged Saad, Abdulaziz Alharbi *, Khalid Alassaf
14:15	Soilless cultivation of <i>Crocus sativus</i> L. comparing commercial inoculants of arbuscular mycorrhizal fungi (AMF)	Stefania Stelluti *, Matteo Caser, Sonia Demasi, Nicole Mélanie Falla, Erica Lumini, Valeria Bianciotto, Valentina Scariot
14:20	Combining Microgreens cultivation and biostimulant application in hydroponic systems accentuate yield, quality and economic profitability of functional food	Christophe El Nakhel *, Michele Ciriello, Luigi Formisano, Marios Kyriacou, Youssef Roupael
14:25	Amelioration effects of plant-derived protein hydrolysates on growth and yield of four greenhouse lettuce cultivars	Michele Ciriello *, Luigi Formisano, Christophe El-Nakhel, Francesco Cristofano, Youssef Roupael

*Indicates presenting author

SYMPOSIUM 6

14:30	Enhancing the performance of leafy greens under nutrient deficiency and salinity stress through the application of protein hydrolysates	Youssef Roupheal *, Francesco Cristofano, Christophe El-Nakhel, Giuseppe Colla
14:35	Time dependent metabolic profiling of rosmarinic acid and volatile compounds in selected plants of family Lamiaceae	Dahye Ryu *, JwaYeong Cho, HoYoun Kim, ChuWon Nho
14:40	Growing sweet basil in a Floating Growing System enhances yields, reduces nitrate content, and modulates the aromatic profile	Silvana Nicola *, Patrizia Rubiolo, Barbara Sgorbini, Walter Gaino, Francesco Orsini, Giorgio Prosdocimi Gianquinto, Giuseppina Pennisi
14:45	Germination and conservation of the germinative power of <i>Griffonia simplicifolia</i> (DC.) Baill: African plant of therapeutic and fodder value	A. Raoufou Pierre Radji *, Benziwa Johnson, Marie-Luce Akos Quashie, Kodjo Djidjolé Etsé
14:50	External electric fields with different directions affect growth and cell division of tomato seedlings	Dahae Kim *, Myung-Min Oh
<p>Session P4 - Microclimate factors affecting horticultural yield and quality in controlled environments Screen S06.1 Chair: Etienne Chantoiseau, L'Institut Agro, France</p> <p style="text-align: right;">Auditorium - Screen 1</p>		
17:10	Potential of solar-assisted adsorption cooling system for warm mediterranean greenhouses	T M Abir Ahsan *, Md Shamim Ahamed
17:15	The effects of root zone cooling on lettuce physiology under heat stress	Hyungmin Rho *, Jing-Yuan Hung
17:20	CO2 concentration and air humidity interactively affect the rate of photosynthetic induction, but not loss of induction	Ningyi Zhang *, Yunke Chen, Sarah Berman, Leo Marcelis, Elias Kaiser
17:25	The influence of greenhouse climatic conditions on 13 strawberries varieties in quantitative and qualitative traits	Silvia Locatelli, Carlo Nicoletto *, Paolo Sambo
<p>Session P5 - Holistic growing systems including nutrient effluent management Screen S06.2 Chair: Nikolaos Katsoulas, University of Thessaly, Greece</p> <p style="text-align: right;">Auditorium - Screen 2</p>		
17:10	Environmental impact of aquaponic vegetable production	Nikolaos Katsoulas *, Dimitris Papanastasiou, Maria Aslanidou, Anastasia Mourantian, Vasileios Anestis, Efi Levizou
17:15	Smart Aquaponics: a smart application based on a generalistic model to teach, mimic and monitor Aquaponic systems	Haissam Jijakli *, Pierre Raulier, Benoît Stalport
17:20	Quality evaluation of greenhouse grown lettuce and pepper with reclaimed agro-wastewater by photocatalytic oxidation under natural sunlight	Carmen María Martínez Escudero *, Marina Aliste, Isabel Garrido, Virginia Hernández, Pilar Flores, Pilar Hellín, Simón Navarro, Jose Fenoll
17:25	Remediation of soils polluted with neonicotinoid insecticides residues by ozonation at field scale	Carmen María Martínez Escudero *, Isabel Garrido, Fulgencio Contreras, Marina Aliste, Pilar Flores, Pilar Hellín, Jose Fenoll
<p>Session P6 - Technologies and post harvest methods for successful horticultural production Screen S06.3 Chair: Stefania De Pascale, University of Naples, Italy</p> <p style="text-align: right;">Auditorium - Screen 3</p>		
17:10	Role of technologies in the production of quality seeds and transplants of horticultural crops and restorative species.	Christian Rabin *
17:15	Successful cold storage of blackberry and raspberry plants	Femke De Vis *, Ann Schenk, Dany Bylemans

17:20	Setting up of fungal risk model for the early detection of powdery mildew on <i>Rosa</i> spp	Silvia Traversari, Sonia Cacini *, Piero Battista, Beatrice Nesi, Daniele Massa, Catello Pane, Bernardo Rapi, Maurizio Romani, Francesco Sabatini
17:25	Effects of sun light condition and carbon dioxide concentration on the growth dynamics and the partitioning of the fresh and dry weigh for each organ in tomato	Yasunori Yoshida *, Aki Obara, Hiroomi Kanda, Hiroyuki Imanishi, Naoko Kitamoto, Hayashi Tomohito, Umabayashi Toshihiro, Yoshiaki Izumi, Koichiro Hashiura, Yoshiyuki Kusakari

S11: INTERNATIONAL SYMPOSIUM ON ADAPTATION OF HORTICULTURAL PLANTS TO ABIOTIC STRESSES

ORAL PRESENTATIONS

Session O1 - Exploring the response to multiple abiotic stress
Chair: Bénédicte Wenden, INRAE, France

Botanical Room - Screen 1

10:30	Keynote: Physiological and genetic study inspired insights into tomato responding to multiple abiotic stress	Rong Zhou *, Xiaqing Yu, Eva Rosenqvist, Carl-Otto Ottosen
11:00	Development and utilisation of phenotyping pipelines to assess resilience to transient abiotic stress in vegetable crop populations	James Monaghan *, Andrew Beacham, Olivia Cousins, Guy Barker, Charlotte Allender
11:15	Combat climate change with biodiversity: high throughput phenotyping to feed growth models in function of temperature	Clara Gambart *, Rony Swennen, Sebastien Carpentier
11:30	Combined nitrogen and water stress affects morpho-physiological traits and alters endogenous hormone profile of tomato seedlings	Machado Joana, Joana Machado, Ana Patrícia Gonçalves, Marta W. Vasconcelos, Aurelio Gomez-Cadenas, Ep Heuvelink, Susana Carvalho *
11:45	Genotype-by-environment interactions in major agronomic traits in sweet cherry: flowering date and fruit quality	José Quero Garcia *, Camille Branchereau, Craig Hardner, Bénédicte Wenden, David Alletru, Julien Parmentier, Anton Ivancic, Daniela Giovannini, Federica Brandi, Gregorio Lopez-Ortega, Federico Garcia-Montiel, Elisabeth Dirlewanger
12:00	Soil temperature and water stress affect the physiological response, nutrient uptake and distribution of young pear trees	Victor Blanco *, Lee Kalcsits
12:15	Physiological and molecular responses of stress sensitive and tolerant banana genotypes to drought, heat and their combination	Bal Krishna *, Rakesh S Chaudhari, Bhavesh L Jangale, Prafullachandra V Sane, Aniruddha P Sane

Session O2 - Bud dormancy as a key trait for adaptation to climate change
Chair: José Quero-Garcia, INRAE, France

Botanical Room - Screen 1

15:30	Keynote: Forecasting tree phenology in a climate change context	Eike Luedeling *, Eduardo Fernandez
16:00	Dominant Functions of Japanese apricot PmDAM6 in Vegetative Bud Dormancy by the Controls of Multiple Hormone Metabolism, Lipid Accumulation and Cell Division	Tzu-Fan Hsiang *, Hisayo Yamane, Mei Gao-Takai, Ryutaro Tao
16:15	Elucidating the molecular mechanism of dormancy control and bud break in apple to prepare for climate change	Janne Lempe *, Xiaoying Chen, Vincent Bus, Henryk Flachowsky, Andreas Peil, Satish Kumar
16:30	Epigenome analysis identifies dominant role of H3K4me3 over H3K27me3 in dynamic gene expression regulation underlying apple bud dormancy and bud break	Wenxing Chen, Yosuke Tamada, Hisayo Yamane *, Miwako Matsushita, Yutaro Osako, Mei Gao-Takai, Zhengrong Luo, Ryutaro Tao
16:45	Effectiveness and mechanisms of dormancy breaking treatments for walnuts	Katherine Jarvis-Shean *, Maciej Zwieniecki, Giulia Marino, Kevin Fort

*Indicates presenting author

SYMPOSIUM 11

E-POSTER FLASH PRESENTATIONS

Session P1 - Exploring the response to multiple abiotic stress
Screen S11.1
Chair: James Monaghan, Harper Adams University, UK

Botanical Room - Screen 1

14:00	Interest of traditional tomato varieties adapted to the Mediterranean environmental constraints for their improvement of tomato fruit quality under high temperatures and water scarcity conditions	Manuel Ballesta, Isabel Egea, Yanira Estrada, María Belén Morales, José María Egea-Fernández, María Carmen Bolarín, Francisco B. Flores *
14:05	The combinatorial effects of drought and heat stress on the African eggplant growth	Noémie David-Rogeat *, Eleftheria Stavridou, Martin Broadley
14:10	Drought and adverse spring frost response of different grafting combinations of plum in the South Central region of Bulgaria	Nataliya Dimitrova *, Marieta Nesheva, Nesho Neshev
14:15	Physiological responses of passion fruit to drought stress and attempt to reduce the stress by cross-protection with heat treatment	Tomohiro Kondo *, Ayako Koyama
14:20	Evaluation of low-chill peach (<i>Prunus persica</i> L.) cultivars suitable for arid climate of southern Tunisia	Ines Toumi *, Samir Tlahig, Kamel Nagaz
14:25	Chickpea yield, quality, antioxidants and elemental composition as affected by planting time in southern Italy	Alessio Tallarita *, Nadezdha Golubkina, Eugenio Cozzolino, Antonio Cuciniello, Roberto Maiello, Vincenzo Cenvinzo, Gianluca Caruso
14:30	Investigating the aroma and sensory attributes of fresh herbs	Ana Cristina Contente *, Maria Jose Oruna-Concha, Carol Wagstaff
14:35	The effect of different atmospheric pressure conditions at low and high partial pressures of carbon dioxide on the growth of lettuce	Akinori Shimada *, Hiroyuki Watanabe

Session P5 - Physiological responses to abiotic stress
Screen S11.2

Chair: Adnane El Yaacoubi, École Supérieure de Technologie, Morocco

Botanical Room - Screen 2

14:00	Exploring temperature effects on Brassica vegetable quality through Computational High-throughput Intelligent Phenotyping for Associative Transcriptomics	Jo Hepworth *, Bethany Nichols, Rachel Wells, Kevin Williams, Fiona Corke, Lars Ostergaard, Richard Morris, John Doonan
14:05	Iodine deficiency in horticulture can compromise resilience of crops to abiotic stress: Linking practical examples of loss of yield or lower fruit quality in iodine-deficient crop systems under heat stress to known iodination of plant proteins	Katja Hora *, Harmen Tjalling Holwerda
14:10	Response of three Greek olive varieties to heat stress during flowering	Marina Darioti, Ioanna Manolikaki, Georgios Koubouris *
14:15	Transcriptomic and physiological responses of <i>Diplotaxis tenuifolia</i> under heat stress	Alice Petrini *, Giacomo Cocetta, Antonio Ferrante
14:20	Morphological and physiological analysis of poor development of strawberry fruits under mildly elevated temperatures	Saneyuki Kawabata *, Kazuya Higuchi
14:25	Climate change and the effects of incremental increases in air temperature and CO2 concentrations on the ripening of apple fruit	Osamu Arakawa *, Daiyu Ito, Rakibul Hassan
14:30	Risk reduction measures against sunburn incidences in apple: covering individual on-tree fruit with shading materials	Chikako Honda *, Kenichi Matsuda, Hariya Nakagawa, Katsuaki Ohshiro, Yoshikazu Fujita, Hisataka Mizuno, Tadashi Ito, Hidekazu Ogawa, Hiroshi Iwanami

14:35	Effect of UV-B treatment on yield and quality of basil (<i>Ocimum basilicum</i>)	Giacomo Cocetta, Viviana Cavallaro, Piero Santoro, Jacopo Mori, Antonio Ferrante *
14:40	Rootstock resistance to apple replant disease	Darius Kviklys *
14:45	Impact of salinity stress on fruit quality of different Mediterranean tomato landraces	Theodora Ntanasi *, Georgia Ntatsi, Ioannis Karavidas, Ioannis Ziogas, Georgios Zioviris, Melini Karaolani, Dimitrios Fortis, Vasileios Fotopoulos, Dimitrios Savvas
14:50	Screening local landraces of melon for resilience to salinity stress under hydroponic greenhouse conditions	Theodora Ntanasi *, Georgia Ntatsi, Ioannis Karavidas, Georgios Outos, Georgios Maloukos, Vasileios Fotopoulos, Dimitrios Savvas
14:55	The effects of plant growth-promoting bacteria on the physiological properties, nutrition contents and growth performance in lettuce under heat-stress conditions	Hyungmin Rho *

Session P2 - Bud dormancy as a key trait for adaptation to climate change
Screen S11.1

Chair: Katherine Jarvis-Shean, UC ANR, USA

Botanical Room - Screen 1

17:10	Effect of temperature on the dormancy process and satisfying of chilling requirements for apple in Morocco	Adnane El Yaacoubi *, Meryem Erami, Ossama Kodad
17:15	DNA hypomethylation induced by 5-azacytidine promotes dormancy release in <i>Prunus Avium</i> L	Esteban Soto *, Erica Fadon, Eduardo Fernandez, Thorsten Kraska
17:20	Molecular analysis of bud dormancy regulation by temperature in sweet cherry	Bénédicte Wenden *, Mathieu Fouché, Hélène Christmann, Xavier Lafon, Armel Donkpegan
17:25	Effects of the elevated temperature on phenological changes and fruit quality of 'Mihong' peach	Seul-Ki Lee*, Jeom Hwa Han, Jung-Gun Jo, Jae Hoon Jeong, Suhyun Ryu

Session P5 - Physiological responses to abiotic stress
Screen S11.2

Chair: José Quero-García, INRAE, France

Botanical Room - Screen 2

17:10	Response of growth parameters of pepper accessions to flooding	Seok-Beom Kang *, Myeong-Cheol Cho, Yun-Young Yang, Tsung-Han Lin, Shih-Wen Lin, Yen-Wei Wang, Derek Barchenger, Hyungmin Rho
17:15	Physiological and transcriptomic response of different <i>Citrus</i> rootstocks to salt stress	Mario Di Guardo *, Giulia Modica, Fabio Arcidiacono, Daria Costantino, Andrea Baglieri, Ivana Puglisi, Stefano La Malfa, Alberto Continella, Alessandra Gentile
17:20	Seed priming by light radiation mitigates the negative effects of high salinity on photosynthesis and growth of lettuce plants	Salah Fgaier *, Jawad Aarouf, Félicie Lauri, Yves Lizzi, Florine Poiroux, Laurent Urban
17:25	Biostimulants improve the leaf micro-morphology and essential oil biosynthesis of simulated hail-damaged <i>Pelargonium graveolens</i> (L'Hér.)	Zenzile Peter Khetsha *, Moosa Mahmood Sedibe, Rudolph J. Pretorius, Elmarie Van Der Watt

S13: INTERNATIONAL SYMPOSIUM ON PLANT NUTRITION, FERTILIZATION, SOIL MANAGEMENT

ORAL PRESENTATIONS

Session O1 - Soil fertility management and C-N fluxes in agroecosystems
Chair: Patrice Cannavo, Institut Agro, France

Panoramic Room - Screen 1

10:30	Keynote: Moving towards sustainable horticulture by nurturing soil ecosystem services	Kate Congreves *
11:00	The response of celeriac yield, quality and soil nitrate residue to nitrogen fertilization and supply	Karoline D'Haene *, Danny Callens, Georges Hofman

*Indicates presenting author

11:15	Irrigation management is a key farmer practice for a better use of nitrate; a case study in an intensive open field endive crop	Alisa Barth, José Luis Ruiz-García, David Hortelano, María Rosa Martínez-Meroño, Margarita Parra, Diego Intrigliolo, José Salvador Rubio-Asensio *
11:30	Long term results of water protection measures to reduce nitrate leaching from vegetable cropping in water protection areas in Baden-Württemberg, Germany	Karin Rather *
11:45	Apple trees enhance the soil microbial activity in a garden-orchard system	Toky Ramananjatovo *, Juliette Peugeot, Pascale Guillermin, Etienne Chantoiseau, Mickael Delaire, Gerhard Buck-Sorlin, René Guénon, Patrice Cannavo
12:00	Nitrogen management strategies for strawberry production in California	Andre Biscaro *, Patrick Brown
12:15	Biomass production of five cover crops in relation with some soil-quality indicators and colonization by arbuscular mycorrhiza fungi	Sundoss Kabalan *, Borbála Biro, Katalin Juhos, Eszter Toth

Session 02 - Mineral fertilizer optimization and management Chair: Mehdi Sharifi, Agriculture Canada, Canada

Panoramic Room - Screen 1

15:30	Struvite as a reliable and more environmental friendly alternative of nutrients for vegetable crops	José Salvador Rubio-Asensio *, José Luis Ruiz-García, Margarita Parra, Rosa María Martínez-Meroño, Diego Intrigliolo
15:45	Effect of different aluminium supplies during vegetative phase and sepal blueing in hydrangea inflorescence	Hanaé Roman *, Vincent Guerin, Lydie Huché-Thélier, Béra Ley-Ngardigal, Elise Herbommez, Thomas Eveleens, Nathalie Leduc
16:00	Optimizing nitrogen application for growth, productivity and quality of pomegranates	Arnon Dag *, Uri Yermiyahu, Yang Lyu, Yehuda Heler, Silit Lazare
16:15	Effects of foliar application of zinc nanoparticles in lettuce (<i>Lactuca sativa</i> L.) plants	Ruta Sutuliene *, Jurga Miliauskiene, Ausra Brazaityte, Simona Tuckute, Martynas Urbutis

E-POSTER FLASH PRESENTATIONS

Session P1 - Soil fertility management Screen S13.1

Chair: Patrice Cannavo, Institut Agro, France

Panoramic Room - Screen 1

14:00	Field-grown spinach - can the soil sampling depth for calculation of the nitrogen base fertilization be reduced to 15 cm?	Christian Frerichs *, Diemo Daum
14:05	Measurement of the nitrogen supply via mineralization in field-grown spinach	Christian Frerichs *, Diemo Daum
14:10	Ways of improved soil management through valorisation of crop residues in the Senegal River Valley	Daniel Kalnin *, Bettina Fähnrich
14:15	Soil organomineral fertilization in carrot crop	Jose Magno Luz *, Hugo Franco Rosa, Roberta Camargo Oliveira, Jarbas Reis Silva, Maikon Douglas Almeida
14:20	Modelling carbon and nitrogen dynamics to optimise the production and retention of soil organic matter and nitrogen in root vegetable production	Marcus Travers *, Athanos Paschalis
14:25	Survey on micro- and nano-plastics in agricultural soils in Europe	Sheila Hofer, Anja Vieweger, Joelle Herforth-Rahmé *
14:30	Properties of organic compost from vineyard pruning residues and wine lees and evaluation when used as soil improver for grapevine saplings under various irrigation treatments	Eleni Lampraki, Pinelopi Baltzoi *, Ioannis Tsirogiannis, Georgios Patakioutas, Nikolaos Mantzos, Dimitrios Kyrkas, Georgios Gizas

14:35	Meta-analysis on the effects of living mulches in organic and conventional vegetable production: Influence on soil nitrogen uptake and weed suppression	Sophie Stein *, Malena Mehring, Jens Hartung, Kurt Möller, Sabine Zikeli
14:40	Soil water and fertilizer retention and bulk density as improved by gel polymer	Bahlebi Eiasu *
14:45	Biochar-compost and cover crop use for enhancing soil carbon and nitrogen contents in an irrigated vineyard in Okanagan Valley, British Columbia, Canada	Mehdi Sharifi *, Monireh Hajjaghaei-Kamrani
14:50	Fertility assessment of several permacultural raised beds of various composition	Haissam Jijakli *, Caroline De Clerck, Ludivine Lassois, Florence Jacques, Damien Médart, Gilles Colinet, Sébastien Massart, Aurore Degré, Pierre Delaplace

Session P2 - Mineral and organic fertilization Screen S13.2

Chair: Lee Kalcsits, Washington State University, USA

Panoramic Room - Screen 2

14:00	Enhancing growth, yield and nutritional quality of pepper using mineral fertilizer together with moringa leaf powder (MLP)	Bonga Ngcobo *, Isa Bertling, Alistair Clulow
14:05	Impact of organic and conventional farming practices on yield and nutritional quality of broccoli	Georgia Ntatsi *, Ioannis Karavidas, Theodora Ntanasi, Andreas Ropokis, Dimitrios Savvas
14:10	Effect of calcium concentration and medium pH on peach growth and chlorophyll content in vitro	Francisca Carrasco-Cuello *, Laia Jené, Ramon Dolcet-Sanjuan, Josep Rufat, Estanis Torres
14:15	Influence of different doses of organic fertilizer from poultry fertilized pellets on melon and cucumber crops	Gabriela Sovarel *, Ioan Scurtu, Gicuta Sbirciog
14:20	Seasonal variation of leaf Ca, Fe, and Mn concentration in six olive cultivars	Ioanna Manolikaki, Nektaria Digalaki, Georgios Psarras, Konstantinos Tzerakis, Chrysi Sergentani, Anastasia Papamanolioudaki, Safiye Tul, Georgios Koubouris *
14:25	Evaluation of threshold values of nutritional indicators in 3 outdoor horticultural crops	José María Vadillo, carmen Gimenez, Carlos Campillo Torres *, María del Henar Prieto
14:30	Crushed fibrous bamboo as a potting substrate for French marigold	Takashi Fudano *, Yuuta Akiba
14:35	Impact of phosphate fertilization and arbuscular mycorrhiza on the development, nutrition and quality of micropropagated walnut rootstocks	Emma Mortier, Olivier Lamotte, Laurent Jouve *, Samuel Jacquiod, Fabrice Martin Laurent, Ghislaine Recorbet
14:40	A regulatory opportunity for lab to field transfer of biostimulant substances	Mathieu Conseil, Yann Davillerd *, Patrice Marchand
14:45	Lime and P fertiliser application to improve shallot bulb yield in extremely acid soil condition	Gina Sopha *, Catur Hermanto, Huub Kerckhoffs, Julian Heyes, James Hanly
14:50	The effect of high concentration of liquid fertilizer and high temperature to water uptake of paprika seedlings	Jinen Hojo *, Takashi Ikeda
14:55	Effect of environment friendly organic solvent on nitrogen release and membrane properties of polymer coated controlled release urea	Junsong Liu *

Session P2 - Mineral and organic fertilization Screen S13.1

Chair: Arnon Dag, Agricultural Research Organization - Volcani Institute, Israel

Panoramic Room - Screen 1

17:10	Silicon application influence imbalance between nitrogen and potassium fertilization in young olive plant	Inmaculada Martos-García *, María Benlloch-González, Ricardo Fernández-Escobar
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*Indicates presenting author

MONDAY 15 AUGUST

SYMPOSIUM 13

17:15	Mineral nutrition and internal defects in vapour heat treated mango	Muhammad Asad Ullah *, Daryl C. Joyce, Amit Khanal, Andrew J. Macnish, Neil A. White, Priya A. Joyce, Richard I. Webb
17:20	Influence of suboptimal macro and micronutrient concentrations on growth and development of cucumber (<i>Cucumis sativus</i> L.)	Dharmalingam Pitchay *, Garrett Morris, Rob Mikkelsen

S15: INTERNATIONAL SYMPOSIUM ON AGROECOLOGY AND SYSTEM APPROACH FOR SUSTAINABLE AND RESILIENT HORTICULTURAL PRODUCTION

ORAL PRESENTATIONS

Session 01 - Biodiversity as a pillar of agroecology Chair: Ferdinando Branca, University of Catania, Italy

Open Garden Room - Screen 1

10:30	Special address: Agroecology, a viable path for food production in a planet in crisis	Clara Nicholls *
11:00	Effect of cultural practices and landscape on the entomological biodiversity of agro-ecosystems in Senegal	Karamoko Diarra *, Mamadou Diatte, El Hadji Serign Sylla, Babacar Labou, Etienne Tendeng, Seydina O. Seydi, Amadou Balde, Pape Diop, Serigne O. Sene, Issa A. Ndiaye
11:15	Biodiversity in apple orchards - an assessment towards increased sustainability and resilience	Hannah Jaenicke *, André Hamm
11:30	Co-design of agroecological temperate fruit tree systems in France: the ALTO project	Jean-Michel Ricard *, Sylvaine Simon, Pierre-Eric Lauri, Aude Alaphilippe, Solène Borne, Servane Penvern, Arnaud Dufils, Marion Michaud
11:45	Crop rotations in organic greenhouse production: effects of increased crop diversity on the soil microbiome	Anna Rosberg *, Beatrix Alsanus
12:00	Is there a relationship between cultural factors and the establishment of agroecological systems with different designs and their impact on soil fauna? Experiences from 4 Chilean regions	Sara Burbi *, Santiago Peredo Parada, Claudia Barrera Salas
12:15	Innovative agroforestry designs for tropical plantation landscapes - The TRAILS Project	Alain Rival *, Marc Ancrenaz, Isabelle Lackman, Muhammad Al Shafiq Bin Mustafah, Jean-Marc Roda, Philippe Guizol, Marcel Djama

Session 02 - Design and evaluation of agroecosystems Chair: Kevin Morel, INRAE, France

Open Garden Room - Screen 1

15:30	Tree root interactions revealed by metabarcoding in agroforestry systems	Shahla Bai *, Rachel Wilson, Godfrey Hannel, Alexander Keller, Alison Shapcott, Birte Komolong, Michaël B Farrar, Helen M Wallace
15:45	Biodiversified agrosystems: do we need more knowledge on plant architecture and functioning? The case of fruit trees	Pierre-Eric Lauri *, Simon Douard, Jérôme Chappot de la Chanonie, Frédéric Normand
16:00	SYDRA: towards agroecological cider apple orchard systems	Anne Guerin *, Alice Denis, Nathalie Corroyer, Bruno Corroyer, Jean-Charles Cardon, Bertrand Cailly
16:15	EcoPêche 2 project : Conceive and evaluate innovative peach orchard management systems designed to reduce TFI by 80%	J.Ruesch *, Yannick Montrognon, Baptiste Labeyrie, Myriam Codini, Eric Holstalnou, Stéphanie Drusch, Julie Borg, Daniel Plenet, Valérie Gallia, M. Guiraud, Christophe Mouiren, Philippe Blanc
16:30	Environmental assessment of contrasted French organic vegetable farms	Antonin Pépin *, Hayo van der Werf, Kevin Morel, Dominique Grasselly, Marie Knudsen

16:45	Organic and biodynamic vegetable production in low energy consumption greenhouses. Sustainable, resilient and innovative food production systems	Sandra Anselmo *, Daniel Tran, Robert Farinet, Y. Fleury, Céline Gilli, Cédric Camps
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E-POSTER FLASH PRESENTATIONS

Session P1 - Biodiversity as a pillar of agroecology Screen S15.1 Chair: Hannah Jaenicke, University of Bonn, Germany

Open Garden Room - Screen 1

14:00	Developing new varieties of broccoli, bean and tomato for a resilient efficient and sustainable organic vegetable production: the results of H2020 BRESOV project	Ferdinando Branca *, Roberto Papa, Elena Bitocchi, Juan Jose Ferreira, Teodoro Cardí, Pasquale Tripodi, Rafael Lozano, Jaroslava Ovesna, Peter Walley, Jaime Prohens
14:05	Evaluation of Brassica crops for morphological and biochemical characteristics	Donata Arena *, Simone Treccarichi, Maria Concetta Di Bella, Hejer Ben Ammar, Valentina Picchi, Roberto Lo Scalzo
14:10	Floral resources in conservation biological control	Lene Sigsgaard *, Xueqing He
14:15	Beneficial insects on shelter plants associated with organic tomato crop (<i>Solanum lycopersicum</i> L.)	Aparicio Acosta-Mendoza, Alexander Rodriguez-Berrio, Saray Siura *
14:20	Resilient organic berry cropping systems through enhanced biodiversity and innovative management strategies	Annette Reineke, Daniel Pleissner, Oana-Crina Bujor-Nenita, Rachid Lahlali, Abdelali Blenzar, Grzegorz Doruchowski, Bogdan Mihalcea, Lene Sigsgaard *
14:25	Design and evaluation of strategies using repellent or deterrent plants to protect leek crops against <i>Thrips tabaci</i>	Sébastien Picault *, Thibault Nordey, Thomas Deslandes
14:30	Native bee species with buzz-behavior can achieve high-performance pollination of highbush blueberry crops of Chile	Jose Neiva Mesquita Neto *, Benito Cortés Rivas, Cecilia Smith-Ramirez, Victor Hugo Monzón
14:35	Introduction of aromatic plants and beehives to enhance ecosystem services in traditional olive orchards	Ana Moreno-Delafuente *, Omar Antón, Ramón Bienes, Adrián Borrego, Alfredo Cuevas, Andrés García-Díaz, Dr. Blanca Sastre
14:40	DEPHY EXPE STOP Project: for the transition of current horticultural systems to agroecological systems without chemicals uses in a tropical area	Rachel Graindorge *, Joel HUAT, Luc Vanhuffel, Josian Delaunay, Marlene Marquier, Toulassi Nurbel
14:45	Managing for multifunctionality: exploring the potential of healthy soils to support ecological functions in orchard agroecosystems	Amelie Gaudin *, Krista Marshall, Katherine Jarvis-Shean, Amanda Hodson, Timothy Bowles
14:50	Beyond the nutrient supply of organic fertilizers: impact on plant natural defenses against pathogens	Adam Barrada, Maxime Delisle-Houde, Eva Ors, Thi Thuy An Nguyen, Russell J. Tweddell, Martine Dorais *

Session P2 - Design and evaluation of agroecosystems Screen S15.2 Chair: Pierre-Eric Lauri, INRAE, France

Open Garden Room - Screen 2

14:00	Fruit, vegetable and horticulture DEPHY project results, assessment of over 10 years of existence of the network for these 3 sectors	Cathy Eckert *, Baptiste Labeyrie, Ardavan Soleymani
14:05	Potential of agroforestry systems as sustainable alternatives in Yurimaguas (Peru)	Liliana Aragón *, Heidi Huarhua, Mildrek Cerna, Juan Flores, Alexis Dueñas, Paquita Lao, Reynaldo Solis, Andres Casas, Julio Alegre
14:10	Light deprivation as a herbicide?	Antonia Engel, Michael Blanke *
14:15	Decision rules in vegetables: a steering, support and training tool	Cathy Eckert *, Vincent Faloya, Matthieu Hirschy, Sophie Szilvasi, C. Puech, Agathe Mansion-Vaquier, C. Gautier, Vianney Estorgues
14:20	Opportunities and limitations of bulb onion (<i>Allium cepa</i> L.) crop rotation systems related to upland crops in Gyeongsangnam-do Province in Korea Republic	Injong Ha *, Byeonggyu Min, Gilseog Park, Mijin Lee, Jaecheol Seo, Taeja Kim

*Indicates presenting author

14:25	Opportunities and limitations of garlic (<i>Allium sativum</i> L.) crop rotation systems related to upland crops in Gyeongsangnam-do Province in Korea Republic	Byeonggyu Min *, Gilseog Park, Mijin Lee, Jaecheol Seo, Taeja Kim, Injong Ha
14:30	European Innovation Partnership – Plant Health	Aline Vandewalle, L. Perez *
14:35	Effects of intercropping medicinal and aromatic plants (MAPs) on grapevine cv. Sangiovese berry volatile compounds	Daniela Mota-Segantini, Alessandra Lombini, Arleen Rodriguez Declet *, Rosa De Giorgio, Claudio DOnofrio, Adamo Domenico Rombolà
14:40	Competition and facilitation processes between sweet pepper and associated crops in additive intercropping system	Benjamin Perrin, Laure Parès, Cindy Leroy, Pascal Pradere, Lucile Comes, Esther Guillot, Amélie Lefèvre*
14:45	Yield and quality performance of some sweet pepper varieties under the influence of organic cultivation	Creola Brezeanu *, Petre M. Brezeanu, Silvica Ambăruș, Andreea Antal-Tremurici, Alexandru Bute, Tina Oana Cristea, C. Benchea
14:50	Composting as a nature-based solution for cope with circularity challenges in horticulture; studies of nitrification within composting and the use of these composts in sustainable horticulture	Rafaela Cáceres *, Carmen Biel, Carlos Ortiz
14:55	Phytosanitary practices in the market gardening area of Niayes, Senegal	Mamadou Diatte*, Babacar Labou, Serigne Sylla, Etienne Tendeng, Issa Alé Ndiaye, Serigne Omar Sene, Amadou Balde, Omar Seydi, Pape Diop, Karamoko Diarra

S17: INTERNATIONAL SYMPOSIUM ON INTEGRATIVE APPROACHES TO PRODUCT QUALITY IN FRUITS AND VEGETABLES

ORAL PRESENTATIONS

Session 01 - Mechanisms underlying quality traits
Chair: Alyson Mitchell UC Davis USA

Amphitheatre Lagon

15:30	Keynote: Carotenoid content in mature tomato fruits under soil water deficit: accounting the role of pre-maturing processes through carotenoid kinetics and cell microscopy	Thomas Breniere *, Nadia Bertin, Anne-Laure Fanciullino
15:45	Chlorophyll breakdown in fruits: The relevance of the senescence-related pheophorbide a oxygenase/phyllobilin (PaO/PB) pathway during ripening and biotic stress.	Michael Oberhuber *, Peter Robatscher, Lisa Marie Gorfer
16:00	Apple firmness relies on cell wall architecture.	Marc Lahaye *, Mickael Delaire, Mathilde Orsel, Remi Bauduin
16:15	Strengthening fruit-skin resistance to cracking by application of plant growth regulators.	Idit Ginzberg *, Raphae Stern, Yulia Kaplan
16:30	Modifying the texture of tomato purees through variety selection or processing methods do not affect the same physical parameters and rheological mechanisms.	David Page *, Miarka Sinkora, Lucas Lanoë, Robert Giovinazzo, François ZUBER, Anne-Laure Fanciullino, Nadia Bertin
16:45	New insights into phenotypic plasticity for quality related criteria in carrot.	Wilfried Chevalier *, Didier Peltier, Emmanuel Geoffriau
17:00	CmERF I-2 regulates sucrose accumulation in oriental melon fruit by inhibiting the interaction between CmMYB44 and CmSPS1.	Hongyan Qi *, Ge Gao, Fan Yang, Cheng Wang

E-POSTER FLASH PRESENTATIONS

Session P1 - Mechanisms underlying quality traits
Screen S17.1
Chair: Alyson Mitchell, UC Davis, USA

Room 302

14:00	Distribution of sugar contents and solute accumulations in a fruit of watermelons	Sentaro Tomiyama *, Kenta Yanagida, Yusuke Matsumoto, Nana sato, Masako Osawa, Takashi Ikeda
14:05	Preharvest application of methyl jasmonate on sweet cherry cv. 'Regina' improved fruit quality reduced occurrence of an herbaceous off-flavor	Carolina Contreras *, Juan David Villavicencio, Juan Pablo Zoffoli, José O'Brien, Anne Plotto
14:10	Multiomic analysis to investigate the effect of light quality on metabolism in tomato fruit	Lingran Xiao *, Tomoki Shibuya, Manabu Nishiyama, Kazuhisa Kato, Yoshinori Kanayama
14:15	Abscisic acid (ABA) signal transduction and nordihydroguaiaretic acid (NDGA) affect sugar metabolism in grape berries	Satoru Kondo *, Hiroyuki Tomiyama, Miho Ishioka, Takanori Saito, Katsuya Okawa, Hitoshi Ohara
14:20	How do the water-soluble cell wall polysaccharides contribute to formation of complexes with condensed tannins during processing?	Xuwe Liu *, Catherine M.G.C Renard, Agnès Rolland-Sabaté, Jiayi Li, Serge Perez, Carine Le Bourvellec
14:25	Characterization of micro-cracking of Tomato Fruit	Ryosuke Hosoi *, Tomoyuki Nabeshima, Takashi Nishizawa
14:30	Profile of organic acids and synephrine in Satsuma mandarins	Luna Maslov Bandic *, Marija Sigurnjak Bures, Kristina Vlahovick-Kahlina, Slaven Juric, Boris Duralija
14:35	Differential expression of key enzymes involved in fruit flesh browning in apple	Francisco J Bielsa, Irisarri Patricia, Jorge Urrestarazu, Pilar Errea, Carlos Miranda, L Gonzaga Santesteban, Ana Pina Sobrino *
14:40	Elicitation: an effective strategy to increase Capsicum secondary metabolites of interest to support animal health	Coline Pons *, Laurent Urban, Jawad Aarouf, Raphaël Lugan, Clémence Messant-Monier, Camille Rozier
14:45	Immunolocalization of pectins and arabinogalactan proteins during fruit abscission in olive (<i>Olea europaea</i>)	María Carmen Gomez-Jimenez *, Ruben Parra, Mercedes Gallardo, Juana Labrador

Session P4 - Quality build-up under the impact of the impact of pre- and post-harvest factors I
Screen S17.2
Chair: Elizabeth Mitcham, UC Davis, USA

Room 303

14:00	Characteristics of broccoli which influence its purchase and preparation by German consumers.	Tabea Isabel Hinz, Christian Frank, Alexander Frieman *, Ulrich Enneking, Diemo Daum*
14:05	Innovative fruit-based products to increase fruit consumption, promote health and reduce food wastes	Maribel Abadias *, Daniel Rico, Ana Belén Martin-Diana, Ingrid Aguiló-Aguayo
14:10	Investigating a local leek production to promote a value chain in the territory of the new District of the Food	Silvana Nicola *, Roberta Bulgari, Andrea Ertani, Alice Petrini, Marco Devecchi
14:15	Healthy cashew pseudofruit, a productive alternative in the North East Colombian Amazonian region	Maria Soledad Hernandez *, Carina Gutierrez
14:20	Comparison of Okra (<i>Abelmoschus esculentus</i> L.) sales characteristics in the main production areas and capital cities in Japan	Nanako Miyamoto *, Lime Sato, Satoru Motoki
14:25	Comparison of tomato distribution in Japan and several other countries	Misa Shimazu *, Satoru Mtoki
14:30	Application of strontium (87Sr/86Sr) isotope analysis for the origin determination of fruits and vegetables	Peter Robatscher *, Agnese Aguzzoni, Michele Bassi, Emanuela Pignotti, Judith Zelger, Samira Chizzali, Hannes Puntischer, Felix Bacher, Walter Guerra, Pietro Zignale, Giulio Voto, Francesca Scandellari, Massimo Tagliavini, Werner Tirler
14:35	Status of macroelements in leek on the Zagreb market	Marko Petek *, Lorena Bego, Tomislav Karazija, Mirjana Herak Custic, Tomas Losak, Sanja Fabek Uher

*Indicates presenting author

MONDAY 15 AUGUST

SYMPOSIUM 17

Session P2 - Measuring and Evaluating quality at harvest and after harvest
Screen 17.1
Chair: Thomas Breniere, INRAE, France

Room 302

17:10	A biophysical model of apple (<i>Malus domestica</i>) and pear (<i>Pyrus communis</i>) fruit growth	Bart Dequeker *, Jakub Salagovic, Moges Retta, Pieter Verboven, Bart Nicolai
17:15	Aroma profiles of resting time after pan-firing during oolong tea processing	Shu-Yen Lin *, Po-An Chen, Yu-Ching Huang

Session P4 - Quality build-up under the impact of pre- and post-harvest factors II
Screen 17.2
Chair: Anne-Laure Fanciullino, INRAE IRHS, France

Room 303

17:10	Resource efficiency optimisation of 2nd class vegetables via biorefinery solutions to improve sustainability in the agrifood chain and climate change resilience: the European project "DEMETER"	Frédéric Carlin *
17:15	Optimization and effect of high-pressure processing on the microbial, physico-chemical quality and aromatic volatile composition of young aromatic coconut (<i>Cocos nucifera</i> L.) water	Peerasak Chaiprasart *, Aummara Thongklin, Boonsong Saeng-on, Jetsada Wichaphon, Noppharat Intha, Nuchanat Phakdee
17:20	Dehydrated asai pulp, an alternative to preserve its functional characteristics	Maria Soledad Hernandez *, Andres Martinez
17:25	Impact of industrial freezing on quality attributes of carrot slices	Sidsel Fiskaa Hagen *, Gesine Schmidt, Grethe I. Borge, Sveinung Grimsby

S19 : INTERNATIONAL SYMPOSIUM ON ADVANCES IN BERRY CROPS

ORAL PRESENTATIONS

Session 01 - Genetic and genomic studies
Chair: Susan Mc Callum, James Hutton Institute, UK

Amphitheatre Volney

10:30	Keynote: genome-wide association of blueberry fruit quality traits	Patricio R. Munoz *
11:00	DNA methylation and epigenetic variation in <i>Vaccinium</i> plants	Umanath Sharma *, Abir U Igamberdiev, Samir C Debnath
11:15	Pan genome of strawberry varieties in Japan	Isobe Sachiko *, Kenta Shirasawa, Hideki Hirakawa, Megumi Hamano, Katsutoshi Ryu, Takeshi Kurokura
11:30	Genome-wide analysis of G-type lectin genes family in <i>Fragaria vesca</i> and functional characterization of FaMBL1 gene in defense response of <i>F. x ananassa</i> to fungal pathogens	Francesca Negrini *, Lijing Ma, Zeraye Haile Mehari, Silvia Sabbadini, Bruno Mezzetti, Elena Baraldi
11:45	Spatiotemporal genome-wide DNA methylation changes during blueberry ripening and DNA demethylation-induced cluster ripening	Taishan Li *, Yamane Hisayo, Ryutaro Tao

Session 02 - Breeding and tools for breeding
Chair: Béatrice Denoyes, INRAE, France

Amphitheatre Volney

12:00	Effect of wild genotypes on strawberry fruit nutritional quality in UNIVPM breeding program	Rohullah Qaderi *, Luca Mazzoni, Franco Capocasa, Francesca Balducci, Micol Marcellini, Valeria Pergolotti, Giammarco Giovanetti, Davide Raffaelli, Bruno Mezzetti
12:15	Blackcurrant (<i>Ribes nigrum</i> L.) breeding and achievements at the National Institute of Horticultural Research in Skierniewice, Poland	Stanislaw Pluta *, Lukasz Seliga, Edward Zurawicz

Session 02 - Breeding and tools for breeding
Chair: Béatrice Denoyes, INRAE, France

Amphitheatre Volney

15:30	Keynote: Berry genetic resources: decades of global conservation	Kim Hummer *
16:00	Raspberry breeding and agronomy for mild winter climates	Francisco Luz *, Teresa Valdivieso, Pedro B. Oliveira
16:15	A genome assembly sheds light on dormancy breaking candidate genes of blackcurrant (<i>R. nigrum</i>) buds	Freya Ziegler *, Anita Sonstebj, Agnieszka Masny, Sonia Osorio-Algar, Björn Usadel
16:30	Assessment of the phenotype and ability to cross of bilberry autotetraploids (<i>Vaccinium myrtillus</i> L.) with highbush blueberry (<i>V. corymbosum</i> L.)	Malgorzata Podwyszynska *, Katarzyna Mynett, Monika Markiewicz, Stanislaw Pluta, Agnieszka Marasek-Cioakowska
16:45	Pre-breeding strategies for obtaining new resilient and added value berries	Bruno Mezzetti *, Klaus Olbricht, Jahn Davik, Sonia Osorio, Salla Karhu, Björn Usadel, Lena Prochnow

E-POSTER FLASH PRESENTATIONS

Session P1 - Cultural techniques including new approaches
Screen S19.1
Chair: Jorge Retamales, University de Talca, Chile

Room 05

14:00	Landscape- vs. field-level hive density effects on honeybee visitation and blueberry pollination	Maxime Eraerts, Bob Gillespie, Lisa DeVetter *
14:05	Alternative management systems of 'Columbia Star' trailing blackberry for improved machine-harvested yield & quality	Amanda Davis *, Bernadine Strik, David Bryla
14:10	Industry changes in organic production systems of northern highbush blueberry in oregon based on research outcomes	Bernadine C. Strik *, Amanda Davis
14:15	Practices for increasing calcium content and improving fruit quality and shelf life of blueberries	David Bryla *, Scott Orr, Lisa DeVetter, Wei Yang
14:20	Effects of gibberellic acid and forchlorfenuron on fruit set in 'Stevens' and 'Mullica Queen' cranberry	Giverson Mupambi *, Peter Jeranyama
14:25	Effect of mulch on soil moisture and temperature under golden currant (<i>Ribes aureum</i> Pursh.) plantation	Kaspars Kampuss *
14:30	Sensitivity of 'Sulhyang' strawberry leaves and flower treatments with some concentration of 'Vi-perfect'(the other name 'Clean Oxide™), Korean mixing-emulsion technical stabilized chlorine dioxide(ClO ₂) at Good-Morning-Ddalgi(means strawberry) farm	SeungYong Oh *, Yong Jin Gong, Gwang Hee Han, Young Sik Jeun
14:35	Assessing the efficacy of a tabletop day-neutral strawberry production system for Minnesota	Kate Fessler *, Emily Hoover, Neil Anderson
14:40	Effect of vermicompost application strategies on field strawberry healthiness, yield and fruit quality	Valda Laugale *, Sandra Dane, Inta Krasnova, Sarmite Strautina
14:45	Pollen viability and in vitro pollen germination studies of some blueberry cultivars	Nesibe Ebru Kafkas *, Duygu Ayvaz Sönmez, Senay Karabiyik

Session P2 - Breeding and tools for breeding
Screen S19.2
Chair: Laura Jaakola, Arctic University of Norway, Norway

Room 06

14:00	Pocahontas': A vigorous and highly productive American elderberry	Andrew Thomas *, Patrick Byers, Rockey Starnes, Samuel Sergeant, Aaron Templemire, Kelly McGowan, Benjamin Schuessler, Michael Gold
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*Indicates presenting author

14:05	Polyploidy and characteristics of breeding lines from direct hybridizations between rabbiteye and southern highbush blueberries	Yue-Yu Chen, Kuo-Tan Li *
14:10	The Breeding value integrated data platform	Elisa Senger *, Paul Shaw, Sebastian Raubach, Klaus Olbricht, Björn Usadel
14:15	VacCAP produces a targeted capture genotyping platform for blueberry	Nahla V. Bassil *, Mandie Driskill, Patrick Edger, David Chagne, Sara Montanari, Susan Thompson, Richard Espley, Patricio Munoz, Juliana Benevenuto, Dongyan Zhao, Moira Sheehan, Molla Fentie, Lisa J. Rowland, Hamid Ashrafi, Kalpalatha Melmaiee, Ebrahiem Babiker, James Olmstead, Jessica Gilbert, Joel Kniskern, Massimo Iorizzo
14:20	Breeding Strategies on Gray Mold Disease in Turkey	Nesibe Ebru Kafkas, duygu ayvaz sönmez, Salih Kafkas *, paizilia Aibiubula, Hale Esen , omer faruk bilgin, Seral Yucel
14:25	CF10122 (name is upcoming) a new mid term variety of strawberry with good production and greater taste	Raphaël Maitre *, Karen Grasland, Philippe Chartier
14:30	The Estonian blackcurrant cultivar 'Elmar'	Ave Kikas *, Asta-Virve Libek
14:35	Goji berry cultivation in Romania, a pathway between traditional uses and modern breeding, cultivation, and citizens acceptance	Roxana Ciceoi *, Mala Stavrescu-Bedivan, Vasilica Luchian, Florin Stanica, Adrian Asanica
14:40	Breeding of highbush blueberry (<i>Vaccinium corymbosum</i> L.) at National Institute of Horticultural Research, Skierniewice, Poland	Stanislaw Pluta *, Lukasz Seliga
14:45	Epigenetic regulation of somatic embryogenesis in berry plants	Samir Debnath *, Amrita Ghosh
14:50	Genetic variation study of several Romanian blueberry (<i>Vaccinium corymbosum</i> L.) cultivars using RAPD molecular markers	Mihai Cosmin-Alexandru *, Mihaela Iordachescu, Cristina Ionescu, Adrian Constant Asanica
<p>Session P3 - Biotic and abiotic stresses Screen S19.1 Chair: Francisco Luz, Pólo de Inovação da Fataca, Portugal</p>		
17:10	Population fluctuation and infestation levels of <i>Zaprionus indianus</i> Gupta (Diptera: Drosophilidae) in berry crops of northwestern Argentina	Enzo Allori Stazonelli, Claudia F. Funes, Daniel Kirschbaum *
17:15	Winter and spring temperature variations affect blueberry production in subtropical climates	Yang-Xi Zheng, Kuo-Tan Li *
17:20	Can flower morphology prevent <i>Cladosporium</i> fruit rot in fall raspberry production?	Francisco Luz *, Manuel F. Roque, Cândida S. Trindade, Teresa Valdivieso, Pedro B. Oliveira
17:25	Resilience of berry breeding germplasm in Europe: One important task in the European BreedingValue project	Klaus Olbricht *, Bruno Mezzetti, Jahn Davik, Sonia Osorio, Salla Karhu, Björn Usadel, Lena Prochnow, Konstanze Scheurer, Dora Pinczinger
<p>Session P4 - Biotic and abiotic stresses Screen S19.2 Chair: Luca Mazzoni, Università Politecnica delle Marche, Italy</p>		
17:10	Importance of determining infection by <i>Phytophthora</i> spp. in raspberry collapses in long-cane system	Manuel Roque *, Eugénio Diogo, Mariana Mota, Pedro Brás de Oliveira
17:15	SIGS, an innovative strategy for powdery mildew resistance in strawberry crop?	Raphaël Maitre *, Marion Turquet, Christophe Carmagnat, Philippe Chartier, Silvia Sabbadini, Francesca Negrini, Bruno Mezzetti, Elena Baraldi, Aurélie Petit
17:20	Biological control against <i>Pseudaulacaspis pentagona</i>	Richard Lothion *

S21: XII INTERNATIONAL SYMPOSIUM ON BANANA : CELEBRATING BANANA ORGANIC PRODUCTION

Symposium supported by :



ORAL PRESENTATIONS

Session 01 - Current state of organic production in the world: challenges and innovations
Chair: Walter Ocimati, Alliance of Bioversity International and CIAT, Uganda

Amphitheatre Inca

10:30	Keynote: The state and evolution of organic fruit and vegetables: production and market at world scale	Helga Willer *
11:00	Keynote: The world of organic banana: a review of production, markets, sustainability and current and future trends	Carolina Dawson *, Hans Willem Van der Waal *
11:30	Towards organic production of plantain banana: striking a balance between agronomic performance, economic viability and environment	Pauline Pugeaux *, Thierry LESCOT, Christian CHABRIER, Raphaël ACHARD, Sylvain DEPIGNY
11:45	Multidisciplinary assessment of a long term experimentation on banana organic farming in Martinique	Mathieu Coulis *, Marie Sauvadet, Alice Prochasson, Lucas Tsoukas, Anaïs Falk, Laurent Gervais, Loïc Normand, Elisabeth Rosalie, Raphaël Achard, Loïc Monsoreau, Nelly Belliard, Christiane Mauriol, Olivier Birba, George Ornem, Maurice Alier, Eliane Marville, Marie-Odette Daribo, Jérôme Sainte-Rose, David Dural, Karine Vincent, Thierry Vilna, Marcus Hery, Luc De Lapeyre de Bellaire, Claire Guillermet, Simon Gibert
12:00	Tapping into the wealth of local banana diversity for pest and disease resistance and consumer acceptability: a catalogue of the 10 most popular varieties in markets across the world	Rachel Chase, Miguel Dita, Aman Omondi, Beatrice Ekesa, Sijun Zheng, Nicolas Roux *
12:15	Experiences in organic banana production at Golden Organics Limited (GOL), the organic banana production subsidiary of the Compagnie Fruitière Group in Ghana	Alain Normand *, Louise Ecochard
12:30	Ecological and organic plantain: a new model for income improvement and economic growth in Benin	Rene Tokannou *

Session 02 - Organic nutrition (plant): experience and new directions
Chair: Thierry Lescot, Cirad, France

Amphitheatre Inca

15:30	Keynote: How we can optimize the interaction of micro-organisms and plants in organic systems for better nutrition	Marc-André Selosse *
16:00	Soil fatigue in Israel: first steps in identifying causal agents and developing a mitigating cultivation protocol	Navot Galpaz *, Gal Or, Idan Elingold, Avi Tsarfati, Gilad Hadar
16:15	Mineral nutrition of banana in organic agriculture	Marc Dorel *, Steewy Lakhia, Raphaël Achard

E-POSTER FLASH PRESENTATIONS

Session P1 - Banana organic production: Challenges, innovations and new directions
Screen S21.1
Chair: Nicolas Roux, Alliance of Bioversity International and CIAT, France

Amphitheatre Inca

14:00	Towards sustainable and diversified organic banana-coffee systems in eastern DR Congo	Walter Ocimati, Guy Blomme *, Nancy Safari Kitumaini, Jules Ntamwira
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*Indicates presenting author

14:05	Combat climate change with biodiversity: high throughput phenotyping of the banana diversity for suitability in current and future agro-ecozones	Clara Gambart *, Rony Swennen, Sebastien Carpentier
14:10	Managing water a challenge in cultivation of horticultural crops- A case study on banana crop cultivation in semi-arid region of India	Harishchandra Prasad Singh *, Jai Singh PARIHAR
14:15	Nutrient budgeting and quantifying recyclable nutrients in banana residues for organic banana production	Jeyabaskaran Kandallu Jayaraman *, Pitchaimuthu R, Uma S
14:20	Effect of different organic manures with graded levels of inorganic fertilisers on banana cv. Poovan	Jeyabaskaran Kandallu Jayaraman *, Anitha Sree T, Uma S
14:25	African Yam bean (<i>Sphenostylis Stenocarpa</i>) intercrop enhances growth of micro-propagated plantain (<i>Musa sp.</i> AAB cv. 'Agbagba')	Catherine Oluwakemi Esuola *, Odunayo Joseph Olawuyi
14:30	Stationary liquid medium enhanced micropropagation of plantain (<i>Musa sp.</i> AAB cv. 'Agbagba')	Catherine Oluwakemi Esuola *, Olufunmilayo A. Amoran
14:35	Meeting organic export banana nitrogen demand from local sources: options and estimates for Peru and Dominican Republic	Charles Staver *, Pablo Siles, Martin Mena, Rein Van der Hoek, Domingo Rengifo, Juan Carlos Rojas Llanque, Esdwin Nunez, Gustavo Gandini, Philippe Tixier
14:40	Growth and nutrient content of sprouted plantain (<i>Musa</i> AAB) bits in response to organic fertilizers	Isaac Ore Aiyelaagbe *, Mercy Owoeye
14:45	Growth response of a ratoon crop of plantain (<i>Musa</i> AAB) cv. Agbagba to a plantain thrash-based compost	Isaac Ore Aiyelaagbe *, Rasidat Seriki
14:50	Identification of banana cultivars adapted to ecologically intensified cropping systems without chemical input	Manon Rapetti *, Régis Ramassamy, Marc Dorel

S23: INTERNATIONAL SYMPOSIUM ON POSTHARVEST TECHNOLOGIES TO REDUCE FOOD LOSSES

ORAL PRESENTATIONS

Session 01 - New technologies and innovations in postharvest
Chair: Bart Nicolai, Katholieke Universiteit Leuven, Belgium

Amphitheatre Pocquet

10:30	Keynote: Innovative advances of postharvest technologies for sustainability	Christopher B. Watkins *
11:00	The benefits and risks of short low oxygen treatment on the shelf-life of fast-melting 'Swelling' peach	Itay Maoz *, Akhilesh Yadav, Kamal Tyagi, Bettina Kochanek, Haya Friedman, Amnon Lichter
11:15	Effectiveness evaluation of in-store harvesting system by analyzing the VOC of sweet basil with GC-SAW	Naoki Sakaguchi *, Masahiro Kitajima, Yoshihisa Usami, Riichiro Oka, Naomichi Fujiuchi, Kotaro Takayama
11:30	Optimization of LED lighting in post-harvest to control ripening and improve quality attributes tomatoes	Ivan Paucek, Elisa Appolloni, Giovanni Fiori, Chiara Pastore, Antonio Cellini, Giuseppina Pennisi, Andrea Crepaldi, Irene Donati, Francesco Spinelli, Francesco Orsini *, Giorgio Gianquinto
11:45	Apples cold storage under high relative humidity with HDCOLD refrigeration technology	Kévin Vidot *, Valérie Lemetter, Benoît Duparc, Christophe Despierres
12:00	Application of supercharged air (cold plasma) technology to mitigate food safety risks and postharvest losses in fresh fruits	Sukhvinder Pal (SP) Singh *

12:15	Effects of X-ray and Gamma ray irradiation on the physico-chemical qualities of Mango cv. Nam Doc Mai Si Thong (<i>Mangifera indica</i> L.)	Peerasak Chaiprasart *, Phongrapi Wichitkunan, Noppharat Intha, Nutchanat Phakdee, Boonsong Saeng-on, Suwimol Jetawattana
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Session 02 - MAP and CA

Chair: Randolph Beaudry, Michigan State University, USA

Amphitheatre Pocquet

15:30	Role of micro-perforations on ethylene transmission rate in packaging materials used for fresh produce	Akshay Dagadu Sonawane *, Namrata Pathak, Pramod Mahajan
15:45	Effect of RQ-based dynamic controlled atmosphere on some quality attributes and volatile aroma metabolites (VAMs) of 'Jonagold' apples	Karimi Solomon *, Maarten Hertog, Bart Nicolai
16:00	Effect of edible coatings on the quality characteristics of sweet cherry during postharvest storage	Sílvia Afonso *, Ivo Oliveira, Carlos Ribeiro, Alice Vilela, Anne S. Meyer, Berta Gonçalves
16:15	Effect of selected edible plant extract-based coatings on the shelf life of cavendish bananas	Temitayo Odetayo *, Lucky Sithole, Sabelo Shezi, Samson Tesfay, Nomali Z. Ngobese
16:30	Water vapour condensation periods on fruit surfaces during CA storage of apples	Ulrike Praeger *, Manfred Linke, Daniel A. Neuwald, Martin Geyer
16:45	Maintenance of 'Luiza' apple fruit quality after harvest as affected by storage technologies	Daniel Alexandre Neuwald *

E-POSTER FLASH PRESENTATIONS

Session P1 - New technologies and innovations in postharvest
Screen S23.1

Chair: Gustavo Teixeira, University of Idaho, USA

Amphitheatre Pocquet

14:00	Light and temperature can be used as post-harvest treatments to influence tomato quality	Aino Hämäläinen, Kari Jokinen, Titta Kotilainen, Pauliina Palonen *
14:05	Pre-harvest supplemental LED light can preserve tomato hardness and carotenoid content during post-harvest storage	Elisa Appolloni *, Ivan Paucek, Fiori Giovanni, Chiara Pastore, Antonio Cellini, Giuseppina Pennisi, Andrea Crepaldi, Francesco Spinelli, Francesco Orsini, Xavier Gabarrell, Giorgio Gianquinto
14:10	Feasibility of CIPC and LED lights in controlling sprout growth and development in potato with advanced physiological age	Vanessa Pedrosa, Maryelle Silva, Reginaldo Oliveira, Rogério Carvalho, Arthur Cecílio Filho, Gustavo Henrique de Teixeira *
14:15	Post-harvest ethanol treatment to increase anthocyanins content in red wine grapes	Margherita Modesti, Giorgio Manganelli, Brunella Ceccantoni, Serena Ferri, Fabio Mencarelli *, Andrea Bellincontro
14:20	Improving 'Honeycrisp' red skin coloration using postharvest ultraviolet irradiation treatments under different storage temperatures	Yixin Cai, Rohan Tikekar, Joseph Sullivan, Macarena Faruch *
14:25	Impact of preharvest modified photoperiod on postharvest physiology of lettuces	Florence Charles, Cedric Dresch *, Justine Gricourt, Huguette Sallanon, Vincent Truffault

Session P2 - Postharvest technologies

Screen S23.2

Chair: Christian Larrigaudiere, IRTA, Spain

Room 03

14:00	Effect of phytosqualane and ethoxiquin on superficial scald control in 'd'Anjou' pear	Jingi Yoo *, David R. Rudell, Carolina A. Torres
14:05	Impact of shocks and vibrations on the strawberry quality in the supply chain	Sophie Annibal *, Ellyn Dubecq, Jean-Baptiste Nolot
14:10	Minimum effective dose of peracetic acid against E. coli in cut lettuce wash water and its application in the fresh-cut industry	Martin Carlos Mottura *, Javier Parra, Eva Petri, Raquel Virto
14:15	Characterization of alternative oxidase activity in glyoxylic acid treated climacteric fruit	Evan Stowe *, Seanna Hewitt, Amit Dhingra

*Indicates presenting author

SYMPOSIUM 23

14:20	Effects of H2S postharvest treatment on fruit quality attributes of <i>Mespilus germanica</i> L. during shelf-life	Mahtab Moradi Digehsara *, Rahim Naghshband Hasani, Silvana Nicola
14:25	Storage temperature for 'Gala' apple fruit in long-term CA	Luiz Carlos Argenta, Felix Büchele *, Rachael Maree Wood, Cristiano Nunes Nesi, Daniel Neuwald
Session P3 - CA and MA Screen S23.3 Chair: Victor Escalona, University of Santiago, Chile		Room 04
14:00	Integrated effects of modified atmosphere packaging and gamma irradiation on shelf-life extension of Thai Mango cv. Nam Doc Mai Si Thong (<i>Mangifera Indica</i> Linn.)	Peerasak Chaiprasart *, Phongrapi Wichitkunan, Nopparat Intha, Nuchanat Phakdee, Suwimol Jetawattana, Hannarong Shamsub
14:05	Evaluation of controlled atmosphere storage regimes in WA-grown sweet cherries	Carolina A. Torres *, Oswaldo Gonzalez-Garcia, Keith van der Broek
14:10	Sugars and organic acids profile in 'Shalimar' apple as affect by storage conditions	Kartik Khera *, Felix Büchele, Fabio Rodrigo Thewes, Daniel Neuwald
14:15	Peroxidases activity of the bagged fruits of pear cv. Forest Beauty and cv. Dilafruz in the climatic condition of Tashkent region	Abdurashid Kayumov *, Jakhongir Gafurov Akhroljon oghli, Keisuke Katsura, Yoshiko Kawabata, Takuya Ban, Zukhriddin Ismoilov Sayitkulovich
14:20	Perforated MAP treatment differentially affects the fruit quality attributes and targeted major metabolites in bell pepper cultivars during shelf life	Jinwook Lee *, Hnin Phyu Lwin, Jinhee Lee
14:25	Sorbitol immersion and controlled atmosphere storage delay ripening of 'Palmer' mangoes	Gustavo Henrique de Teixeira *, Alex Sanches, Maryelle Silva, Maria Wong, Vanessa Pedrosa, Thiago Fernandes
14:30	Investigating the effects of novel postharvest treatments on the shelf-life of blackberries	Angelos Deltsidis *, Zilfina Rubio Ames, Camille Esmel McAvoy
14:35	Apple fruit of new cultivar 'Isadora' maintain harvest firmness throughout eight months in cold air storage	Daniel Alexandre Neuwald *
Session P4 - Postharvest Technologies (Cold) Screen S23.1 Chair: Felix Büchele, Competence Centre for Fruit Growing, Germany & Sangeeta Chopra, Division of Agricultural Engineering, India		Amphitheatre Pocquet
17:10	The application of novel portable vertically forced-air cooling facility for maintaining mushroom quality	Min-Chi Hsu *, pei-ru Lin, yu-shan Lin, Hsin-Der Shih, Yun-Sheng Lu, Chao-Chi Huang
17:15	Characteristics of 'Haegeum' gold and 'Hayward' green kiwifruit ripening during cold storage	Joong Gon Kim *, Eun Jin Lee
17:20	Influence of different storage condition on strawberry fruit nutritional quality	Rohullah Qaderi, Bruno Mezzetti, Franco Capocasa, Luca Mazzoni *
17:25	Red berries, a post-harvest life extended through the HDCOLD refrigeration technology	Valérie Lemetter, Kévin Vidot *, Benoît Duparc, Christophe Despierres
17:30	Postharvest quality and shelf-life of new mandarin-hybrids under cold storage conditions	Maria Concetta Strano *, Maria Allegra, Carmen Arlotta, Simona Fabroni, Concetta Licciardello, Solidea Mangiameli, Donata Pietro Paolo, Giuseppe Russo, Fabrizio Salonia, Nicolina Timpanaro, Marco Caruso
Session P5 - Ripening / MCP Screen S23.2 Chair: Cedric Dresch, Avignon University, France		Room 03
17:10	The influence of 1-Naphthaleneacetic acid on recovering 'Rocha' pear ripening after 1-MCP treatment	Cindy Dias *, Ana Cristina Rodrigues, Marta W. Vasconcelos, António Ferrante, Manuela Pintado

17:15	Factors affecting 1-MCP release from an alpha-cyclodextrin encapsulant dissolved in water	Randolph M. Beaudry *, Aline da Silva, Phil Engelgau, Nobuko Sugimoto
17:20	Influence of postharvest ethylene treatment on apricots	Séverine Gabioud Rebeaud *, Coralie Dayer, Pierre-Yves Cotter, Danilo Christen
S25 : INTERNATIONAL SYMPOSIUM ON MEDICINAL AND AROMATIC PLANTS: DOMESTICATION, BREEDING, CULTIVATION AND NEW PERSPECTIVES		
ORAL PRESENTATIONS		
Session O1 - Genetic resources, domestication, breeding Chair: Philippe Gallois, iteipmai, France		Amphitheatre Amande
10:30	Keynote: Aromatic and medicinal plants gene pool from the VIR collection: diversity and potential	Anna Artemyeva *
11:00	Genetic, phytochemical and agronomic characterization of wild hop ecotypes from Switzerland	Bastien Christ *, Claude-Alain Carron, Pascal Fuchsmann, Héléne Meng Yi, Eric Droz, Xavier Simonnet, Christoph Carlen
11:15	Nordic herbs – screening for factors affecting bioactive compounds and antioxidant/microbial activity	Mette Goul Thomsen *, Rune Slimestad, Amritha Johny, Christian Rene Karlsen, Michel Verheul, Jan Thomas Rosnes
11:30	Development of genetic and genomic resources for the breeding of lavender	Berline Fopa Fomeju *
11:45	Diversity of oil plant resources in the Central Highlands region and antimicrobial, anti-inflammatory activities of essential oils of <i>Magnolia citrata</i> Noot. & <i>Chalermglin</i> and <i>Hedyosmum orientale</i> Merr. & Chun	Ngoc Anh Luu-dam *
12:00	Domestication test: effects of the cultivation area on phytochemical quality of the leaves of two morphotypes of <i>Lippia multiflora</i> (Verbenaceae) cultivated in Côte d'Ivoire	Fako Kane *, Koffi Siméon BROU, Yves DJINA, Tia Jean GONNETY
12:15	Agroscope launches 'Carola', a new variety of sage (<i>Salvia officinalis</i> L.)	Xavier Simonnet *, Bastien Christ, Claude-Alain Carron, José Vouillamoz, Manuel Pramsohler, Christoph Carlen
Session O2 - Optimisation of soil cultivation Chair: Berline Fopa Fomeju, iteipmai, France		Amphitheatre Amande
15:30	Influence of planting density on photosynthetically absorbed radiation, biomass and artemisinin yield of the <i>Artemisia annua</i> L. cultivar Apollon	Christoph Carlen *, Bastien Christ, Xavier Simonnet
15:45	Agronomic and phytochemical characterization of <i>Trigonella caerulea</i> accessions	Manuel Pramsohler *, Alessia Castellan, Mayra Galarza Pérez, Serhat Sezai Çiçek
16:00	Effect of fruit maturation, umbel order, packaging containers and storage time on coriander (<i>Coriander sativum</i>) seeds from Alentejo (Portugal)	Orlanda Viamonte Póvoa *, Noémia Farinha, Mariana Paulo, Maria Churra
16:15	Total phenols and antioxidant potential of <i>Pelargonium reniforme</i> Curtis and <i>Pelargonium sidoides</i> DC under different watering frequencies and arbuscular mycorrhiza applications	Avela Sogoni *, Patricia Jean Ingarfield, Muhali Olaide Jimoh, Learnmore Kambizi, Charles Petrus Laubscher
16:30	MAP crops in dryland of Aragon-Spain: an alternative to farmers	Juliana Navarro Rocha *, David Gimeno, Azucena Gonzalez-Coloma
16:45	The contribution of co-cultivation of Mediterranean aromatic and medicinal plants to sustainable urban development	Adrian Asanica, Kristina Maknea *, Julia Nerantzia Tzortzi

*Indicates presenting author

E-POSTER FLASH PRESENTATIONS

Room 307

Session P1 - Optimisation of soil cultivation

Screen S25.1

Chair: Philippe Gallois, iteipmai, France

14:00	Effect of nitrogen rate on the nitrogen uptake and root yield of <i>Achyranthes bidentata</i>	Stephen Harper *, Binh Nguyen, Hien Phan Thuy, Dang Ha, Chu My, Duyen Nguyen, Phuong Pham
14:05	Plant nutrition determines fruit quality in maqui berry (<i>Aristotelia chilensis</i>)	Hermine Vogel *, Benita González, Mariana Moya, Ursula Doll
14:10	Photosynthetic screens in biomass production and essential oil yield in basil cultivars	Jose Magno Luz *, Mirian Nomura, Arie Blank, Carlos Ribeiro Rodrigues, Sérgio Macedo Silva, Roberta Camargo Oliveira, Mércia Freitas Alves, Daniela Apareci Nizio
14:15	Symbiotic effectiveness and molecular characterization of <i>Lessertia frutescens</i> nodulating rhizobia from the Cape Florist Region	Mokgadi Hlongwane *, Felix Dakora, Mustapha Mohammed, Ntebogeng Mokgalaka
14:20	Adaptation to cultivation of <i>Hypericum pubescens</i> Boiss., an endangered species in Alentejo (Portugal)	Orlanda Viamonte Póvoa, Noémia Farinha *, Mariana Paulo, Maria Churra
14:25	Comparative study of slicing methods for labdanum gum extraction from <i>Cistus ladanifer</i>	Pedro V. Mauri Ablanque, Celia Cano-Shaw *, José Plaza, Lorena Parra, Inés Bautista, Jaime Lloret, Sandra Sendra, Luis Saul Esteban, Irene Mediavilla
14:30	Response to water stress of wild lavenders: comparison between Lavandin, spike lavender and different chemotypes of true lavender	Sandrine Moja *, Yolande Despinasse, Frederic Jullien, Sophie Genest, Catherine Soler, Florence Gros, Thomas Michel, Elena Ormeno, Anne Bousquet-Mélou, Amélie Saunier, Catherine Fernandez, Sylvie Baudino, Florence Nicolè
14:35	Targeted water stress treatments on the antityrosinase of <i>Greyia radikoferi</i>	Malele Joseph *, Gehard Prinsloo, Riana Kleynhans, Babalwa Matsiliza-Mlathi
14:40	Influence of woven polypropylene groundcovers during winter on weed pressure, yield and quality of mint crops in the following season	Christoph Carlen *, Claude-Alain Carron, Xavier Simonnet, Bastien Christ
14:45	<i>Hypoxis hemerocallidea</i> seed germination: a journey of investigation	Riana Kleynhans *, Thokozile Mtshweni, Babalwa Matsiliza-Mlathi, Felicity Bierman
14:45	Physiological response of <i>Lavandula angustifolia</i> and <i>Lavandula x intermedia</i> under water stress conditions: the RECITAL project	Guillaume Frémondrière, Benjamin Lemaire, Lia Lamacque, Stéphane Herbette, Thierry Ameglio, Philippe Gallois*

Room 307

Session P2 - Genetic resources, domestication, breeding

Screen S25.1

Chair: Berline Fopa Fomeju, iteipmai, France

17:00	Bringing spontaneous plants to cultivation: issues and constraints for medicinal and aromatic plants	Roberto Marceddu, Alessandra Carruba *, Mauro Sarno
17:05	Morphological characterization of <i>Origanum vulgare</i> spp. <i>virens</i> from spontaneous populations in Alentejo (Portugal)	Orlanda Viamonte Póvoa, Mariana Paulo *, Noémia Farinha
17:10	Plant breeding of <i>Coriandrum sativum</i> L. from landraces collected in Alentejo (Portugal)	Noémia Farinha *, Maria Churra, Mariana Paulo, Elsa Lopes, Ana Barata, Violeta Lopes, Ana Cristina Figueiredo, Carmo Serrano, Orlanda Póvoa
17:15	Use vs. nature conservation on example of the naturally protected alpine plant Alpine valerian (<i>Valeriana celtica</i> subsp. <i>norica</i>)	Anna J. Keutgen *, Susanne Kabusch, Norbert Keutgen
17:20	Propagation of <i>Plectranthus aliciae</i> (madagascariensis)	Babalwa Matsiliza-Mlathi *, Tlou Moabelo, Riana Kleynhans

17:25	The use and availability of medicinal plants in a semi urban region amongst different cultural groups, Bronkhorstspuit, South Africa	Kara Lee *, Petunia Mashiane
17:30	Biochemical trait collections of VIR MAPs	Kurina Anastasia *, Solovyeva A.E.

WORKSHOPS

W02 : DIFFERENCES BETWEEN SCIENTIFIC AND EMPIRICAL RESEARCH, DOES IT MATTER AND HOW DOES IT AFFECT YOUR CAREER?

Moderator : Ted DeJong, UC Davis, USA

Open Garden Room

W05 : HOW CAN PLANT MODELLING BE A LEVERAGE FOR CROPPING SYSTEM IMPROVEMENT BY INTERATING PLANT PHYSIOLOGY AND SMART HORTICULTURE ?

Moderators : Francisco Domingo Molina Aiz, Almeria University, Spain, and Gerhard Buck-Sorlin, Institut Agro Angers, France

Atrium 2

W07 : DOES PLANT NUTRITION IN FRUIT PRODUCTION PLAY A ROLE IN FUTURE HUMAN HEALTH?

Moderator : Elmi Lötze, Stellenbosch University, South Africa

Mercure Room

W10: WHAT PEDAGOGICAL INNOVATIONS IN HORTICULTURE AND LANDSCAPE TRAINING

Moderators : Philippe Prevost, Agreenium, France ; Kathryn S Orvis, Purdue University, USA

Giffard - Screen 1

W12: HOW CAN WE REACH ENHANCED CLIMATE RESILIENCE CONSIDERING SUNBURN AND HEAT DAMAGE IN FRUIT AND VEGETABLES PRODUCTION?

Moderators : Manuela Zude-Sasse, ATB, Germany, and Brunella Morandi, UNIBO, Italy

Botanical Room

W16: WHAT ARE THE RELEVANT TOPICS THAT ORGANIC BANANA PRODUCERS WORLDWIDE WOULD LIKE THE BANANA RESEARCH COMMUNITY TO SOLVE?

Moderators : Luc de Lapeyre de Bellaire, Cirad, France ; Hans-Willem van der Waal, Kooplidenweg, The Netherlands

Atrium 3

BUSINESS MEETINGS

- BM01: JOINT ISHS BUSINESS MEETING DIVISIONS «PROTECTED CULTIVATION AND SOILLESS CULTURE» AND «PRECISION HORTICULTURE AND ENGINEERING» - *Amphitheatre jardin*
- AFRICAN REGION MEETING - *Cointreau Room*
- BM12: ISHS BUSINESS MEETING DIVISION DIVISION GENETIC RESOURCES AND BIOTECHNOLOGY - *Cabernet Room*
- BM13: ISHS BUSINESS MEETING DIVISION DIVISION VEGETABLES, ROOTS AND TUBERS - *Chenin Room*

NOTES

*Indicates presenting author

TUESDAY 16 AUGUST

08:30 - 10:00

PLENARY SESSION 2: AGROECOLOGY / SUSTAINABILITY OF PRODUCTION SYSTEMS

KEYNOTE SPEAKERS : Ameenah Gurib-Fakim and Pierre-Marie Aubert

S1: INTERNATIONAL SYMPOSIUM ON BREEDING AND EFFECTIVE USE OF BIOTECHNOLOGY AND MOLECULAR TOOLS IN HORTICULTURAL CROPS

Symposium supported by :



ORAL PRESENTATIONS

Session 03 - Breeding methodology

Amphitheatre Jardin - Screen 1

Chairs: Hélène Muranty, INRAe-IRHS, France and Craig Hardner, University of Queensland, Australia

10:30	Genomic selection in apple: lessons from preliminary studies	Hélène Muranty *, Michaela Jung, Morgane Roth, Xabi Cazenave, Andrea Patocchi, François Laurens, Charles-Eric Durel
10:45	A strategy for integrating multi-source historical phenotypic and genotypic datasets containing homonyms for global genomic prediction	Daniel Edge-Garza *, Kate Evans, Elizabeth Ross, Dorrie Main, Craig Hardner
11:00	Approaches to implement genomic selection in three Swiss apple breeding programs	Michaela Jung *, Simone Bühlmann-Schütz, Marius Hodel, Markus Kellerhals, Niklaus Bolliger, Moritz Köhle, Markus Kobelt, Hélène Muranty, Bruno Studer, Giovanni AL Broggin, Andrea Patocchi
11:15	Flexible linear models for complex data in horticultural tree breeding	Craig Hardner *, Joanne Defaveri
11:30	RNA-seq analysis of tomato genotypes resistant to bacterial spot (<i>Xanthomonas perforans</i>) race T4	Dilip Panthee *, Rui Shi
11:45	Phylogeny and evolutionary history for breeding and pre-breeding	Valéry Malecot *
12:00	A novel source of food - garden rose petals	Mirjana Vukosavljev *, Igor Stranjanac, Bas van Dongen, Roeland Vorrips, Mirjana Miric, Biljana Bozanic Tanjga, Paul Arens, Rene Smulders
12:15	Genetic control of tomato fruit quality : from QTL to GWAS and breeding	Juliette Bénéjam *, Estelle Bineau, Marie Brault, Jiantao Zhao, Yolande Carrretero, Esther Pelpoir, Karine Pellegrino, Frédérique Bitton, Mathilde Causse

Session 04 - Disease resistance

Amphitheatre Jardin - Screen 1

Chair: Richard Volz, Plant & Food Research, New Zealand

15:30	Keynote: Breeding strategies to counter plant pandemics	Richard Michelmore *
16:15	Apple cultivar breeding for multi-genic resistance to multiple diseases: The New Zealand experience	Richard Volz *, Natalie Proffit, Chrissy Marshall, Ben Orcheski, Elena Lopez-Girona, David Chagne, Vincent Bus
16:30	The trifoliolate orange (<i>Poncirus trifoliata</i>) genome and its repertoire of disease resistance and cold tolerance-related genes for genetic improvement of citrus	Zhanao Deng *, Ze Peng, Jessen V. Bredeson, Shengqiang Shu, Guohong Albert Wu, Nidhi Rawat, Dongliang Du, Soraj Parajuli, Qibin Yu, Qian You, Daniel Rokhsar, Fred Gmitter

16:45	Bunchstem and bunch structure of grape varieties and its implication for abiotic and biotic stress	Bruno Holzapfel *, Gerhard Rossouw, Bianca Bittau, Albane Meunier, Ian Dry
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E-POSTER FLASH PRESENTATIONS

Session P5 - Resistance and metabolites Screen S01.1

Amphitheatre Jardin - Screen 1

Chairs: Pritam Kalia, ICAR-IARI, India and Susan Schröpfer, Julius Kühn Institut, Germany

14:00	Preliminary evaluation of Bulgarian pepper landraces for resistance to four viruses	Gancho Pasev *, Vesela Radeva-Ivanova, Veronika Pashkoulova, Amol Nankar, Dimitrina Kostova
14:05	Induction of defense responses involving accumulation of active oxygen species in <i>Ampelopsis</i> species inoculated with <i>Rhizobium vitis</i>	Hae Keun Yun *, Hae In Lee, Zar Le Myint, Soon Young Ahn, Seung Heui Kim
14:10	Screening of <i>Capsicum annuum</i> L. genotypes for resistance against pepper yellow leaf curl Thailand virus (PepYLCThV) by viruliferous whitefly inoculation	Nattika Kumsee *, Montinee Teerarak, Wen Shi Tsai, Suchila Techawongstien, Tanyarat Tainta, Sanjeet Kumar, Nakarin Jeeartid, Orawan Chatchawankanphanich, Somsak Kramchote, Patcharaporn Suwor
14:15	Field screening of Cucurbita germplasm for resistance to multiple viruses (Poty and Gemini viruses)	Supornpun Srimat *, Hyungjun Noh, Narinder Dhillon
14:20	Evaluation of World Vegetable Cente's ridge gourd F1 hybrids at the begomovirus hotspot in India	Suyuporn Lertlam *, Kamal Yadav, Gopalkrishna Hegde, Narinder Dhillon
14:25	Pathogenesis-related 10 gene associated with the defense mechanisms of banana against <i>Ralstonia syzygii</i> subsp. <i>celebesensis</i> , the causal agent of Banana Blood Disease	Jariya Nitayaros *, Thanwanit Thanyasiriwat, Aphidech Sangdee, Ladawan Rattanapolsan, Praphat Kawicha
14:30	Elucidation of phloridzin biosynthesis in apple by tissue-specific expression of a candidate gene presumed to play a key role in phloridzin formation	Susan Schröpfer *, Christian Molitor, Christian Haselmair-Gosch, Henryk Flachowsky, Heidrun Halbwirth
14:35	Genetic background of partial resistance to European canker in the apple cultivar 'Santana'	Jonas Skytte af Sätra *, Larisa Garkava-Gustavsson
14:40	SNP marker development to identify QTL regions conferring bacterial wilt resistance in pepper	SeonJeong Joung *, Je Min Lee, Jundae Lee
14:45	Profiling of flavonoid compounds in tropical Indian varieties and their cross hybrids of carrot (<i>Daucus carota</i> L.)	Pritam Kalia, Selvakumar Raman*
14:50	Molecular characterization of flavonoid biosynthesis factors in two white-flowered cyclamens	Riho Mikami, Céline Pesteil *, Yusuke Akita

Session P6 - Specific traits Screen S01.2

Amphitheatre Jardin - Screen 2

Chairs: Seanna Hewitt, Washington State University, USA and Takanori Saito, Chiba University, Japan»

14:00	Molecular identification of the cytoplasm type and nuclear fertility restorer locus through marker-assisted breeding in short day Indian onion	Hira Singh *, Anil Khar, Masochon Zimik, Priyanka Verma
14:05	Regulation of the axillary bud fate of woodland strawberry	Javier Andrés *, Julie Caruana, Zhongchi Liu, Timo Hytönen, Elli Koskela
14:10	WOX4 and PXY regulate phase transition for pluripotent stem cell induction in Arabidopsis and carrot cells	Jong Eun Han *, So-Young Park, Hyunwoo Cho, Hyeona Hwang
14:15	Identification of QTLs for leaf yield component traits in Stevia	Prabhjot Kaur *, Keivan Bahmani, Ryan Warner
14:20	Carrot chloroplasts as a bioreactor for efficient avian influenza vaccine production	Pung-Ling Huang, Yi-Chen Su *, Yi-Yin Do

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 1

14:25	Transcriptomic analysis of ethylene-inducible pedicel-fruit abscission zone formation in sweet cherry (<i>Prunus avium</i> L.)	Seanna Hewitt *, Benjamin Kilian, Tyson Koepke, Jonathan Abarca, Matthew Whiting, Amit Dhingra
14:30	Retardation of endogenous ABA synthesis in the leaves dominates anthocyanin, sugar and aroma volatile concentrations in 'Kyoho' grape berries	Takanori Saito *, Hiroyuki Tomiyama, Katsuya Okawa, Hitoshi Ohara, Satoru Kondo
14:35	Molecular analysis of double mutants for flower fragrance and coloration in fragrant cyclamen	Yusuke Akita *, Riho Mikami, Parisa Loetratsami, Shiho Morimura
14:40	Exploring the association of early vigour with precocity in macadamia	Pragya Dhakal *, Bruce Topp, Mobashwer Alam
14:45	Changes in the distribution of cell wall hemicelluloses during fruit abscission in olive	María Carmen Gomez-Jimenez *, Ruben Parra
14:50	Role of phytosterol in olive flower opening and early fruit development	María Carmen Gomez-Jimenez *, Carla Inês, Jorge Corbacho, Beatriz Briegras, Maria-Carmen Camarero, Juana Labrador, Antonio Cordeiro
14:55	Progress towards early identification of factors important for scion-rootstock compatibility in Litchi sinensis in South Africa	Karin Hannweg *, Oscar Maphanga, Mark Penter, Ziyanda Shezi, Elliosha Hajari
Session P7 - Abiotic stress and climate change Screen S01.1 Chair: Esteban Soto, University of Bonn, Germany		Amphitheatre Jardin - Screen 1
17:10	Genetic and epigenetic regulation of dormancy in <i>Prunus avium</i> L.: Designing a conceptual model	Esteban Soto *, Eduardo Fernandez, Erica Fadon, Eike Luedeling
17:15	Characterization of floral bud and anther size with microspore development stage in chili pepper (<i>Capsicum annuum</i> L.)	Patcharaporn Suwor *, Thanyarat Jaingulueam, Kanjana Saetiew, Wen ShiTsai, Suchila Techawongstien, Tanyarat Tainta, Sanjeet Kumar, Nakarin Jeeartid, Orawan Chatchawankanphanich, Somsak Kramchote
17:20	Male gametophyte is a powerful screening tool for drought and heat tolerance in garden bean (<i>Phaseolus vulgaris</i> L.)	Svetla Sofkova-Bobcheva *, Yanina Arnaudova, Boyan Arnaudov
17:25	Creating in vitro lilies with potential tolerance to abiotic stress	Thi Thu Huong Bui *, Le Tran Binh, Dong Huy Gioi
17:30	Study on biological performance and genetic characteristics of cold resistance in pear	Maojun Zhang *, Qiang Wang, Mingyan Lu, Chunhao Wu, Ying Zhao, Xingkai Yan, Guojie Xing
Session P8 - Traits and markers Screen S01.2 Chair: Carlos Sanz, Instituto de la Grasa - CSIC, Spain		Amphitheatre Jardin - Screen 2
17:10	Insights into the use of phenylalanine ammonia-lyase as a marker for the selection of olive cultivars with improved virgin olive oil functionality	Pilar Luaces, Emna Mahjoubi, Mar Pascual, Ana G. Pérez, Carlos Sanz *
17:15	QTL analysis with SNP-based HRM markers and identification of candidate genes controlling α -glucosidase inhibitory activity in pepper (<i>Capsicum annuum</i> L.)	Doie Park *, Jongbin Park, Jundae Lee
17:20	Analysis of EIN2/EIN3 RNAi-mediated dual gene silencing in <i>Oncidesa Gower Ramsey</i>	Zhi Xing Lau, Yi-Yin Do, Pung-Ling Huang *

S2: INTERNATIONAL SYMPOSIUM ON CONSERVATION AND SUSTAINABLE USE OF HORTICULTURAL GENETIC RESOURCES

ORAL PRESENTATIONS

Session 01 - Partnerships and strategies for promoting sustainable horticultural production to increase impact
Chair: Arshiya Noorani, Food and Agriculture Organization, Italy Grand Angle Room A - Screen1

10:30	Keynote: forgotten foods: A manifesto for the future of the food system?	Sayed Azam-Ali *
11:00	A global workshop to advance the implementation of the global conservation strategy for coffee genetic resources	Sarada Krishnan *, Paula Bramel, Tracie Matsumoto, Luis Salazar, Kraig Kraft
11:15	Fruit trees diversity in the Near East, a challenged legacy for conservation actions.	Lamis Chalak *
11:30	Harmorescoll: setting up an EU system for harmonized collections of reference isolates, controls and differentials to facilitate disease resistance testing	Nicolas Denance *, Ana Patricia Fernandez-Getino, Valérie Grimault, Raoul Haegens, Sophie Perrot, Dominique Rousseau, Bert Scholte, Loredana Sigill, Diederik Smilde
11:45	Conservation and sustainable use of tropical fruit diversity for improved livelihood, nutrition security and ecosystem services	Jai Rana *, Surinder Malik, Sudhir Ahlawat, Prem Mathur
12:00	Conservation and sanitation of tropical genetic resources: a challenge for food security and germplasm exchange	Marie Umber *
12:15	Conserving Ireland's indigenous apple varieties for genetic diversity, cultural heritage and future research	Caroline Elliott-Kingston *, Gwyneth MacMaster
12:30	Exploring european carrot diversity through public-private partnerships in EVA Carrot	Emmanuel Geoffriau *, Sandra Goritschnig, Cristina Mallor, Paolo Pagan *, Arnaud Thabuis, Juliette Chevalier, Annette Hägnfelt, Nicoletta Bertolin, Sylvia Salgon, Micha Groenewegen, Aurélie Ingremeau, Paul Heuvelmans, Thomas Nothnagel, Violeta Lopes, Charlotte Allender

Session 02 - On-farm conservation and management of horticultural genetic resources
Chair: Raphaël Morillon, CIRAD, France Grand Angle Room A - Screen1

15:30	<i>Malus doumeri</i> : The tropical apple species in Vietnam	Thi Thu Hoai Tran *, Gayle Volk, Kien Nguyen Van, Yen Dinh Bach, Thuy Nguyen Thi Bich
15:45	Characterization of the semi-natural carob germplasm variability in Lebanon studying EST-SSR markers	Mohamad Ali El Chami *, Francisco J. Ruiz-Gómez, Guillermo Palacios-Rodriguez, Rafael Navarro-Cerrillo, Abdel Kader El Hajj, Lamis Chalak
16:00	Conservative selection of a population variety under various agroecological conditions, zucchini as a model species	Laura Gautier *, Louis-Marie Broucqsault, Rémi Kahane, Lise Malicet-Chebbah, Jacques David, Cyriaque Crosnier-Mangeat
16:15	Determination of the morphological characteristics of some local tomato genotypes selected from mediterranean basin	Tunç Durdu *, Yüksel Tüzel
16:30	Feasibility study on development of novel leafy vegetable varieties suitable for plant factory production via utilization of genetic resources in genebank	Masayoshi Shigyo *, Tri Manh Le, Kazuhiko Harada, Kenta Arai, Yuichi Ishizaki, Hitoshi Aoki, Chris Kik, Robbert van Treuren, Theo van Hintum
16:45	Ampelographic evaluation of autochthonous grapevine germplasm in different areas of the Lazio region, Italy	Maria Palombi *, Roberto Nuti, Massimo Morassut, Noemi Bevilacqua, M. Cecilia Serra

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 2

E-POSTER FLASH PRESENTATIONS

Session P1 - Partnerships and strategies for promoting sustainable horticultural production to increase impact
Screen S02.1

Chair: Lamis Chalak, The Lebanese University, Lebanon

Grand Angle Room A - Screen1

17:10	The HARNESSTOM repository of promising tomato genotypes selected for direct cultivation by farmers	Joan Casals, Andrea Mazzucato, Ivanka Tringovska, Amalia Barone, Maria R. Ercolano, Salvador Soler, Stanislava Grozeva, Daniela Ganeva, Gancho Pasev, Roser Romero del Castillo, Maurizio E. Picarella, Clara Pons, María J. Asins, María J. Díez, Jaime Prohens *, Antonio Granell
17:15	BrACySol BRC : a center of valuable genetic resources to address major issues faced by potato and oilseed rape crops	Florence Esnault *, Vincent Richer, Marie Bousseau, Marie-Pierre Cann, Jean-Eric Chauvin, Marie-Ange Dantec, Régine Delourme, Stéphane Doré, Pascal Glory, Marie-Claire Kerlan, Marie-Paule Kermarrec, Anne Laperche, Lise-Anna Le Ven, Maryse Lodé-Taburel, Maria Manzanares-Dauleux, Sophie Paillard, Roland Pellé, Jocelyne Porhel, Mathieu Rousseau-Gueutin, Catherine Souchet, Sylvain Théréné, Anne-Marie Chèvre
17:20	Coordination of genebank activities between different national collections of berry genetic resources in Europe in the frame of ECPGR	Monika Höfer *
17:25	The Biological Resources Centre «Tropical Plants» A tool for Research and Agriculture in the Caribbean	Nilda Paulo-de-la-Reberdière *, Michel Roux-Cuvelier

Session P2 - On-farm conservation and management of horticultural genetic resources
Screen S02.2

Chair: Antonietta Palombi, Research Centre of Viticulture and Enology, Italy

Grand Angle Room A - Screen 2

17:10	Morphological and genetic evaluation of local germplasm: the case study of Sicilian apples	Giovanni Gugliuzza *, Maria Carola Fiore
17:15	In situ evaluation of sour cherry (<i>Prunus cerasus</i> L.) Landraces Originated of the West Serbia Region	Aleksandra Koricanac *, Sanja Radievi, Slaana Mari, Ivana Glii, Neboja Mioevi, Olga Mitrovi
17:20	Research regarding restoration of the main identity traits of old Romanian autumn cabbage variety, Licurisca	Geanina Negosanu *, Bianca Musat, Camelia Bratu, Geanina Negosanu, Matilda Popescu, Dorel Hoza
17:25	Possibilities for preserving some old local grapevine varieties threatened from extinction in Bulgaria	Marieta Nesheva *, Marko Mihaylov, Svetoslav Malchev

S4: INTERNATIONAL SYMPOSIUM ON IN VITRO TECHNOLOGY AND MICROPROPAGATED PLANTS

ORAL PRESENTATIONS

Session O2 - In vitro breeding

Chair: Jeffrey W. Adelberg, Clemson University, USA

Atrium 3 - Screen 1

10:30	Somaclonal variation and induced mutagenesis in several grapevine cultivars - -	Luca Capriotti *, Silvia Sabbadini, Cecilia Limer, Oriano Navacchi, Bruno Mezzetti
10:45	Optimizing embryo rescue for coconuts; an essential step for clonal propagation	Hannes Wilms *, Kevin Longin, Bart Panis

Session O3 - Micropropagation and microorganisms
Chair: Jeffrey W. Adelberg, Clemson University, USA

Atrium 3 - Screen 1

11:00	Disinfestation methods and media components affect tissue culture of the geophytic species, <i>Schoenocaulon officinale</i> (Melianthiaceae)	Neil O. Anderson *, Rajmund Eperjesi, Albert Radloff, Robert Suranyi, Steven Gullickson
11:15	Methods of asepsis for in vitro establishment and germination of <i>Eugenia uniflora</i> seeds	John L Griffis *, Malcolm M. Manners
11:30	Optimized protocols for in vitro rooting and hardening of the multipurpose tree <i>Melia volkensii</i>	Titus Magomere *

Session O4 - Molecular insights to understand micropropagation
Chair: Jorge Canhoto, University of Coimbra, Portugal

Atrium 3 - Screen 1

11:45	Studies of adventitious rooting in a tobacco mutant (rac) impaired in rooting	Margareta Welandar *, Li-Hua Zhu
12:00	Influence of flavonoids and phenolic acids in the in vitro propagation of tamarillo	André Caeiro *, Jorge Canhoto, Sandra Correia
12:15	Regulatory role of ncRNAs networks in the expression and maintenance of the embryogenic competence in <i>Solanum betaceum</i> Cav. <i>Calli</i>	Daniela Cordeiro *, Jorge Canhoto, Sandra Correia

Session O5 - Conservation and long-term storage
Chair: Karel Doležal, Palacký University Olomouc, Czech Republic

Atrium 3 - Screen 1

15:30	Strategies for the conservation by biotechnological approaches of <i>Abies nebrodensis</i> , a relict conifer of Sicily	Waed Tarraf *, Tolga Izgu, Carla Benelli, Maurizio Lambardi, Maria Antonietti Germanà, Nourhen Jouini
15:45	Development of new protocols for production, conservation and long-term storage of chestnut rootstocks (<i>Castanea sativa</i> and hybrid)	Justine Perrotte *, Aurélie Petit, Mathieu Mouravy

Session O6 - Scaling up micropropagation
Chair: John L Griffis, Florida Gulf Coast University, USA

Atrium 3 - Screen 1

16:00	Tamarillo cell suspension-based bioreactors – optimization of a novel plant-based system for elicited enzymatic production	Bruno Casimiro *, Inês Lopes, Mariana Correia, Jorge Canhoto, Luisa F Rojas, Paula Veríssimo, Sandra Correia
16:15	Optimization of fed-batch culture for polyphenol production from <i>Theobroma cacao</i> cell culture	María Isabel Restrepo Muriel *, Lucía Atehortúa, Luisa Fernanda Rojas Hoyos
16:30	High throughput in vitro production of somatic embryos with innovative cryo cell banking system	Weiming Wang *,
16:45	Optimization of in vitro cultivation of <i>Cattleya nobilior</i> Rchb.f in a temporary immersion bioreactor EMBRAPA/C4 Cientifica	Mônica Rosa Bertão *, Vinícius Manoel Bertão, Camila Almeida Pimentel, Milena Cristina Moraes, Larissa Frigui Moreira, Carlos Alberto de Lima Conte, Darío Abel Palmieri

E-POSTER FLASH PRESENTATIONS

Session P4 - Molecular insights to understand micropropagation
Screen S04.1

Chair: Stefaan Werbrouck, Ghent University, Belgium

Atrium 3 - Screen 1

14:00	Understanding wound-responsive mechanisms underlying micrografting success in almond (<i>Prunus dulcis</i> (Mill.) D. A. Webb)	Ana Pedrosa *, Tércia Lopes, Sandra Caeiro, Liliana Marum, Jorge Canhoto, Sandra Correia
14:05	Propagation efficacy and development of bioactive compounds in callus of <i>Daucus carota</i> L. in vitro cultures with respect to used cultivar, fertilization and phytohormones	Anna J. Keutgen *, Magdalena Tomaszewska-Sowa, Aleksander Bomberski, Norbert Keutgen

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 4

14:10	Monitoring adventitious shoot meristem initiation on arabidopsis root explants by means of stem cell reporters	Elnara Sadigova *, Stefaan Werbrouck
14:15	Regeneration of plants from embryogenic callus-derived protoplasts and its comparative transcript profiling by RNA-seq in <i>Angelica gigas</i>	Hansol Lee *, So-Young Park, Jong-Eun Han, Suk-Hyun Kwon
14:20	Ethylene concentration is influenced by polyamine addition during somatic organogenesis in lemon (<i>Citrus limon</i>)	Marga Pérez Jiménez *, Virginia Celadrán-Sánchez, Fernando Córdoba, Olaya Pérez-Tornero
Session P5 - Conservation and long-term storage Screen S04.1 Chair: Bruno Casimiro, University of Coimbra, Portugal		Atrium 3 - Screen 1
14:30	Study of the regeneration problem of cryopreserved cassava meristems	Hannes Wilms *, Natalia Fanega Sleziak, Gwendal Plumier, Bart Panis
14:35	Anatomical changes and cytogenetic stability in bird of paradise plants after zygotic embryo cryopreservation by desiccation method	Patrícia Paiva *, Junia Rafael M. Figueiredo, Diogo Pedrosa Corrêa da Silva, Renato Paiva, Raquel Mesquita, Rafaela Ribeiro Souza, Michele Valquíria dos Reis
14:40	Approaches applied to induce regeneration, via somatic embryogenesis, in the peach rootstock GF677 (<i>P. persica</i> x <i>P. amygdalus</i>) and in different peach cultivars using leaves and anthers as starting explants	Angela Ricci *, Bruno Mezzetti, Oriano Navacchi, Lorenzo Burgos, Silvia Sabbadini
14:45	Improvement in micropropagation and cryopreservation of <i>Musa</i>	Maria M. Jenderek *, Dianne Skogerboe
Session P6 - Scaling up micropropagation Screen S04.2 Chair: Sandra Correia & Daniela Cordiero, University of Coimbra, Portugal		Atrium 3 - Screen 2
14:00	Comparison of in vitro multiplication rates of <i>Cordyline fruticosa</i> 'Purple' and <i>Aronia melanocarpa</i> 'Viking' grown in either a temporary immersion system bioreactor or on conventional solid medium	John L. Griffis *, Izzet Gün, Emrah Zeybekoglu, Mustafa Ercan Özzambak
14:05	Improved micropropagation of <i>Prunus</i> spp. rootstocks using temporary immersion systems	Tércia Lopes *, Mariana Correia, Ana Pedrosa, Elsa Baltazar, Jorge Canhoto, Sandra Correia
14:10	Effects of pyrabactin on the growth of micropropagated <i>Melia volkensii</i> plants	Titus Magomere *, Constantin Dushimimana, Margaret Hutchinson, George Chemining'wa, Guy Smagghe, Stefaan Werbrouck
14:15	Somatic embryogenesis in cocoa (<i>Theobroma cacao</i> , L.) and mulberry (<i>Morus alba</i> , L.)	Juan José Silva Pupo *, Yanexi Fonseca Carrasco, Jorge Pérez Pérez, ngel Espinosa Reyes, Stefaan Werbrouck
14:20	In-vitro regeneration of immature zygotic embryos of a dryland East African tree <i>Melia volkensii</i> for accelerated breeding and improvement	Titus Magomere *, Priscilla Kimani, Lydia Wamalwa, Kahiu Ngugi, Joseph Machua, Jackson Mulatya, Stefaan Werbrouck
14:25	Light solutions for <i>Cannabis sativa</i> micropropagation	Verónica Codesido Sampedro *, Nicolás García Caparrós, José Luis Valencia Castellano, Antonio Sancho
14:30	Efficient airlift bioreactor for high-throughput multiplication of embryogenic cell suspension in banana (<i>Musa</i> spp.)	Subbaraya Uma Binit *, Karthic Raju, Kalpana Sathiamoorthy, Backiyarani Suthanthiram, Saraswathi Marimuthu Somasundaram
14:35	Effect of oxygen transfer rate in 7.5 L-airlift and stirred tank bioreactors to the culture of <i>Theobroma cacao</i> cells	Luisa Fernanda Rojas *

S6 INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES AND PRODUCTION STRATEGIES FOR SUSTAINABLE CONTROLLED ENVIRONMENT HORTICULTURE

Symposium supported by :



ORAL PRESENTATIONS

Session 02 - Light use efficiency

Auditorium - Screen 1

Chair: Leo F. M. Marcelis, Wageningen University & Research, The Netherlands

10:30	Light use efficiency of various greenhouse systems in an arid environment.	Ilias Tsafaras, Jouke Campen, Feije de Zwart, Wim Voogt, Hessel van der Heide, Abdulaziz Al Harbi *, Khalid Al Assaf, Muien Qaryouti, Mohamed Ewis Abdelaziz
10:45	Novel supplementary lighting protocols for optimising controlled environment horticulture.	Margaret Ahmad *, Blanche Aguida, Laurence Bourgeois-Racetté
11:00	Estimation of supplemental light requirements of greenhouse crops based on canopy light interception using 3D plant models and ray-tracing simulation.	Inha Hwang *, Dongpil Kim, Seungri Yoon, Jin Hyun Kim, Jung Eek Son
11:15	Optimizing supplemental lighting control in greenhouses based on plant physiology, variable electricity price, and sunlight prediction.	Shirin Afzali, Sahand Mosharafian, Marc Van Iersel *, Javad Mohammadpour Velni
11:30	Artificial light quality changes colonization ability of biocontrol agents under greenhouse conditions.	Maria Hellström *, Maria Karlsson, Isabella Kleman, Beatrix Alsanius
11:45	Improving energy efficiency of ornamental plant cultivation in winter and spring.	Kees Weerheim *, Myrthe Mahakena
12:00	Effect of different light intensities on <i>Lactuca sativa</i> growth in indoor conditions.	Andres Mayorga-Gomez *, Marc van Iersel
12:15	Optimizing LED lighting using chlorophyll fluorescence based on Biofeedback system	Suyun Nam *, Marc W. van Iersel

Session 03 - LED lighting

Auditorium - Screen 1

Chair: Erik Runkle, Michigan State University, USA

15:30	Intra-canopy supplemental illumination during daytime or edge-of-daytime improves fruit set of bell pepper at passive conditions in the winter.	Itzhak Kamara *, Vivekanand Tiwari, Yair Many, Kira Ratner, Victor Lukyanov, Ziva Gilad, Itzhak Esquira, Dana Charuvi
15:45	Effect of inter-lighting using red + blue LEDs with additional far-red LED on fruit quality and carotenoid content of red- and yellow-colored sweet peppers.	Dongpil Kim *, Jung Eek Son
16:00	LED toplight and intercanopy light in greenhouse tomato as compared to HPS lighting.	Leo F. M. Marcelis *, Tijmen Kerstens, Britt Besemer, Ingeborg Schouten, Ricky Teng, Gerjan Puttenstein, Hans Spalholz, Ep Heuvelink
16:15	Dynamic continuous LED lighting can reduce light fixture and energy costs and improve energy efficiency in greenhouse tomato production.	Xiuming Hao *, Jason Ianoué, Celeste Little, Jingming Zheng
16:30	Hemp varieties performance under supplementary lighting using LED and HID lamps in greenhouse cultivation.	Antonio Ferrante *, Giacomo Cocetta, Francesco Florio, Davide Guffanti, Gabriele Cola

*Indicates presenting author

SYMPOSIUM 6

16:45	Continuous and dynamic illumination induce divergent water transport dynamics, growth and development in sweet pepper (<i>Capsicum annuum</i> L.).	Simon Lauwers *, Elise Tardy, Jonas Coussement, Kathy Steppe
E-POSTER FLASH PRESENTATIONS		
<i>Session P7 - Modulation of yield and quality of horticultural crops as affected by supplementary light in controlled environments</i> Screen S06.1 Chair: Ep Heuvelink, Wageningen University and Research, The Netherlands		
Auditorium - Screen 1		
14:00	Supplemental LED lightning in high-wire system cultivation in cucumber: What is the benefit of inter-lighting on production?	Landry Rossedeutsch *, Adrien Mimault, Denis Loda, Irène Gerondeau
14:05	A virtual tomato plant for optimising assimilation light in greenhouse cultivation	Jonas Coussement *, Rune Vanbeylen, Kathy Steppe
14:10	Morphological effects of supplemental Red, Blue and Far Red LED lighting on greenhouse tomato seedlings production	Elisa Appolloni *, Andrea Strano, Ivan Paucek, Andrea Crepaldi, Giuseppina Pennisi, Francesco Orsini, Xavier Gabarrell, Giorgio Gianquinto
14:15	Comparison of plasma vs. HPS lamp on early stage development of eggplant and tomato plant	Sandra Anselmo *, Daniel Tran, Marie Biselx, Gil Carron, Robert Farinet, Cédric Camps
14:20	Analysis of light interception, photosynthesis, and growth of greenhouse sweet peppers according to number of trained stems and supplemental lighting using 3D plant models and ray-tracing simulation	Inha Hwang *, Dongpil Kim, Seungri Yoon, Jin Hyun Kim, Jung Eek Son
14:25	Dynamic 24h light using blue and far-red at night can increase internode length and sustain yield in greenhouse pepper production	Jason Lanoue *, Celeste Little, Xiuming Hao
14:30	The effect of four different LED spectra on the growth and development of a Cucumber greenhouse crop	Sebastian Olschowski *, Jonas De Win, David Hawley
14:35	The effect of far-red light on white or pink supplemental LED lighting on growth and development of June-bearing strawberries	Theoharis Ouzounis *, Lianne Helmus-Schuddebeurs, Stijn Jochems, Caroline Labrie, David Hawley
14:40	The effect of four different top light LED spectra on growth and development of greenhouse-grown 'Merlice' and 'Brioso' tomato cultivars	Theoharis Ouzounis *, David Hawley
14:45	The Energy Requirement for Supplemental Lighting in Greenhouse Leafy Greens Production can be Reduced by Considering 'Excess' Sunlight from the Previous Day	Theekshana Jayalath *, Marc van Iersel
14:50	Long Photoperiod, Low Intensity Dynamic Lighting for Sustainable Year-Round Greenhouse Vegetable Production	Xiuming Hao *, Jason Lanoue, Celeste Little, Jingming Zheng, Bernard Grodzinski
14:55	Toplight versus partial intercanopy light with white LEDs in greenhouse cucumber and tomato at two light intensities	Ep Heuvelink *, Tijmen Kerstens, Theodoros Giannas, David Hawley, João Ludovico, Sebastian Olschowski, Theoharis Ouzounis, Ingeborg Schouten, Leo F.M. Marcelis
15:00	Strategies towards optimization of continuous lighting in tomatoes.	Jason Lanoue *, Yinzi Li, Celeste Little, Jingming Zheng, Sarah St. Louis, Aiming Wang, Xiuming Hao

Session P8 - Advances in soilless culture fertilization Screen S06.2 Chair Martine Dorais, Université Laval, Canada

Auditorium - Screen 2

14:00	Low substrate moisture level may increase the nitrate content of arugula leaves (<i>Eruca sativa</i>)	Kiram Lee *, Seong Kwang An, Jongyun Kim
14:05	Soilless growing of strawberry as influenced by two fertilizer recipes	Marco A. Bustamante *, MICHIKO TAKAGAKI, LU NA, Alejandro Jose Dávila
14:10	Habanero pepper production in soilless media with two different nutrient solutions	Marco A. Bustamante *, Michiko Takagaki, Lu Na, Alejandro Jose Bustamante Dávila
14:15	Pyroligneous acid and compost combined can improve strawberry productivity	Lord Abbey *, Tim Morcom, Lokanadha Rao Gunupuru
14:20	Estimation of plant availability of different phosphates by the CaCl ₂ /DTPA and CAL method	Bettina Babel, Carina Lau, Nolwen Levaillant, Felix Prell, Daniel Hauck, Dieter Lohr *
14:25	Passive pH management: MES buffer molarity effects on hydroponically grown lettuce	Gediminas Kudirka *, Akvile Virsile, Lina Rageliene
14:30	Salinity effects on yield and nutrient uptake in <i>Cannabis sativa</i>	Rob Baas *, Diek Wijnen
14:35	Dynamic of the nutrient uptake by drug-type <i>Cannabis sativa</i> L. under different N concentrations during the flowering phase of plants cultivated in vertical aeroponic growing system	Martine Dorais *, Camille Leblanc, Thi Thuy An Nguyen, Annie Brégard
14:40	Response of drug-type <i>Cannabis sativa</i> L. to P and K concentrations for plants grown in a deep-water system	Camille Leblanc, Thi Thuy An Nguyen, Annie Brégard, Martine Dorais *
14:45	Coping strategies against plastic mulching: the use of ecological hydromulches in horticultural crops	Miriam Romero-Muñoz, Amparo Galvez-Lopez, Alfonso A Albacete, Francisco M del Amor, Mari Carmen Piñero, Josefa López-Marín *
14:50	The use of new photoselective cover materials induces contrasting developmental and reproductive responses in tomato cherry plants	Amparo Gálvez López, Miriam Romero, Alfonso A Albacete, Francisco M del Amor, Mari Carmen Piñero, Josefa López-Marín *
14:55	Appropriate nutrient solution to optimize growth and glucosinolate content when Cultivating simultaneously several leafy vegetables at hydroponic systems	SunWoo Kim *, Younghwi Ahn, Seungwon Noh, Jongseok Park

Session P9 - Innovative tools and technologies in controlled environments - stress detection Screen S06.3 Chair: Gerhard Buck-Sorlin, L'Institut Agro, France

Auditorium - Screen 3

14:00	Early crop stress detection using soft-sensors	Laura Cammarisano, Mehdi Bisbis *, Leo Marcelis, Ep Heuvelink, Oliver Körner
14:05	Normalized difference vegetation imaging for detection of nutrient deficiencies in petunia	Kahlin Wacker *, Marc van Iersel
14:10	Implementation of Artificial Neural Networks for tomato crop stress detection in greenhouses	Nikolaos Katsoulas *, Angeliki Elvanidi
14:15	Low-Cost automated phenotyping of canopy size and pigmentation using multispectral imaging	Changhyeon Kim *, Benjamin Sidore, Kahlin Wacker, Marc van Iersel
14:20	Linear mixed model analysis of NDVI-based canopy coverage, extracted from sequential UAV multispectral imagery of an open field tomato irrigation experiment	Eddie Schrevens *, Delvis Garcia Garcia, Diego Grados Bedoya, Ximena Reynafarje

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 6

Session P10 - Session - Physiology to improve yield and quality, innovative tools and technologies and management
Screen S06.3

Chair: Gerhard Buck-Sorlin, L'Institut Agro, France

Auditorium - Screen 3

14:25 Water transports and plant developments in tomato with adventitious roots
Toshihiro Umebayashi *, Yasuhiro Suzuki, Hiroomi Kanda, Hiroyuki Imanishi, Naoko Kitamoto, Yasunori Yoshida

14:30 Microstructure of tissues reveals oxygen diffusion pathways in ripening tomato fruit
Hui Xiao *, Pieter Verboven, Bart Nicolai

Session P11 - Sensor applications, sensor and model for climate management in controlled environments
Screen S06.1

Chair: Ep Heuvelink, Wageningen University and Research, The Netherlands

Auditorium - Screen 1

17:10 Use of augmented natural ventilation and 'double roof' with photoconversion films to improve tomato photosynthesis tomato crop inside greenhouses
Francisco Domingo Molina Aiz *, Séverine Lemarie, Kristof Proost, Frederic Peilleron, Alejandro López Martínez, Diego Luis Valera Martínez, M. Angeles Moreno Teruel, Mireille N. Honore

17:15 Photosynthetic performance of strawberry acclimated to the solar spectrum modified by spectrum conversion film in greenhouses
Jun Hyeun Kang*, Hyo In Yoon, Jung Eek Son

17:20 Effects of blue Light Cascade® films on 'Ventero' tomato under controlled environmental conditions
Vincent Guérin *, Eulalie Jamet, Séverine Lemarié, Alexandre Matthieu, Gildas Guignard, Vicky Labbe, Lisa Gatard, Laurent Crespel, Sabine Demotes-Mainard, José Legourrierec, Jessica Bertheloot, Rémi Gardet, Claude Le bigot, Kristof Proost, Frédéric Peilleron, Soulaïman Sakr

17:25 The innovative LIGHT CASCADE® sunlight photoconversion greenhouse films enhance horticultural crops production in Europe
Frederic Peilleron *, Severine Lemarie, Kristof Proost, Anne Sophie Quellec, Simon Cordier, Gildas Guignard, Vincent Guérin, Soulaïman Sakr

Session P12 - Speciality crops and innovations in controlled environments
Screen S06.2

Chair: Martine Dorais, Université Laval, Canada

Auditorium - Screen 2

17:10 Microscale vegetable production through microgreens: genotype, spectral bandwidth and substrate implications for growth and quality
Youssef Rouphael *, Marios C. Kyriacou, Christophe El-Nakhel, Stefania De Pascale

17:15 Modeling the phenological development of Chinese Cabbage (*Brassica campestris* L.) for predicting bolting time in spring season
Minji Shin *

17:20 Use of air-based mechanical stimulation for height control in plant production of *Ocimum basilicum*
Fabian Heesch *, Marc-André Sparke, Ute Ruttensperger

S7: II INTERNATIONAL SYMPOSIUM ON GREENER CITIES: IMPROVING ECOSYSTEM SERVICES IN A CLIMATE-CHANGING WORLD (GREENCITIES2022)

ORAL PRESENTATIONS

Session O1 - Interest, innovation and difficulties of vegetation system in green infrastructures
Chair: Francine Lorea Cuquel, Universidade Federal do Paraná, Brazil

Cointreau Room - Screen 1

10:30 Keynote: Building integrated vegetation systems - another way for greening densely built cities
Luis Pérez Urrestarazu *

11:15 Monitoring environmental impacts of an indoor vertical green-living wall (VGW) system
Yehuda Yungstein *, David Helman

11:30 Cool down with vertical plants?
Maren Stollberg *, Alexander von Birgelen

11:45 Growth and survival capacity of native plant species in vegetated roofs
Lucia Bortolini *, Giampaolo Zanin

12:00 Improving the water quality of a pond coupled with a vertical garden. Case Study: Ornamental symbiosis
Víctor M. Fernández Cabanás *, Gina P. Suárez Cáceres, Rafael Fernández Cañero, Sabina Rossini Oliva, Leonardo Martínez Millán, Luis Pérez Urrestarazu

12:15 Create and manage green cities using crassulacean acid metabolism (CAM) ornamental plants production in rooftop greenhouse
Yoon Jin Kim *, Ah Ram Cho, Sang Min Lee

Session O2 - How to enhance Greener Cities?

Chair: Lucia Bortolini, University of Padova, Italy

Cointreau Room - Screen 1

15:30 Keynote: The FAO Green Cities Initiative: building more resilient and inclusive cities
Simone Borelli *

16:15 Native lomas species of Peru as potential plants for urban green in Lima
Sofia Jesus Flores Vivar *, Koenraad Van Meerbeek, Carmen Van Mechelen, Jose Palacios

16:30 Artificial communities of plants as guides for design of urban areas of central México
Edith Salomé *, Elisa Olivares-Esquivel

16:45 Popular preference of naturalistic planting for urban space in Taiwan
Cheng Ching-Teng *, Chun-Yen Chang

17:00 Accessibility, visibility and connectivity between urbanites and edible landscape in the Persian gardens
Majid Amanibeni *, Mohammad Reza Khalilnezhda, Zhongwei Shen

E-POSTER FLASH PRESENTATIONS

Session P1 - Interest, innovation and difficulties of vegetation system in green infrastructures
Screen S07.1

Chair: Edith Salomé-Castañeda, Universidad Popular Autónoma del Estado de Puebla, Mexico

Cointreau Room - Screen 1

14:00 Urban greening to improve thermal comfort of inhabitants: a methodology to select high-stake locations and to evaluate benefits of planting scenarios
Sophie Herpin *, Emma Douguet, Véronique Beaujouan

14:05 How are green spaces effective in urban heat island mitigation? A case study in North-eastern Italy
Lucia Bortolini *, Paolo Semenzato, Valentina Brasola

14:10 Urban Green Shapes - Impact on environmental quality: a case study in Southern Italy
Alba Mininni, Bartolomeo Dichio *, Giuseppe Carlucci, Teodosio Mazzolla, Vittoria Ditaranto, Ettore Vadini

14:15 Plant establishment and substrate performance in bioswales under a cold temperate climate
Jessica Champagne-Caron *, Monique Poulin, Guillaume Grégoire

14:20 Benefits of variable biostimulant dose on urban lawns under hydric stress
José Marin, Lorena Parra, Pedro V. Mauri Ablanque *

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 7

14:25	Hydrological efficiency of established rain gardens and plant adaptability to their soil water conditions	GiamPaolo Assist. Zanin *, Lucia Bortolini
14:30	Suitability of dielectric soil moisture sensors for measuring the water supply status of green roofs	Heinz-Josef Schmitz, Ivonne Jüttner, Dieter Lohr *, Elke Meinken
14:35	Green roof thermal behaviour : a long term monitoring on an experimental green roof	Philippe Faucon *, Arnaud Fertet, Mayeul Duval
14:40	Herbaceous ornamental species for extensive green roofs	Mariana Grassi Noya, Francine Lorena Cuquel *
14:45	Selection of ornamental species with different respiratory metabolism for use on green roofs	Carlyn Omoze Yakubu, Stella Aurea C. Gomes da Silva, Vivian Loges *, Simone Santos Lira Silva, Francesco Orsini, Giorgio P. Gianquinto, Alessandra Bonoli
14:50	Green roof plant selection to use in fiber cement roofing	Vivian Loges *, Sueynne Marcella Santana Leite Ba, Stella Aurea C. Ms. Gomes Silva, Simone Santos Lira Silva, Cristiane Guiselini, Jessika Silva de Oliveira
14:55	Quality over quantity for improving the cultural ecosystem services of urban greeneries in the Arid Regions	Majid Amanibeni *, Mohammad Reza Khalilnezhad, Zhongwei Shen
Session P2 - Ecosystem services and multi-functionality in Green Cities Screen S07.2 Chair: Patricia Duarte de Oliveira Paiva, Universidade Federal de Lavras, Brazil		Cabernet Room
14:00	The trajectory of the landscape and functionality of urban watercourses: a study of Lavras city, Brazil	Patricia Paiva *, Rafael de Brito Sousa, Michele Valquiria dos Reis, Nathalie Carcaud
14:05	A future landscaping conduct directive: to preserve green and historical patrimony areas or to adjust it to the humans and traffic needs?	Francine Lorena Cuquel *, Sophia L. Karl Queiroz
14:10	Reforestation as part of an urban eco-horticultural infrastructure	Giovanni Bazzocchi *, Alessandra Rota, Francesco Orsini
14:15	Shades of green – planting considerations to support biodiversity in cities	Noeleen Smyth *
14:20	A research methodology to select tree species able to meet the challenge of climate change adaptation in cities: case study on street tree monitoring in Paris	Julien Thierry *, Sophie Herpin, Fabrice Rodriguez, Mathilde Renard, Marie Gantois, Pierre-Emmanuel Bournet
14:25	Plant-syrphid interactions in an urban farm matrix	Agata Morelli, Simone Flaminio, Daniele Sommaggio, Francesco Orsini, Giovanni Bazzocchi *
14:30	Diversification of urban lawns to attract pollinators and to maintain their resilience	Anais Grenier *, Guillaume Grégoire, Valérie Fournier, Frédéric McCune, Colin Favret, Étienne Normandin-Leclerc
14:35	Understanding ecological relations among pollinators and nativars: a case study using Asclepias (milkweed)	Justin Peterman *, Marc van Iersel
14:40	Desealing soils to promote ecosystem services: an in situ experimental device	Robin Dagois *, Claire Vieillard, Laure Vidal-Beaudet, Stéphanie Ouvrard
14:45	Desealing soils to promote ecosystem services: synthetizing practices among stakeholders	Robin Dagois *, Claire Vieillard, Laure Vidal-Beaudet, Stéphanie Ouvrard
14:50	Mitigation of winter rainfall by hedges' does plant choice matter?	Mathew Rees, Paul McAleer, Elisabeth Larsen, Mark Gush, Tijana Blanusca *
14:55	Climate change and the effect it has on plant selection in the urban landscape	Kara - Lee Prinsloo *, Elaine Kuschke, Retha Slabbert

S11: INTERNATIONAL SYMPOSIUM ON ADAPTATION OF HORTICULTURAL PLANTS TO ABIOTIC STRESSES

ORAL PRESENTATIONS

Session 03 - Response to drought and different water regimes
 Chair: Susana Carvalho, GreenUPorto-Sustainable Agrifood Production, Faculty of Sciences of University of Porto, Portugal

Cointreau Room - Screen 1

10:30	Keynote: Using biostimulants to help crops tolerate better abiotic stress	Juan Carlos Cabrera *
11:00	Tomato plants with different endogenous ABA levels show unique phenotypic and phytohormones response to elevated CO2 and progressive soil drying	Kehao Liang *, Fulai Liu
11:15	Epigenetic and physiological adaptative responses of apple seedlings to drought stress	Patricia Mallegol *, Amanda Cattani Malvessi, Sandrine Balzergue, Sylvain Hanteville, Jean-Marc Celton
11:30	Responses of some local tomato genotypes to water deficit	Yüksel Tüzel, Tunç Durdu *, Omar Saley Harouna, Gölgen Bahar Öztekin, Tansel Kaygisiz Ascioğul
11:45	Avocado green stems photosynthesis and its relationship with plant hydraulics	Nadia Valverdi *, Paula Guzmán-Delgado, Camilla Acosta, Gabriella Dauber, Gregory Goldsmith, Eleinis Avila-Lovera
12:00	Leaf physiological and biochemical characteristics of commercial and traditional <i>Prunus dulcis</i> (Mill.) cultivars under rain-fed conditions	Ivo Oliveira *, Anne S. Meyer, Sílvia Afonso, Berta Gonçalves
12:15	The wild almond <i>P. arabica</i> utilizes stems as a major source tissue for photosynthesis	Tamar Azoulay-Shemer *
12:30	Antioxidants and morpho-physiological responses of <i>Rosa damascena</i> Kashan genotype to Nano-Silicon under invitro water deficit	Hanifeh Seyed Hajizadeh *, Sahar Azizi, Volkan Okatan

Session 04 - Understanding and manipulating cold tolerance
 Chair: Fulai Liu, University of Copenhagen, Denmark

Cointreau Room - Screen 1

15:30	Keynote. Physiological and molecular mechanisms of cold deacclimation – a crucial part of plant winter survival in a warming world	Majken Pagter *, Kora Vyse, Ellen Zuther
16:00	Breeding for frost resistance in <i>Lavandula</i> spp	Ewout Van Oost *, Leen Leus, Bert De Rybel, Katrijn Van Laere
16:15	Profiles on abscisic acid, soluble sugars, and glucosinolates metabolites of kimchi cabbage with biostimulants foliar application under extremely high and low temperature condition	Ha Seon Sim *, Ui Jeong Woo, Won Jun Jo, Hye Jin Lee, Yu Hyun Moon, Soo Bin Jung, Su Ran Ahn, Jung Su Jo, Sung Kyeom Kim
16:30	Chemical priming for improving the response of avocado 'Hass' to chilling and frost stress	Dana Charuvi *, Vivekanand Tiwari, Itzhak Kamara, Kira Ratner, Naveen C. Joshi, Deepanker Yadav, Adi Faigenboim, Vered Irihimovitch, Yuval Bussi
16:45	Dissecting peach cold hardiness eco-physiology and metabolism	Ioannis Minas *, David Sterle, Brendon Anthony, Adam Heuberger, Jessica Prenni

E-POSTER FLASH PRESENTATIONS

Session P3 - Response to drought and different water regimes
 Screen S11.1
 Chair: Bal Krishna Yadav, JAINS, India

Botanical Room - Screen 1

14:00	Influence of silica nanoparticles on the enzymatic and non-enzymatic antioxidant activity of green pea (<i>Pisum sativum</i> L.) affected by drought	Ruta Sutuliene *, Jurga Miliauskiene, Lina Rageliene
14:05	Drought stress affects productivity and fruit size of new apple cultivars	Pavol Suran *, Gabriela Pravcova

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 11

14:10	NIR spectroscopy used as tool of determination of sweet cherry maturity stage and fruit quality under different irrigation doses	Pavol Suran *, Gabriela Pravcova, Martina Mareckova
14:15	Evaluation of broadleaved evergreen groundcovers for un-irrigated landscapes in western Oregon	Neil Bell *, Heather Stoven, Lloyd Nackley
14:20	Factors affecting water stress coefficient (Ks) estimation in olive orchards	Efthimios Kokkotos, Anastasios Zotos, Vasillios Triantafyllidis, Angelos Patakas *
14:25	Sap flow measurements as a tool to predict olive tree irrigation requirements under limited soil water availability conditions	Efthimios Kokkotos, Anastasios Zotos, George Tsirogiannis, Vassilios Triantafyllidis, Angelos Patakas *
14:30	Plant treatment in the early phase of development leads to plant tolerance	Simone Röhlen-Schmittgen *, Jana Zinkernagel
14:35	Transcriptome profiles by RNA-seq of the cultivated eggplant (<i>Solanum melongena</i> L.) and its wild relative <i>S. dasyphyllum</i> under osmotic stress	Jaime Prohens *, Gloria Villanueva, Mariola Plazas, Santiago Vilanova, Pietro Gramazio
14:40	Unraveling drought tolerance in pepper plants through RNA-seq analysis	Yaiza Padilla *, Ramón Gisbert Mullor, Eduardo Bueso, Salvador López Galarza, Angeles Calatayud
Session P4 - Understanding and manipulating cold tolerance Screen S11.2 Chair: Majken Pagter, Aalborg University, Denmark		Botanical Room - Screen 2
14:00	Cold tolerance of Latvian local sweet cherries selected for agroforestry system	Daina Feldmane *, Dagnija Lazdina, Uldis Daugavietis, Dace Treigute, Mudrite Daugaviete
14:05	Differential expression of gene and transcription factor associated abscisic acid biosynthesis and signaling in two <i>Capsicum annuum</i> genotypes differing in chilling sensitivity	Jieun Seo *, Eun Jin Lee, Jeong Gu Lee
14:10	Evaluating olives for cold hardiness and cultivation in western Oregon	Neil Bell *, Heather Stoven, Hayley White
14:15	Carbohydrate concentrations and determination of frost hardiness (DT50) with ion leakage test in apple tree (<i>Malus x domestica</i> Borkh.) shoots and buds during cold acclimation	Pauliina Palonen *, Maria Vaahtera, Iiris Lettojärvi, Jaana Luoranen, Tuuli Haikonen, Sanna Finni
14:20	Fruitset stabilisation in frost situations - pip an stone fruits	Michael Zoth *
Session P5 - Physiological responses to abiotic stress Screen S11.2 Chair: Fulai Liu, University of Copenhagen, Denmark		Botanical Room - Screen 2
17:15	Fruit quality and photosynthetic response of four cultivars of mango (<i>Mangifera indica</i> L.) in a greenhouse in South of Italy	Giovanni Gugliuzza *, Dario Scuderi, Vittorio Farina
17:20	Prediction of berry skin coloration of 'Kyoho' grapevine using the temperature at veraison	Suhyun Ryu *
17:25	Influence of endo-mycorrhiza on <i>Hydrangea macrophylla</i> subsp. <i>serrata</i> / tea-hortensia cultivation and dihydroisocoumarin content	Marcel Moll, Anna Ziegler, Maria Blings, Esther-Corinna Schwarze, Silke Hillebrand, Jakob Ley, Thorsten Kraska *, Ralf Pude

S13: INTERNATIONAL SYMPOSIUM ON PLANT NUTRITION, FERTILIZATION, SOIL MANAGEMENT

ORAL PRESENTATIONS

Session O3 - Plant physiology and quality of the products
Chair: Lee Kalcsits, Washington State University, USA

Panoramic Room - Screen 1

10:30	Keynote: Carbohydrate analysis: a new dimension to nutrient management of crops	Elmi Lotze *
11:00	Establishment of mineral optimal range for nutrient diagnosis for Date Palm (<i>Phoenix dactylifera</i> L.) in Tozeur Tunisian Oases	Mouna BenDaly Labaied, Lotfi Khiari, Nabila El Kadri, Anis Zouba, Foued Ben Hmida, Mehdi Ben Mimoun *
11:15	Nutrient status, canopy size, crop load and fruit quality of a fire impacted Royal Gala orchard: implications for orchard management	Oluyoye Idowu, Kevin Dodds, Tim Pitt, John Golding, Jessica Fearnley, Paul Petrie, Bruno Holzapfel *
11:30	Nitrogen form mediates resource allocation and growth of the C3 plant radish with well-balanced sink-source relationship under elevated CO2	Jana Zinkernagel *, Madita Lauer, Maximilian Koppel, Samantha Rubo, Lilian Schmidt
11:45	Accounting for crop load to identify rootstock differences in the incidence of nutrient-related physiological disorders in apple	Lee Kalcsits *, Bernardita Sallato, Juan Munguia Delacruz
12:00	Improving fruit nitrogen content and fruit skin background colour retention in 'Conference' pear	Bart Vanhoutte *, Bjorn Rombouts, Ann Gomand, Stephan Vandewijngaert, Jef Vercammen, Sofie Reynaert, Jonas Verellen, Pieter Janssens, Ben Colpaert, Kathy Stepe, Pascal Boeckx, Dany Bylemans, Serge Remy
12:15	Groundcover management strategies for improving fruit set by alleviating abiotic stresses and enhance soil organic carbon and nitrogen contents in a sweet cherry orchard in Okanagan Valley, Canada	Mehdi Sharifi *, Hao Xu, Daniell Ediger, Bill Rabie, Sarah Gafner-Bergeron, Sebastian Damin
12:30	Macroelements composition of nettle in hydroponic production	Marko Petek *, Sanja Radman, Nevena Opacic, Sandra Voca, Lepomir Coga, Sanja Fabek Uher, Bozidar Benko, Nina Toth, Jana Sic Zlabur

Session O3 - Plant physiology and quality of the products
Chair: Lee Kalcsits, Washington State University, USA

Panoramic Room - Screen 1

15:30	Postharvest Gulupa's (<i>Passiflora edulis</i> Sims f. <i>edulis</i>) quality under organic integrate fertilization in Amazonian Colombia's Region	Paula Andrea Uribe Benavides *, Francisco Muñoz, María Soledad Hernández, Orlando Martínez, Juan Pablo Fernández
15:45	Yield, quality and antioxidants of greenhouse grown tomato 'mini-plum' as affected by biostimulant treatment duration in southern Italy	Alessio Tallarita *, Lorenzo Vecchiotti, Eugenio Cozzolino, Agnieszka Sekara, Massimo Mirabella, Antonio Cuciniello, Vincenzo Cenvinzo, Gianluca Caruso
16:00	Effect of rootstock on apple tree nutrition	Darius Kviklys *
16:15	Response of cucumber (<i>Cucumis sativus</i> L., cv. Kiara) plants, grown on own root or grafted onto different rootstocks, to high nutrient solution concentrations	Elena Topalova *, Andon Vasilev, Valentina Petkova
16:30	The potential influence of floral elemental content on pollination in avocados (<i>Persea americana</i> Mill.)	Michelle Stanton *, Elsa S. Du Toit

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 13

E-POSTER FLASH PRESENTATIONS

Session P2 - Mineral and organic fertilization
Screen S13.1
Chair: Patrice Cannavo, Institut Agro, France

Panoramic Room - Screen 1

14:00	Evaluation of the growth and metabolic response of grapevine saplings in different doses of five commercial biostimulants	Vasileios Papantzikos, Georgios Patakioutas, Eleni Lampraki, Paraskevi Beza, Pinelopi Baltzoi*, Dimitrios Kyrkas, Nikolaos Mantzos, Vasileios Stournaras, Konstantina Fotia, Konstantinos Zisis, Aliko Panagiotou
14:05	Use of recovered struvite and ammonium nitrate in two fertigated edible crop rotation cycle in soil	Mar Carreras-Sempere*, Miriam Guivernau, Marc Viñas, Rafaela Cáceres, Carmen Biel
14:10	Calcium imaging using GCaMP6 in tomato (<i>Solanum lycopersicum</i>)	Ryunosuke Harada*, Daisuke Kurihara, Chiaki Hori, Keitaro Yamada, Kazuhisa Kato, Yoshinori Kanayama
14:15	Development of a pyrolytic aqueous phase derived from resinous wood and having a biostimulant action for plant growth	Selmene Ouertani*, Sébastien Lange, Pascale Ontchangalt, Christian Roy
14:20	RUSTICA : Biofertilisers made of fruits and vegetables waste	Laura Perez*
14:25	Anaerobic digestate to sustain horticultural needs: undertaking a scientific assessment	Thomas Escott*, Ian C. Dodd, Alistair Wannop, William Tuer, Philip M. Haygarth
14:30	Impact of fertilization level during flowering phase on blueness of hydrangea sepals and plant visual quality	Vincent Guérin*, Hanaé Roman, Lydie Huché-Thélier, Bera Ley-Ngardigal, Elise Herbomez, Thomas Eveleens, Nathalie Leduc
14:35	Sulfur nutrition to improve garlic bulb yield and quality	Stephen Harper*, Binh Nguyen, Bernhard Wehr, Neal Menzies, Timothy O'Hare
14:40	Extractable cadmium and soil pH as influenced by poultry manure application	Adekemi Shokalu*, Michael Adetunji, Jacob Bodunde, Henry Akinwumi Akintoye, Jamiu Azeez

Session P3 - Plant physiology and quality of the products
Screen S13.2
Chair: François Lecompte, INRAE, France

Panoramic Room - Screen 2

14:00	Understanding the molecular and physiological basis of tipburn in lettuce	Andrew Beacham*, Katie Wilkins, Jim Monaghan, Julia Davies, Guy Barker
14:05	Soil acidifying treatments do not improve 'Honeycrisp' apple fruit quality	Bernardita Sallato*, Hamada Hussien, Troy Peters
14:10	Effects of nutrition elements to the productivity of common beans (<i>Phaseolus vulgaris</i> L.)	Danguole Juskeviciene*, Rasa Karkleliene, Audrius Radzevicius, Danguole Kavaliauskaite
14:15	Influence of exogenous phytohormones on Green Pea (<i>Pisum sativum</i> L.) productivity through metabolic and physiological response	Martynas Urbutis*, Giedr Samuolien
14:20	Nitrogen effectiveness on blueberry yield and quality	Jana Apse*, Aldis Karklins, Anita Osvalde
14:25	Genotypic differences in N response, N efficiency traits and spectral reflectance behavior among six common broccoli varieties	Felix Besand*, Bianca Mausolf, Kai-Uwe Katroschan
14:30	Can reduction of autumn ferti-irrigation increase hydrangea quality during cold storage without consequences on flower quality?	Lydie Huche-Thélier*, Hanaé ROMAN, Nathalie Brouard, Rebecca Fewou, Thomas Eveleens, Vincent Guerin, Nathalie Leduc
14:35	Genotypic variability of lettuce root system in response to P availability	Francois Lecompte*, Loic Pagès, Amira Beroueg

*Indicates presenting author

14:40	Electric stimulation promotes growth, mineral uptake, and antioxidant accumulation in <i>Brassica oleracea</i> var. <i>acephala</i>	Sora Lee*, Myung-Min Oh
14:45	Nutrient deficiency effects growth, flower quality and yield of American Marigold (<i>Tagetes erecta</i>)	Soraya Ruamrungsri*, Kanokwan Punjama, Chaiartid Inkham
14:50	The relationship between plant nitrogen demand and root nitrate uptake	Yifei Zhao*, Benoît Lacombe, L.F.M. Marcelis
14:55	Field multi-omics analysis using causal discovery method reveals agroecological interactions that improve vegetable yield and quality	Fuki Fujiwara*, Naoto Nihei, Atsushi Fukushima, Kenta Suzuki, Shohei Shimizu, Jun Kikuchi, Tomoko Matsumoto, Kae Miyazawa, Yasunori Ichihashi

Session P3 - Plant physiology and quality of the products
Screen S13.1
Chair: François Lecompte, INRAE, France

Panoramic Room - Screen 1

17:10	Sensitivity of <i>capsicum</i> germplasm to magnesium deficiency grown in solution culture	Stephen Harper*, Phuong Nguyen, Michael Bell
17:15	Seasonal variation of leaf Ca, Fe, and Mn concentration in six olive cultivars	Ioanna Manolikaki, Nektaria Digalaki, Georgios Psarras, Konstantinos Tzerakis, Chrysi Sergentani, Anastasia Papamanolioudaki, Safiye Tul, Georgios Koubouris*
17:20	Low water provision differently affects plant growth and seed mineral profile of kabuli and desi chickpeas (<i>Cicer arietinum</i>)	Marta Nunes da Silva*, Janaina S Medeiros, Carla S Santos, Marta W Vasconcelos
17:25	Preparation and efficacy of plant-derived insecticides and herbicides	Junsong Liu*

S14: INTERNATIONAL SYMPOSIUM ON SUSTAINABLE CONTROL OF PESTS AND DISEASES

Symposium supported by :



ORAL PRESENTATIONS

Session O1 - Biocontrol strategies and methods I
Chair: Monica Hofte, Ghent University, Belgium

Grand Angle Room B - Screen 1

10:30	Keynote: Multifaceted benefits of biological control of horticultural insect pests	George Heimpel*
11:00	Exploiting the potential of natural enemies to control alien insect pests	Dominique Mazzi*, Mauro Jermini, Jana Collatz, Lukas Seehausen
11:15	Evaluation of entomopathogenic fungi, <i>Beauveria bassiana</i> against the management of Diamondback moth, <i>Plutella xylostella</i>	Lincy Kirubhadharsini*, Nakkeeran Sevugaperumal, JS Kennedy
11:30	Exploring the potential of fruit-isolated microbes as biological control agents against <i>Botrytis cinerea</i> in strawberry	Chiara Murena, Antonia Barberio, Héber Oliveira, Tania R. Fernandes*, Susana M. P. Carvalho
11:45	Interests of companion plants in apple and peach orchards to control aphids	Julie Borg*, Laurent Gomez, Guy Costagliola, Hélène Gautier

Session O1 - Biocontrol strategies and methods II
Chair: Michele Ricupero, University of Catania, Italy

Grand Angle Room B - Screen 1

15:30	Modeling biological control of tomato root-knot nematode by predatory mites in the presence of an alternative prey	Thais Juliane Do Prado*, Yann Tricault, Larissa J. Rossini, Pedro L. M. Soares, Raphael de C. Castilho
15:45	Biocontrol of the box tree moth, <i>Cydalima perspectalis</i> , with macro-organisms	Elisabeth Tabone*, Emeline Morel, Ety Colombel, Caroline Eyssan, Jean-Marc Deogratias, Maxime Guerin
16:00	Different management strategies for non-cropping plants in pear orchards and their impact on biological control	Tim Belien, Ammar Alhmedi*, Dany Bylemans

TUESDAY 16 AUGUST

SYMPOSIUM 14

16:15	How the use of companion plants can improve the colonization of tomato crop by <i>Macrolophus pygmaeus</i> , in the context of soilless production?	Benjamin Gard *, Amélie Bardel, Marion Diemer, Mélina Archinard
16:30	Application of a bio-control agent and other practices for controlling strawberry anthracnose in Taiwan	Tsung-Chun Lin*

E-POSTER FLASH PRESENTATIONS

Session P1- Biocontrol strategies and methods I
Screen S14.1
Chair: Benjamin Gard, Ctifl, France

Grand Angle Room B - Screen 1

14:00	Suppression of water-borne diseases using <i>Bacillus subtilis</i> var. natto in hydroponic cultures	Takuya Wada *, Toshiyuki Usami
14:05	Manipulating parasitoid behaviour with LED greenhouse lighting to improve biocontrol of aphids	Jessica Fraser *, Paul Abram, Martine Dorais
14:10	Application of antagonistic bacteria in management of <i>Agrobacterium tumefaciens</i> (crown gall disease) on roses in Kenya	Aprodisia Kavutu*, Maina Mwangi, Ruth Kahuthia-Gathu
14:15	Inundative release of <i>Anastatus bifasciatus</i> for the control of the Brown Marmorated Stink Bug (<i>Halyomorpha halys</i>) in Trentino region	Anna Aldrighetti *, Lorenzo Colombo
14:20	Towards enlightened choices for both natural enemies and plants! Screening of artificial light conditions favoring bug predation & their effect on selected phytohormones	Morgane Canovas *, Adam Barrada, Jonathan Levesque, Tigran Galstian, Martine Dorais
14:25	French marigold as a companion plant to control aphids and aphid-borne viruses in pepper crops: service or disservice?	Alexandra Schoeny *, Guillaume Serra, Mathilde Veis-Barcelli, Grégory Girardot, Laurent Gomez, Hélène Gautier
14:30	Trichoderma spp potential as a biocontrol agent against the bacteriosis black rot in cauliflower caused by <i>Xanthomonas campestris</i> pv <i>campestris</i>	Roxane Baudoin *, Caroline Bonneau, Franck Bastide, Thomas Guillemette, Elisa Thalinger, Damien Grizard, Anthony Kwasiborski, Perline David
14:35	A quick and easy-to-apply monitoring strategy is the key to success for IPM in berry fruit	Tim Belien, Femke De Vis *, Dany Bylemans
14:40	Application of antagonistic bacteria in management of <i>Agrobacterium tumefaciens</i> (crown gall disease) on roses in Kenya	Maina Mwangi *, Aprodisia Kavutu, Ruth Kahuthia-Gathu
14:45	Antagonistic activity of extremophilic fungal and bacterial strains against soil borne diseases of vegetable crops	Abdullah Al-Sadi *, Rethinasamy Velazhahan
14:50	Effect of Push-pull technology on natural enemies of the maize armyworm in Senegal	Amadou Balde *, Babacar Labou, Etienne Tendeng, Mamadou Diatte, Elhadji Serigne Sylla, Issa Alé Ndiaye, Oumar Seydi, Pape Diop, Serigne Omar Sene, Karamoko Diarra
14:55	Potential of generalist predators for biological control of the key invasive tomato pest, <i>Tuta absoluta</i> in Senegal	Elhadji Serigne Sylla *, Omar Seydi, Babacar Labou, Mamadou Diatte, Etienne Tendeng, Amadou Balde, Issa Alé Ndiaye, Serigne Omar Sene, Pape Diop, Karamoko Diarra

Session P2 - Natural and synthetic compounds for disease control
Screen S14.2
Chair: Ozgur Batuman, USA

Grand Angle Room B - Screen 2

14:00	Development of a new crop protection strategy against fungal diseases: the Sensitines®	Ophélie Dubreu *, Thomas Guillemette, Marie-Noëlle Brisset, Emmanuel Pajot
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14:05	Effect of plant resistance inducer on the evolution of <i>Venturia inaequalis</i> populations - consequences for sustainability	Valérie Caffier *, Marie-Noëlle Bellanger, Frédérique Didelot, Sarah Fauvre, Matthieu Gaucher, Michel Giraud, Farhana Jenny, Jean Le Maguet, Bruno Le Cam
14:10	Biological control of main diseases and pests on melon crops in the field	Gabriela Sovarel *, Ioan Scurtu, Simona Stefania Hoge, Gicuta Sbirciog
14:15	Screening of commercialized protection products against apple canker in controlled conditions	Caroline Bonneau *, Marion Sineux, Emmanuelle Osbert, Lionel Vandekerckhove, Caroline Servant, Olivier Zekri, Claude Coureau, Laëtitia Porcher
14:20	Unveiling the effects of hinokitiol (thujaplicin) on ergosterol biosynthesis in <i>botrytis cinerea</i>	Nisareefah Benyakart *, Hitomi Umehara, Drupadi Ciptaningtyas, Takeo Shiina
14:25	The efficacy of Moringa leaf extracts as potential bio-fungicides against <i>fusarium</i> dry rot of potato	Carren Mncube *, Isa Bertling, Kwasi Yobo
14:30	Assessing fungicide efficacy for improved management of the wild blueberry foliar disease complex in eastern Canada	Alex Cornel *, David Percival
14:35	The behaviour of grapevine growers in the decision-making of using pesticides in Palmela region	Joana Ribeiro *, Miguel Cachão, Miguel Cachão, Sérgio Pinto

Session P5 - Detection and characterization of pests and diseases I
Screen S14.2
Chair: Zineb Belabess, INRA, Morocco

Grand Angle Room B - Screen 2

14:40	Fungal community in almond trees from Alentejo region	Ana Luísa Ferreira Faustino *, M. Margarida Oliveira, M. Rosário Félix, Lilliana Marum
14:45	Detection of plant viruses with high-throughput sequencing and in vitro elimination of detected viruses in <i>Dioscorea</i> spp	Elien Guldentops *, Anita Mihaylova, Yoika Foucart, Hajer Ben Ghazlen, Kris De Jonghe, Stefaan P.O. Werbrouck, Juan José Silva Pupa
14:50	Diagnosis of bacterial wilt in tomato genetic resources using OJIP parameters	Yu Kyoung Shin *, Shiva Ram Bhandari, Jae Woo Song, Myeong-Cheoul Cho, Eun Young Yang, Yul Kyun Ahn, Indeok Hwang, Jun Gu Lee
14:55	Monitoring of <i>Halyomorpha halys</i> in the northeastern Lake Constance fruit growing region	Michael Zoth *, Dominikus Kitemmann, Franziska Reinhard

Session P3 - Natural and synthetic compounds for pest and weed control I
Screen S14.3
Chair: Bérénice Foncoux, Belgium

Grand Angle Room B - Screen 3

14:00	Trunk injection of plant protection product to protect chestnut tree from fruit borers <i>Cydia splendana</i> and <i>Pammene fasciana</i>	Florence Verpont *, Adeline Renier, Nathalie Lebarbier
14:05	Sweet corn seeds coating with plant extracts for controlling corn weevil (<i>Sitophilus zeamais</i>) and their effect on seed germination	Jarongsak Pumnuan *, Potjana Sikhao, Kritima Sarapothong, Duangkamon Nameea, Thanapor Doungnapa, Anuwat Lakyat, Kamronwit Thipmanee
14:10	Effects of concentration and duration of contact on the insecticidal effects of Clove (<i>Syzygium aromaticum</i>) oil on cowpea beetle (<i>Callosobruchus maculatus</i>)	Olapeju Aiyelaagbe *, Ayoola Ayodele, Mobolade Akinbuluma, Isaac Aiyelaagbe
14:15	Sustainable method for thrips management in strawberry culture under greenhouse condition	Nelson Laurent *, Thierry Picaud, Amaury Moens, Sophie Serderidis, Damien Cariou
14:20	The effect of biological insecticides on predatory arthropods, commercial biological control agents	Angeliki Paspali, Evangelia Karakosta, Maria Moustakli, Anastasia Tsagkarakou *
14:25	Study of extremophile plant extracts as botanical herbicides	Sofiène Ben Kaab *, Bérénice Foncoux, Haissam Jijakli
14:30	Autumn control of the rosy apple aphid: a way forward to reduce the use of insecticides	Anne Duval-Chaboussou *

*Indicates presenting author

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SYMPOSIUM 14

14:35	Pheromone-based control of insect pests on currants	Olle Anderbrant *, Ann-Kristin Isaksson, Line Beate Lersveen, Christer Löfstedt, Sigrid Mogan, Elisabeth Öberg, Marja Rantanen, Glenn Svensson, Gunda Thöming
14:40	An innovative attract-and-kill approach to control <i>Drosophila suzukii</i> in cherries: Successful use of yeasts for pest management	Marko Bjeljac *, Urban Spitaler, Sergio Angeli, Silvia Schmidt
14:45	Isolation and chemical characterization of insect antifeedants from <i>Melia volkensii</i> against fall armyworm, <i>Spodoptera frugiperda</i> , and red flour beetle, <i>Tribolium castaneum</i>	Florence Olubayo *, Victor Jaoko, Stefaan Werbrouck, Guy Smagghe, Jan Vandenabeele, Titus Magomere, Sven Mangelinckx, Jackson Mulatya, Nji Tizi Clauvis Taning, Simon Backx, Pierfrancesco Motti
14:50	Monitoring and warning systems for the control of fruit flies in major mango producing areas of Nigeria	Vincent Umeh *

Session P4 - Alternative control methods I Screen S14.1 Chair: Eric Mozzanini, Italy

Grand Angle Room B - Screen 1

17:10	Drying leaves suppresses cucurbit downy mildew caused by <i>Pseudoperonospora cubensis</i>	Nonoka Nagahama *, Toshiyuki Usami
17:15	SmartProtect Platform: The platform of smart IPM techniques	Eriselda Canaj *, Mike Kaminiaris, Zisis Tsiropoul
17:20	Integrated application of nanomaterial and fungicide to interfere the fungicide resistance of phytopathogen	Yi-Chi Chen, Tao-Ho Chang, Han-Yu Hsueh, Jenn-Wen Huang, Pi-Fang Linda Chang *
17:25	SIT and codling moths in French walnut orchards	Ghais Zriki *, Agnès Verhaeghe, Jean-Baptiste Philibert, Audrey Dempsey, Benjamin Gard, Clelia Oliva, Jean-Michel Ricard
17:30	Is the sterile insect technique (SIT) an efficient pest control method against the spotted wing drosophila (<i>Drosophila suzukii</i>)?	Benjamin Gard *, Aurore Panel, Alexandra Labbetoul, Natacha Bosshard, Anne Xuereb, Bérénice Cariou, Allan Debelle, Clélia Oliva, Simon Fellous
17:35	Characterization of pepper-microbiome for identification of putative biocontrol agents against Southern blight caused by <i>Sclerotium rolfsii</i>	Lourena Maxwell *, Jaw-Rong Chen, Ya-Ping Lin, Zong-Ming Sheu, Derek Barchenger, Ricardo Oliva, Srinivasan Ramasamy
17:40	Potential of natural regulation of the tomato leafminer by its parasitoids in Senegal	Oumar Seydi *

Session P5 - Detection and characterization of pests and diseases II Screen S14.2 Chair: Ana Faustino, Portugal

Grand Angle Room B - Screen 2

17:10	Environmental effects on the sporulation of <i>Corynespora cassiicola</i> in cucumber leaf spots	Yui Sonoke *, Toshiyuki Usami
17:15	Evaluation of the MALDI-TOF technique for plant-pathogenic bacteria and construction of the reference spectra database at CIRM-CFBP	Perrine Portier *, Cecile Dutrieux, Geraldine Taghouti, Audrey Lathus, Tatiana Amelon, Lea Vannier
17:20	Survey of disease of amaranth (<i>Amaranthus spp. L.</i>) in Tanzania revealed multiple fungi and virus infections	Wubetu Bihon Legesse *, Zong-ming Sheu, Raphael Mallogo, Jaw-rong Chen, Li-mei Lee, Lawrence Kenyon, Ramasamy Srinivasan, Roland Schafleitner
17:25	Development of molecular diagnosis of Chinese yam necrotic mosaic virus infecting <i>Dioscorea spp</i>	Mei-Ju Lin *, Ting-Chin Deng, Chia-Shin Tsai, Yi-Ting Lin
17:30	Preference of <i>Epilachna chrysomelina</i> on five vegetable hosts and Phytochemical analysis of the host plants	Adekemi Shokalu *, Oluwakemi Akinkunmi, Olufemi Pitan, Henry Akinwumi Akintoye

Session P6 - Genetics and mechanisms underlying plant resistance and pathogen virulence I

Screen S14.3

Chair: Concetta Licciardello

Grand Angle Room B - Screen 3

17:10	Fungal ethylene biosynthesis in the <i>Verticillium dahliae</i> -sweet pepper interaction	Shirley Marcou *, Monica Höfte, Lien Tyvaert, Thomas Depaepe, Dominique Van Der Straeten, Siel Goethals
17:15	Functional analyse of the agglutinin gene family in apple/ <i>Erwinia amylovora</i> interaction	Antoine Bodelot *, Nicolas Dousset, Elisa Ravon, Christelle Heintz, Erwan Chavonet, Matthieu Gaucher, Marie-Noelle Brisset, Alexandre Degrave, Emilie Vergne
17:20	Genetic and chemical analyses of <i>Alternaria</i> and <i>Curvularia</i> species associated to leaf spot disease on date palm, in South Tunisia	Amal Rabaoui *, Stefaan Werbrouck, Antonio Moretti, Chiara Dall'Asta

S15: INTERNATIONAL SYMPOSIUM ON AGROECOLOGY AND SYSTEM APPROACH FOR SUSTAINABLE AND RESILIENT HORTICULTURAL PRODUCTION

ORAL PRESENTATIONS

Session O3 - Knowledge, collective actions and socio-economical systems in agroecology

Chair: Sara Burbi, Coventry University, United Kingdom

Open Garden Room - Screen 1

10:30	Keynote: Development, management and dissemination of agroecological strategies and systems	Adamo Domenico Rombolà *
11:00	Field experiments assessing companion plants for crop health in horticulture provide actionable knowledge	Amélie Lefèvre *, Roxane Schott, Marie Chave
11:15	Support and massify agroecology practices with an operational toolbox - the French case study	Vincent Levavasseur *
11:30	First steps in the agroecological transition for market gardeners in Yamoussoukro: brakes and levers	Antoine De Troij *, Raphael Belmin, Kouadio Kan, S. Diabate, M.F. Kouadio, R. Laloge, P. Fernandes, Thomas Michel, A. Darras and Thibaud Martin
11:45	Cocoa and coffee agroforestry systems constraints analysis in order to improve the reforestation process : case of Togo	Marius Céron-Siméon, Ayi K. Adden, Samuel Laboisie *, Ludovic Andres
12:00	Assessing farmer field schools process to improve the participation of local actors: a case study in Tunisia	Rahma Jaouadi *, Guillaume Lestrelin, Nadhira Ben Aissa, Mehdi Ben Mimoun, Sami Bouarfa, Eric Scopel
12:15	Commercialising an indigenous agroforestry tree: Overview of commercial processing methods for <i>Canarium indicum</i> (galip) nuts in Papua New Guinea	Helen Wallace *, Dalsie Hannet *, Godfrey Hannet, Shahla Hosseini Bai, Kim Jones, Birte Komolong

Session O4 - Resilience construction to climate change

Chair: Martine Dorais, University of Laval, Canada

Open Garden Room - Screen 1

15:30	Acidification, N-mineralisation and carbon sequestration in an orchard soil at Klein-Altendorf after 50 years	Achim Kunz, Michael Blanke *
15:45	Long term application of animal and forest waste on a vineyard and its effect on yield and soil health	Girish K.S. Panicker *, Leonard Kibet, Willie Mims, Frank Matta, Juan Silva
16:00	Assessing carbon sequestration and its within-vine allocation in the vineyard	Leonardo Montagnani, Torben Oliver Callesen, Carina Veronica Gonzales, Flávio Bastos Campos, Massimo Tagliavini *
16:15	Energy efficiency and carbon emissions in fruit orchards	Maria Claudia Dussi *, Cristina Fernández, Liliana Flores

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 15

16:30	<i>Pleurotus eryngii</i> production in axenic blocks containing agro-industrial wastes	Francine Lorena Cuquel, Gabriel Lucas Jesus, Gabriel Dias de Oliveira *, Ricardo Silva
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16:45	The agronomic potential of a new vertical growing farming system using biofertilizers and peat-based wood fibre growing medium: lettuce as a case study	Guillaume Paquet *, Thi Thuy An Nguyen, Annie Bregard, Adam Barrada, Gino Poirier, Martine Dorais
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EPOSTER FLASH PRESENTATIONS

Session P3 - Resilience construction to climate change Screen S15.1 Chair: Ulrich Schmutz, Coventry University, United Kingdom		Open Garden Room - Screen 1
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14:00	Adaptation of vegetable farmers to climate change in the Parisian region: a participatory approach using climate data	Nabil Touili, Christine Aubry, Nathalie De Noblet-Ducoudré, Kevin Morel *
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14:05	CLIMATVEG: Transition and sustainability of crop production systems in the context of climate change	Marie-Pierre Cassagnes, Solen Leherissey, H. Freulon *
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14:10	Alternative fertilisers from legumes and waste materials for organic vegetable production: yields and nutrient balances of cabbage and spinach	Carolyn Weiler *, Sadia Sana, Kurt Möller, Sabine Zikeli
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14:15	Response of potted herbs to different solid organic fertilizations	Annie Brégard, Thi Thuy An Nguyen, N. Zyromski, Martine Dorais *
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14:20	King oyster mushroom production in axenic blocks supplemented with brewery residue	Gabriel Dias de Oliveira *, G. L. Jesus, R. S. A. Silva, Francine Lorena Cuquel
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14:25	Development and application of mushroom cultivation waste recycling technology on flower cultivation in Taiwan	Jin-Tong Chen *, Chu-Chung Chen, MJ. Lin, Che-Wei Chu, Jung-Yi Wu, Ting-En Dai
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14:30	Impact of soil management on biodiversity, soil properties and climate change mitigation-related agroecological indicators	Safiye Tul, Ioanna Manolikaki, Nektaria Digalaki, Georgios Psarras, Ioannis Koufakis, Argyro Kalaitzaki, Chrysi Sergeantani, Georgios Koubouris *
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14:35	Multiple benefits of soil agroecological strategies in an Italian vineyard (cv. Sangiovese) prone to drought	Alessandra Lombini *, Adamo Domenico Rombolà
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14:40	Influence of planting and hilling configurations on potato (<i>Solanum tuberosum</i> L.) production in North Dakota	Matthew Brooke, Andrej Svyantek, J. Stenger, Collin Auwarter, Dean Steele, Harlene Hatterman-Valenti *
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14:45	Agronomic effects of reclaimed water used for tomato (<i>Solanum lycopersicum</i> L.) and lettuce (<i>Lactuca sativa</i> L.) irrigation	Giulio Flavio Rizzo *, Luca Ciccarello, Michele Davide Felis, Giuseppe Cirelli, Mirco Milani, Ferdinando Branca
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14:50	Soil temperature increases by ca. 1.1°K in a fruit orchard due to climate change – results of 50 year records	Achim Kunz, Michael Blanke *
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Session P4 - Knowledge, collective actions and socio-economical systems in agroecology Screen S15.2 Chair: Helen Wallace, Griffith University, Australia		Open Garden Room - Screen 2
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14:00	Evaluation of fruit orchards as potential agroecological lighthouses	Liliana Flores, Maria Claudia Dussi *, Myrian Barrionuevo, Karina Zon
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14:05	How multi-species and pesticide-free orchards affect the observation practice?	Servane Penvern *, Agathe Legendre, Marianne Cerf, Sylvaine Simon, Jean-Michel Ricard, Blandine Rosies
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14:10	Agroecological transition strategies and collective action dynamics within Geographical Indication systems : case study of the Loire valley wine basin	Faustine Ruggieri *, Cécile Coulon-Leroy, Philippe Mongondry, Armelle Mazé
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14:15	Does history count ? The case of a watershed in Martinique to illustrate the issues and power play between actors in the management of innovation	Orianne Signarbieux *, Serge Simon, Laurent Parrot
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14:20	Scaling suitable, sustainable technologies for smallholder farmers in Cambodia	Gracie Pekarcik *, David Ader, Rick Bates, Thomas Gill, Hans Goertz, S. Huot
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14:25	Price as a political construct: institutionalization trajectories and valorization of agroecology in Kenya	Laurent Parrot *, Aude Sany
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14:30	Technical and economic references for multi-performing diversified market garden micro-farms in Organic Agriculture	Mathieu Conseil, Natacha Sautereau, Simon Rivière *, A. De Lapparent, Dominique Berry, Juliette Pellat, Julien Leroy, Alexia Arnaud-Dupont, Christian Icard, Cedric Hervouet, Nicolas Herbeth
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14:35	Enhancing agroecological practices among smallholders in developing countries: the prospects of a participatory guarantee system for Lebanon's organic sector	Mirella Aoun *, Rania Touma, A.C. Abboud
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14:40	Understanding the process of pesticide regulations, a cognitive and behavioral perspective	Laurent Parrot *, Chloé Faure
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Session P3 - Resilience construction to climate change Screen S15.1 Chair: Ulrich Schmutz, Coventry University, United Kingdom		Open Garden Room - Screen 1
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17:10	Measuring plant stress to design and steer agroecological systems: the grape vine example	Philippe Cousin *, Olivier Husson, Stephan Reinig, Maelys Richardoz
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17:15	Impact of an agrivoltaic system on <i>Aloe vera</i> growth in a semi-arid climate	Virginia Hernández, José Cos, Roberto Andrés, Miriam Di Blasi, María Genovese, Pilar Hellín, Fulgencio Contreras, Alfonso Guevara, José Fenoll, Pilar Flores *
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S17: INTERNATIONAL SYMPOSIUM ON INTEGRATIVE APPROACHES TO PRODUCT QUALITY IN FRUITS AND VEGETABLES

ORAL PRESENTATIONS

Session O2 - Measuring and Evaluating quality at harvest and after harvest Chair: David Page, INRAE, France		Amphitheatre Lagon
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10:30	Determination of tomato fruit life stages from long-term extracellular electrophysiology recordings	Thomas Caloz, Quentin Bernard, Daniel Tran, Cédric Camps, Alja van der Schuren *, Moritz Graeff, Nigel Wallbridge, Carrol Plummer, Andrzej Kurenda
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10:45	A Freshness index for Bell pepper fruit.	Bernhard Althaus, Michael Blanke *
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11:00	Hyperspectral imaging for predicting the chemical composition of fresh-cut pineapple (<i>Ananas comosus</i>).	Manuela Zude-Sasse *, Kaveh Mollazade, Norhashila B. Hashim
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11:15	New applications of infrared spectroscopy to detect and bridge the variability before and after apple processing.	Weiji Lan *, Benoit Jaillais, Catherine Renard, Alexandre Leca, Songchao Chen, Sylvie Bureau
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11:30	Taste of field grown vegetables in Sweden - searching for a sensory vocabulary.	Lars Mogren *, Gun Hagström, Halina Agerhem, Jenny Arnér
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11:45	HRATA : A new sensory methodology for a better aroma characterization : a case study on apple.	Ronan Symoneaux *, Céline Brasse, Corinne Patron
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12:00	Unraveling the true impact of orchard factors on peach fruit quality development using accurate, rapid and high-throughput non-destructive sensors.	Ioannis Minas *, Brendon Anthony, David Sterle, Jeff Pieper, Jake Pott
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*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 17

Session 03 - Modelling and predicting quality
Chair: Francisco Domingo Molina Aiz, University of Almería Spain

Amphitheatre Lagon

15:30	A virtual fruit model to simulate water deficit effects on water and solutes accumulation in the fruit and the consequences on fruit quality.	Dario Constantinescu *, Michel Génard, Gilles Vercambre, Nadia Bertin
15:45	The top-down modelling approach of tomato plant growth for more precise digital fruit simulation incorporating microclimate and realistic plant management.	Jakub Salagovic *, Pieter Verboven, Kristof Holsteens, Bram Van de Poel, Bart Nicolai
16:00	Modelling approaches for designing better fleshy fruits: inspiration from studies on tomato and grape.	Jinliang Chen, Bertrand Beauvoit, Michel Génard, Junhua Kong, Eric Gomès, Yves Gibon, Zhanwu Dai *
16:15	A virtual fruit model to improve quality of ripe mangoes for consumption or drying by managing cultural practices and storage conditions.	Mathieu Lechaudel *, Antoine Drouillard, Isabelle Grechi, Mohamed Memmah, Michel Genard
16:30	A 3D hydromechanical model to simulate fruit tissue growth and morphogenesis using the discrete elements method (DEM).	Hans Van Cauteren *, Jef Vangheel, Pieter Verboven, Bart Smeets, Bart Nicolai
16:45	Dynamic prediction of fruit quality traits as a function of environmental and genetic factors	Alwin Hopf *

EPOSTER FLASH PRESENTATIONS

Session P4 - Quality build-up under the impact of pre- and post-harvest factors III
Screen 17.1
Chair: Jessica Cooperstone, The Ohio State University, USA

Room 302

14:00	Reducing water input on industrial tomatoes without affecting yield and fruit quality-A multi-annual study	Miarka Sinkora *, Lucas Lanoë, Robert Giovinazzo, François Zuber, Anne-Laure Fanciullino, David Page, Bertin Nadia
14:05	Hollow stem susceptibility of broccoli cultivars as affected by plant spacing	Alexander Frieman *, Carsten Vorsatz, Diemo Daum
14:10	Effects of light quality on the taste of green and red leaf lettuce	Yukiko Tomari *, Narumi Osuka, Isao Tamaoki, Sayumi Ono, Hiroyuki Watanabe
14:15	Management of light transmission through tree shading to maintain tomato yield and quality in a context of climate change	Hélène Gautier *, Sylvie Sérino, Valérie Serra, Gilles Vercambre, Ambroise Martin-Chave, Camille Beral
14:20	The effect of blue light irradiation to anthocyanin contents and its gene expression of lilac and dark purple paprika fruits during growth	Teruno Onozawa *, Jinen Hojo, Yuji Yamada, Takashi Ikeda
14:25	A novel methodology to produce the low-potassium vegetables using LED lighting source	Hiroyuki Watanabe *, Genzo Nakamae, Yukiko Tomari
14:30	Effect of increased temperature at different stages of fruit development on tomato fruit quality	Hélène Gautier *, Victoria A. Delgado-Vargas, Oscar J Ayala-Garay, Patricia Laugier, M.de Lourdes Arévalo-Galarza
14:35	Pomological and phenolic characterization of blood orange cultivars in a Mediterranean environment	Pilar Legua, Giulia Modica *, Ignacio Porras, Agustin Conesa, Alberto Continella
14:40	High temperature increases Micro-cracking incidence in fruits of resistant and susceptible tomato varieties	Marietta Gonroudobou *, Tomoyuki Nabeshima, Masanori Watanabe, Takashi Nishizawa
14:45	Effect of bloom time on pistachio development and nut quality at harvest	Jaclyn Adaskaveg *, Giulia Marino, Selina Wang, Barbara Blanco-Ulate
14:50	Comparison of fruit quality according to harvest time of 'Shine Muscat' grape (<i>Vitis labruscana</i> Bailey × <i>V. vinifera</i> L.)	Hong Ki Yoon *, Kyeong-Jin Kang, Han-na Park, U-Su Lee, Jeong-Hak Seo

14:55	Phytochemical composition, antioxidant and antibacterial activities of <i>Ziziphus mauritiana</i> and <i>Ziziphus spina-christi</i> fruit at various maturation stages	Adhah Aldhanhani, Navjot Kaur, Zienab Ahmed*
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Session P4 - Quality build-up under the impact of the impact of pre- and post-harvest factors IV
Screen S17.2
Chair: Thomas Breniere, INRAE, France

Room 303

14:00	Effects of GA4+7+6-BA and air circulation heating fan treatment on russetting in 'Scilate' apple fruit	U-Su Lee *, Hong-Ki Yoon, Kyeong-Jin Kang, Joong-Won Lee, Han-na Park, Jeong-Hak Seo
14:05	Evaluation on Near Infrared-reflective Diffuse coating for muskmelon production in simple plastic greenhouse during summer season	Wei-Ling Chen *, Chun-Jung Shen, Chang-Sheng Chien
14:10	Effect of the cultivation substrate on production and qualitative aspects of <i>Pleurotus ostreatus</i>	Carlo Nicoletto *, Silvia Locatelli, Marina De Bonis, Paolo Sambo
14:15	Effect of different bag type on fruit quality in 'Greensis pear'	Kyeong Kang *, Hong-Ki Yoon, U-Su Lee, Han-na Park, Jeong-Hak Seo
14:20	Pre-harvest bagging improves maturity and postharvest quality of cherry tomato	Tieho Paulus Mafeo *, Nana Millicent Duduzile Buthelezi, Mokgadi Pollet Mafotja, Nhlanhla Mathaba

S19: INTERNATIONAL SYMPOSIUM ON ADVANCES IN BERRY CROPS

ORAL PRESENTATIONS

Session 03 - Biotic and abiotic stresses
Chair: Bruno Mezzetti, Università Politecnica delle Marche, Italy

Amphitheatre Volney

10:30	Heat Effect on highbush blueberry breeding lines in Oregon and Washington	Todd William Anderson *, Kim Hummer, Claire Luby
10:45	The efficacy of priming agents on agronomic characteristics of raspberry (<i>Rubus idaeus</i> L.) under mild water stress conditions	George Manganaris *, Vassilis Fotopoulos, Nicolas Valanides, Chrystalla Antoniou
11:00	Elicitor application in strawberry results in long-term increase of plant resilience without yield loss	Kirsten Leiss *, Sanae Mouden, Johanna Bac-Molenaar, Iris Kappers, Ellen Beerling
11:15	A HIGS approach targeting the DCL1, Cyp51 and CHS genes of the pathogen to control <i>Colletotrichum acutatum</i> infection of strawberry	José-Javier Higuera-Sobrinho, Victoria Súnico, Lucía Cervantes-Cárdenas, Rosario Blanco-Portales, Enriqueta Moyano, Juan Muñoz-Blanco, José Luis Caballero Repullo *
11:30	HIGS and SIGS approaches targeting Cyp51 and SdhD of <i>B. cinerea</i> to control grey mould disease in strawberry and grapevine	Silvia Sabbadini *, Francesca Negrini, Luca Capriotti, Alice Ciofini, Angela Ricci, Daniel E. Gebremichael, Elena Baraldi, Bruno Mezzetti
11:45	Phenotype, phenology, and disease assessments in wild blueberry fields through the use of remote sensing technologies	David Percival *, Kenneth Anku, Joel Langdon, Ben Lynds

Session 04 - Plant development
Chair: Silvia Sabbadini, UPM, Ancona, Italy

Amphitheatre Volney

15:30	Spatio-temporal analysis of strawberry architecture on production condition	Marc Labadie *, Christophe Pradal, Beatrice Denoyes, Yves Caraglio
15:45	Relationship between cane age and reproductive/vegetative variables in highbush blueberry (<i>Vaccinium corymbosum</i> L.) in Chile and United States	Jorge B. Retamales *, María José Palma, Eric J. Hanson, Carlos M. Araya
16:00	Study of flower bud differentiation and development for improving strawberry productivity	Maria da Graça Palha *, Teresa Valdivieso, Cristina Oliveira, Pedro Oliveira

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 19

Session 05 - Fruits and post-harvest
Chair: Pedro N. Brás Oliveira, INIAV, Portugal

Amphitheatre Volney

16:15	Blueberry color and brightness is affected by cuticular wax composition	Yifan Yan *, Michael Dossette, Simone Diego Castellarin
16:30	Bluer than blue: regulation of delphinidin branch anthocyanins in <i>Vaccinium</i> berries	Laura Jaakola *, Amos Samkumar, Katja Karppinen, Inger Martinussen
16:45	Fruit quality parameters of eight blueberry cultivars in Kosovo	Kujtim Lepaja *, Lavdim Lepaja, Endrit Kullaj, Naim Krasniqi

E-POSTER FLASH PRESENTATIONS

Session P5 - Plant Development and post-harvest
Screen S19.1
Chair: Susan McCallum, James Hutton Institute, United Kingdom

Room 05

14:00	Relationship between temperature and PAR on rate of strawberry fruit ripening	Carrie-Anne Twitchen *, Paul Hadley
14:05		
14:10	Tolerance to <i>Tetranychus urticae</i> of different raspberry cultivars (<i>Rubus idaeus</i>)	Marina Gambardella *, Catalina Gomá, Paula Irlas, Hector Valdés, Elida Contreras
14:15	Examination of texture characteristics at harvest and postharvest and identification of QTLs in blueberry	Heeduk Oh *, Marti Pottorff, Molla Fentie Mengist, Lara Giongo, Massimo Iorizzo, Penelope Perkins-Veazie
14:20	Influence of light-reflecting mulching sheet and shading net on ascorbic acid content in blackcurrant fruits (<i>Ribes nigrum</i> L.)	Hirofuyuki Fujisawa *, Yoshitaka Kawai, Mika Yoshida
14:25	First results of the development of smart non-invasive phenotyping of raspberries using machine learning and 3D imaging	Sarmite Strautina *, Ieva Kalnina, Kaspars Sudars, Janis Judvaitis, Rihards Balas
14:30	Non-invasive 11C-imaging revealed the translocation dynamics of photosynthates into strawberry fruits in response to increasing daylight integrals at leaf surface	Yuta Miyoshi *, Kota Hidaka, Yong-Gen Yin, Nobuo Suzui, Keisuke Kurita, Naoki Kawachi
14:35	Effect of plant density in long-cane blackberry winter production	Pedro N. Brás Oliveira *, Inês Dias Santos, Cristina Moniz Oliveira
14:40	Development of raspberry production and fruit quality in Latvia	Valda Laugale *, Sarmite Strautina, Ieva Kalnina, Inta Krasnova
14:45	Comparative study: Postharvest technologies influences quality indicators and microbiota of organic and conventional grown blueberries	Andreea Stan, Andrei Petre *, Mihai Frîncu, Violeta Ion, Roxana Ciceoi, Madalin Slav, Adrian Asanica

Session P6 - Plant Development
Screen S19.2
Chair - Richard Lothion, La Morinière, France TBC

Room 06

14:00	Diversity of flowering responses and shoot architectures in diploid wild strawberries	Guangxun Fan *, Javier Andrés, Klaus Olbricht, Elli Koskela, Timo Hytönen
14:05	GA signaling and pericarp tissue structure of the large berry mutant of 'Delaware'	Hikaru Ishikawa *, Yasuyuki Togano, Tomoki Shibuya
14:10	Histological characteristics and ultrastructure of anthers and pistils during floral development in strawberry	Meiyan Cui *, Minh Duy Pham, Hyunseung Hwang, Hyein Lee, Byungkwan Lee, Changhoo Chun

14:15	Raspberry florican dieback in Northern Italy: the cane vigor influence and the evaluation of primocane basal defoliation management in double crop system	Nicole Giuggioli *, Cristiana Peano, Luca Brondino
14:20	Effects of postharvest LED- UVC treatment on the quality of grapevine fruits during cold storage	Myeongju Wan *, Chau Thi Thu Nguyen
14:25	Rabbiteye blueberry breeding lines with self-compatibility and parthenocarpy characters	Hao-Cheng Wang, Masafumi Omori, Kuo-Tan Li *
14:30	Small fruit production in France faced with the challenge of the scarcity of synthetic plant protection products	Anne Duval-Chaboussou *
14:35	Relationship between histofoliar alterations and tolerance to <i>Tetranychus urticae</i> Koch in different strawberry cultivars	Diego A. Neira, Claudia F. Funes, Marta E. Arias, Daniel Kirschbaum *
14:40	Comparative analyses of the effects of ethephon, abscisic acid and DNA methylation inhibitor treatment on rabbiteye blueberry 'Tifblue' fruit ripening	Yuning Bao *, Hisayo Yamane, Taishan Li, Ryohei Nakano, Ryutaro Tao
14:45	Air and substrate temperatures in greenhouse and open field on strawberries grown in vertical system	Kaspars Kampuss *, Irina Sivicka
14:50	Exploring the potential of native bacteria for strawberry plants growth promotion	Daniela Sangiorgio, Alice Checcucci, Antonio Cellini, Irene Donati, Francesco Spinelli *

S21: XII INTERNATIONAL SYMPOSIUM ON BANANA : CELEBRATING BANANA ORGANIC PRODUCTION

Symposium supported by :



ORAL PRESENTATIONS

Session 02 - Organic nutrition (plant): experience and new directions
Chair: Thierry Lescot, Cirad, France

Amphitheatre Inca

10:30	Validation of the core algorithms of °AHOra - an app to convert short-term weather data into indicators of banana performance potential - in Dominican Republic	Charles Staver *, Philippe Tixier, Pablo Siles, Arnaldo Tapia, Domingo Rengifo, Gustavo Gandini, William Ipanaque
10:45	The potential of <i>Pleurotus ostreatus</i> for managing key production constraints in organic banana systems: a review	Walter Ocimati *, Evans Were, Anthony Tazuba, Dita Miguel, Guy Blomme
11:00	How to solve the problem of lack of foliar nutrient thresholds for other than conventional production systems?	Luiz Teixeira *, Edson Nomura, Erval Damatto Jr, Eduardo Fuzitani
11:15	Banana-n model: a dynamic model to simulate nitrogen balance in agroecological banana cropping systems	Marie Ruillé *, Elodie Dorey, Marc Dorel
11:30	Using $\delta^{13}C$ of phloem sap as an indicator for short-term changes in leaf carbon isotope discrimination	Mathilde Vantuyghem *, Roel Merckx, Rebecca Hood-Nowotny, Rony Swennen, Maria Heiling, Christian Resch, Gerd Dercon
11:45	Exploring nitrogen use efficiency in <i>Musa</i> spp.	Clara Gambart *, Marlies Vanluchene, Rony Swennen, Sebastien Carpentier
12:00	Optimising combinations of different nutrient sources for organic banana farming with respect to conventional farming	Jeyabaskaran Kandallu Jayaraman *, Pitchaimuthu R, Shiva K.N., Loganathan M, Uma S

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 21

Session 03 - Challenges of pest and disease control without conventional pesticides
Chair: Charles Staver, Universidad Veracruzana, Mexico

Amphitheatre Inca

15:30	Keynote: Challenges of the management of pest and diseases in organic banana production: a holistic and realistic point of view	Luc de Lapeyre de Bellaire *
16:00	Natural beneficial microorganisms for suppression of Fusarium wilt of banana and its promoting for organic production	Sijun Zheng *, Shu Li, Huacai Fan, Ping He
16:15	Containment of TR4 in the context of smallholder production systems in Peru Strengths and limitations of a territorial approach with support of digital mapping	Luud Clercx *, Walle Opendijk van Veen, Mario Cozzarelli, Jaap van der Sluis, Jacob Nieuwenhuis, Diego Balarezo, Rafael Pflücker, Juan Carlos Rojas Llanque
16:30	Impact of Fusarium wilt race 1 on Silk 'Sotoumon' banana cultivars in Benin: Opportunities for organic fertilizers	Anicet Dassou *, Sonia Déguénon, Elvire Sossa, Silvère Tovignan, René Tokannou, Gbèlidji Vodouhè, Claude-Gervais Assogba, Cathérine Akpodji, Delphine Bodjrènou, Martine Zandjanakou-Tachin, Aimé Bokonon-Ganta, Simplicie Vodouhè
16:45	Banana breeding at CIRAD: creating resistant new varieties to avoid the use of pesticides	Fred Salmon *, Frédéric Bakry, Jean-Claude Efile, Sébastien Ricci, Lucile Toniutti, Jean-Pierre Horry
17:00	A machine learning algorithm to predict crown rot in organic bananas	J.W.H. van der Waal *

E-POSTER FLASH PRESENTATIONS

Session P2 - Banana organic production: pest and disease control without conventional pesticides; marketing and standards

Screen S21.1

Chair: Carolina Dawson, Cirad, France

Amphitheatre Inca

14:00	Biosecurity for small growers of local and organic export banana in Peru – seeking synergies with food safety and ecological intensification	Charles Staver *, Ricardo Delgado, Juan Carlos Rojas Llanque, Juan Carlos Rivas Picon
14:05	Prospects for biological control and habitat enhancement to minimize quarantine risks and losses from insect bunch pests in organic export banana	Charles Staver *, Myriam Arias, Cesar Sánchez, Luud Clercx, Marco Oviedo, Lieselot Van der Veken
14:10	Can an improved nutrition with foliar applications of mineral nutrients better help banana plants tackle Black Sigatoka and post-harvest disease development?	Marcus Héry *, Loïc Normand, Thomas Le Moullec-Rieu, Léa Williams, Loïc Monsoreau, Karine Vincent, Emmanuel Husson, Marcus Héry
14:15	Selection of diploid and tetraploid banana hybrids resistant to <i>Pseudocercospora fijiensis</i>	Edson Perito Amorim *, Zalmar Gonçalves, Fernando Haddad, Vanusia Amorim, Claudia Ferreira
14:20	From bags for bunches to corner boards for pallets: recycling banana plastic in Peru	Luud Clercx *, Diego Balarezo, Martin Orlando Carreño Zapata, Rik Voerman
14:25	Implementation of the AWS standard in biodynamic smallholder banana plantations	Laure-Anne Menke *
14:30	Screening of soil-borne microorganisms as potential biological control agent against <i>Fusarium</i> wilt of banana in Eastern DR Congo	Janvier Mugisho *, Espoir Bisimwa Basengere, Anne Legreve

ORAL PRESENTATIONS

Session 03 - Challenges of pest and disease control without conventional pesticides
Chair: Charles Staver, Universidad Veracruzana, Mexico

8:30	Alternative weed management in organic banana agrosystems	Steewy Lakhia *, Marc DOREL, Raphaël ACHARD
8:45	Systemic resistances of banana as a potential tool to control of <i>Fusarium oxysporum</i> f. sp. cubense race 1	Alain Soler *, Jessica Mendoza Rodríguez, Nayanci Portal, Ermis Yanes Paz, Rayza Gonzalez Rodriguez, Monguy Ramon Santos
9:00	Tools for the management of the banana bunchy top disease in small holder systems	Bonaventure Omondi Aman Oduor *, Misheck Soko, Innocent Nduwimana, Alice Simbare, Geoffroy Dato, Celestin Niyongere, Charles Staver, Faride Athindehou
9:15	Soil health research strategies for managing Fusarium wilt of banana in Brazil	Luiz Teixeira *, Edson Nomura, Erval Damatto Jr, Miguel Dita
9:30	On the use of hot water treatment to control postharvest diseases of export grown banana fruit (<i>Musa</i> sp., Group AAA, subgroup Cavendish, cv. Williams)	Simón Uribe-Palacio, Maricruz Ramírez-Sánchez *, Gerardina Umaña-Rojas, Marco Vinicio Sáenz-Murillo

Session 04 - Marketing organic bananas: The role of Sustainable Development Goals (SDGs) on certification and emerging trends

Chair: Hans-Willem van der Waal, Agrofair, Netherlands

9:45	Keynote: The impact of private public certification labels on smallholder holder participation in trade	Marieke de Pena *
10:15	Tailoring Goldfinger for improved market prospects	Katelyn Robertson *, Jeff Daniells
10:30	A paradox : mercantile organic against sustainability in Europe ?	Denis Loeillet *, Thierry Lescot, Carolina Dawson
10:45	Ma\$ Banano: An app to leverage data from smallholder organic export banana for continual improvement	Charles Staver *, Gustavo Mora, Juan Jose Coria, Gerardo Acevedo, Eduardo Guszman, Oscar Eder Flores, Domingo Rengifo, Aura Paulino, Ewddy Perez, Aridio Perez, Juan Carlos Rojas Llanque, Esdwin Nunez, Rosa Elena Corozo, Gema Espinoza, Wuellins Durango, Solanyi Tiselema, Pablo Suarez, Antonio Bustamante, Juan Carlos Torres
11:00	Can stable isotopes separate organic from conventional bananas?	Philippe Tixier *, Denis Loeillet, Mathieu Coulis, Thierry Lescot, Luc de Lapeyre de Bellaire
11:15	Going bananas: From risky businesses to latest authentication technologies	Saskia van Ruth *, Zhijun Wang, Sara Erasmus
11:30	Agronomic and organoleptic performance of organically produced provitamin A rich bananas for introduction into farming and diet systems of Burundi and Democratic Republic of Congo	Beatrice Ekesa *, Alice Simbare, Muller Kamira, Charles Svirithauma, Mpoki Shimwela, Deborah Nabuuma

*Indicates presenting author

TUESDAY 16 AUGUST

S23 INTERNATIONAL SYMPOSIUM ON POSTHARVEST TECHNOLOGIES TO REDUCE FOOD LOSSES

ORAL PRESENTATIONS

Session 03 - Biotechnology and Omics for postharvest management
Chair: Carmen Ziv, ARO, Israel

Amphitheatre Pocquet

10:30	Keynote: Recent omics advances in postharvest	Christian Chervin *
11:00	Effects of Bee Pollination and 1-MCP Treatment on Postharvest Quality and Gene Expression in Tomato and Strawberry Fruits	Byung-Chun In *, Yong-Tae Kim, Suong Tuyet Thi Ha, Jong hwa Shin
11:15	Effect of growing season on ethylene biosynthesis pathway during fruit ripening and post-harvest storage	Maarten Hertog *, Minh Viet Thao Nguyen, Thi Dinh Tran, Bart Nicolai
11:30	Spatio-temporal metabolomics of imazalil postharvest treatment in Fukumoto Navel and Clementine Mandarin	Gurreet Brar *, Keeton Montgomery, VV Krishnan
11:45	Effects of rapid postharvest cooling treatments of olives on oil quality parameter	Mario Vendrell Calatayud *, Stefano Brizzolara, Pietro Tonutti
12:00	Metabolic changes in pomegranate fruit skin following cold storage promotes chilling injury of the peel	Idit Ginzberg *
12:15	Early detection of apple fungal spoilage: Application of flavoromics	Amina Benchenouf *, Karimi Solomon, Maarten Hertog, Bart Nicolai

Session 04 - Modeling and non-destructive tools
Chair: Maria Del Carmen Alamar Gavidia, Cranfield University, UK

Amphitheatre Pocquet

15:30	Mango shelf-life modelling	Yiru Chen *, Daryl Joyce, Neil White, Philippa Bryant, Aljay Valida, Hung Duong, Andrew Macnish, Lawrence Smith
15:45	Machine learning for the molecular evaluation of fresh produce quality	Tie Liu *
16:00	Use of hyperspectral images and a chlorophyll-related index (Cri) as a non-destructive tool to sort Granny Smith apples according to sun-related disorders postharvest	Rene Mogollon *, Carolina Torres, David Rudell
16:15	Towards smarter storage of table grapes by accounting for the initial quality and the conditions during storage	Amnon Lichter *, Abiola Owoyemi, Or Lapidot, Bettina Kochanek, Ron Porat, Yotam Givati, Matan Lindenbaum, Yael Salzer, Noam Koenigstein
16:30	A Computer vision system to estimate flesh colouration in red kiwifruit	Gianmarco Bortolotti *, Niccolò Raule, Letizia Manzoni, Mirko Piani, Luca Corelli Grappadelli, Francesco Spinelli, Luigi Manfrini
16:45	Ethylene concentration modelling inside tomato packages with a commercial ethylene scavenger	Namrata Pathak *, Phil Rosenow, Mareike Bey, Matthias Reinelt, Pramod Mahajan

E-POSTER FLASH PRESENTATIONS

Session P6 - Quality and postharvest management (1)
Screen S23.1
Chair: Florence Charles, Avignon University, France

Amphitheatre Pocquet

14:00	Thermonebulization of fungicides to reduce losses due to postharvest diseases in apple	Achour Amiri *
14:05	Ethyl formate: using hydrazone precursors as insecticides and anti-microbial agents	Khaya Gould *, Renate Smit, Shelley Johnson, Willem van Otterlo, Albert van Reenen, Matthew Addison, Marehette Liprini
14:10	Determination of pesticide residues in open field grown tomato harvested from specific locations in Kenya	Willis Owino *, Winnie Nyonje
14:15	Antioxidant and antibacterial activities of date palm fruit (<i>Phoenix dactylifera</i> L.) in response to postharvest natural elicitors	Navjot Kaur, Durray Shahwar, Zienab Ahmed *
14:20	Superficial scald induction in 'Granny Smith' apples subjected to different storage practices	Monja Gerber *, Thirupathi Karuppanapandian, Daniel Viljoen, Anel Botes, Ian Crouch, Elke Crouch
14:25	Extra low oxygen ' low ethylene storage to control senescent scald on apple	Claude Coureau *
14:30	Characterization of browning during CO2 deastringency treatment in astringent persimmon fruit	Weijuan Han *, Kun Cao, Songfeng Diao, Peng Sun, Huawei Li, Yini Mai, Yujing Suo, Jianmin Fu
14:35	Identifying the optimum postharvest storage and handling conditions for maintaining sweetpotato slip quality	Tricia Jenkins *, Joseph Rundquist, Cary L. Rivard, Jason Griffin, Eleni D. Pliakoni

Session P7 - Quality and postharvest management (2)
Screen S23.2
Chair: Giuseppe Sortino, University of Palermo, Italia

Amphitheatre Pocquet

14:00	Quantification of ethanol and acetaldehyde in cambucis: development of prediction models by near infrared spectroscopy	Poliana C Spricigo *, Karla R Borba, Angelo P Jacomino, Luiz A Colnago
14:05	Estimation of the vulnerability of peach fruits against shock under different storage temperatures as the result of firmness change	Nobutaka Nakamura, Yuma Sasaki, Drupadi Ciptaningtyas, Tomoko Kaneta, Eriko Yasunaga, Takahiro Tezuka, Takashi Watanabe, Masayasu Nagata, Takeo Shiina *
14:10	Quality of native Brazilian fruit from the Myrtaceae family	Poliana C Spricigo, Horst B Neto, Isabela B Taver, Bárbara D Antonia, Fernanda F Pazin, Tainá B Nascimento, Angelo Pedro Jacomino *
14:15	Fruit quality and surface pitting resistant of sweet cherry genotypes stored in modified atmosphere	Pavol Suran *, Terezie Vojtova
14:20	Fruit firmness in sweet cherries: discrepancy between instrumental measurements and sensory evaluations	Rene Mogollon *, Carolina Torres, Per McCord
14:25	Color and sensory changes in fresh cut pear during storage comparing two cvs 'Coscia' and 'Butirra', cultivated in South Italy	Alessio Allegra *, Giuseppe Sortino, Paolo Inglese, Vittorio Farina, Gregorio Gullo, Eugenia Guccione
14:30	Fruit maturity and vapour heat treatment influence flesh cavity with white patches disorder in Calypso mango	Amit Khanal *, Daryl Clifford Joyce, Muhammad Asad Ullah, Donald E Irving, Andrew J Macnish, Priya Joyce, Neil A White, Richard I Webb

*Indicates presenting author

TUESDAY 16 AUGUST

SYMPOSIUM 23

Session P8 - Food Losses

Screen S23.3

Chair: Rachel Wood, Competence Centre For Fruit Growing Lake Constance, Germany & Carol Wagstaff, University of Reading, UK

Room 3

14:00	Simple cold chain for smallholder horticultural farmers: case study of mango fruit in Kenya	Emmanuel Amwoka, Jane Ambuko Lukhachi *, Margaret Hutchinson, Willis Owino
14:05	Industry partnerships drive food safety research for fresh produce in Australia and New Zealand	Robyn McConchie *, Tina Bell, Hayriye Bozkurt, Dee Carter, Elizabeth Frankish, Agam Nangul, Joanna Rothwell, Hongshan Shang, Dao Tran, Emily White, Ingrid Zamora
14:10	Ripening cv. 'Honey Gold™' mango in-transit from farm to market	Khamla Mott *, Hung Duong, Daryl Joyce, Peter Hofman, Andrew Macnish, Bhesh Bhandari, Allan Lisle
14:15	Life Cycle Assessment of baby leaf spinach: Reduction of waste through interventions in growing treatments and packaging	Haodong Lin *, Mairi J. Black, Lael Walsh, Francesco S. Giordan, Aiduan Borrion
14:20	Simulating in-transit ripening of cv. 'Honey Gold™' mango fruit to predict quality outcomes	Khamla Mott *, Allan Lisle, Daryl Joyce, Peter Hofman, Andrew Macnish, Bhesh Bhandari, Robyn Cave
14:25	Physico-chemical and postharvest quality characteristics of Intra and Interspecific grafted tomato fruits	Willis Owino *, Dianah Walubengo, Irene Orina, Yasutaka Kubo
14:30	Postharvest strategies used by small holder farmers in minimizing banana losses in Central Africa	Emmanuel Odiaka *, Kelvin Nkwain
14:35	Prediction of macadamia shelf-life and factors affecting long-term storage	Mark Penter *

Session P9 - Non destructive tools

Screen S23.1

Chair: Rene Mogolloni, Washintong State University, United States of America

Room 4

17:10	Nondestructive measurement of fruit density to optimize fruit quality for consumers and to manage storage and ripening conditions	Sébastien Lurol *, Alexis Ronjon, Fabrice Bulver
17:15	Machine vision to reduce fruit and nut loss	Shahla Bai *, Michael Farrar, Helen M Wallace
17:20	Using fractal image analysis for mechanical damage assessment in banana fruit	Mai Al-Dairi *, Pankaj B. Pathare, Rashid Al-Yahyai
17:25	Sorting of mangoes by a non-destructive method of density measurement, a predictive indicator of sensory quality	Christophe Bugaud *, Sivmey Hor, Jacques Joas, Mathieu Léchaudel

Session P10 - Modeling & Omics

Screen S23.2

Chair: Mathieu Lechaudel, CIRAD Guadeloupe, France & Pietro Tonutti, Scuola Superiore Sant'Anna Pisa, Italy

Amphitheatre Pocquet

17:10	Simple quality prediction measurements for stored onions	Isabella Kleman *, Anna Karin Rosberg, Paul Becher, Oleksiy Guzha, Lars Mogren
17:15	Fruit maturity detection in apples and pears: a convolutional neural network approach	Alessandro Bonora, Gianmarco Bortolotti, Kushtrim Bresilla, Ines Ebner, Angelo Zanella, Luca Corelli Grappadelli, Luigi Manfrini *
17:20	ABA and ABA Core Signaling Factor Interactions are Involved in Ripening of <i>Capsicum annum</i> Fruit	Kyeonglim Min *, Eun Jin Lee
17:25	Transcriptomic response of lettuce (<i>Lactuca Sativa</i> L.) leaves to a postharvest intermittent-light treatment during storage	Florence Charles, Cedric Dresch, Thomas Baron *, Julie Ripoll, Veronique Vidal, Sandrine Laurent, Claire Bourlieu, Nathalie Barouh, Pierre Villeneuve, Christian Chervin, Huguette Sallanon

S25: INTERNATIONAL SYMPOSIUM ON MEDICINAL AND AROMATIC PLANTS: DOMESTICATION, BREEDING, CULTIVATION AND NEW PERSPECTIVES

ORAL PRESENTATIONS

Session O3 - Quality and value chains

Chair: Bastien Christ, Agroscope, Switzerland

Amphitheatre Amande

10:30	Growing artichokes (<i>Cynara cardunculus</i>) in Austria – implications on quality and nutritional value of buds and leaves depending on variety and species	Anna J. Keutgen *, Dilâra Belkis ubuk, Norbert Keutgen
10:45	Mass-spectrometric determination of phyllobilins in leaves of medicinal plants and their application forms	Lisa Marie Gorfer *, Valentina Grigoletto, Manuel Pramsohler, Peter Robatscher, Michael Oberhuber
11:00	Chemical and sensory evaluation of three lavender essential oils according to their origin and production mode	Daniel Kalnin *, Daniel Kalnin, Ludovic Andres
11:15	Formulation and application of clove essential oil-based nanoemulsion against on <i>Ruellia tuberosa</i> L	Naphat Somala *, Chamroon Laosinwattana, Jantra Dimak, Montinee Teerarak
11:30	Total phenols, flavonoids, proanthocyanidin and antioxidant potential of <i>Justicia secunda</i> Vahl	Muhali Jimoh *, Mahboob Adekile Jimoh, Olalekan Olanre Bakare, Samuel Oluwatob Bamigboye, Comfort Titilay Senjobi, Avela Sogoni, Kunle Okaiyeto, Learnmore Kambizi, Charles Petrus Laubscher
11:45	Agricultural bioproducts from African medicinal and aromatic plants	Musa Kisiriko *, Maria Anastasiadi, Leon Terry, Mansour Sobeh, Mike Beale, Jane Ward
12:00	Regulation of secondary metabolites of basil (<i>Ocimum basilicum</i> L.) by the application of elicitors in vivo	Wafae Kandoudi *, Éva Zámboriné Németh

Session O4 - New perspectives for cultivation I

Chair: Christoph Carlen, Agroscope, Switzerland

Amphitheatre Amande

15:30	Growing medicinal plant <i>Artemisia</i> in vertical farming under different LED light conditions	Martina Carlessi *, Benjamin Franchetti, Aurora Venco, Fabio Pietrolucci, Carolina Ramos, Stefano Negri, Simone Trunzo, Marco Chioldelli Palazzoli, Linda Avesani, Flavia Guzzo
15:45	<i>Lavandula latifolia</i> Medik grown under Led emitting diode light technology. An initial approach	Maria J. Jordán, Gustavo Javier Cáceres-Cevallos *, Cristina Martínez-Conesa, María Quílez-Simón, Pascual Romero-Espinar, Inmaculada García-Aledo
16:00	Light supplementation on <i>Cannabis sativa</i> greenhouses: what is the reality?	Verónica Codesido Sampedro *, Laura Agui, José Luis Valencia Castellano, Julio Sánchez Ramírez, Antonio Sancho
16:15	Impact of increasing light intensity on plant growth, floral yield and secondary metabolites of medicinal <i>Cannabis</i>	Wannida Sae-Tang *, Kjell Sneeuw, Mexx Holweg, Céline C.S. Nicole, Sabrina Carvalho, Iris F. Kappers, Ep Heuvelink, Leo F.M. Marcelis
16:30	Far-red and UV-B independently affect plant growth, morphology and secondary metabolism in <i>Artemisia annua</i>	Ningyi Zhang *, Haohong Yang, Hyoung Seok Kim, Leo Marcelis
16:45	Essential oil content and physiological response of <i>Mentha</i> genotypes under different UV-treatments	Charlotte Hubert *, Guido Steyns, Thorsten Kraska, Katharina Luhmer, Marcel Dieter Moll, Ralf Pude

*Indicates presenting author

E-POSTER FLASH PRESENTATIONS

Session P3 - Quality and value chains
Screen S25.1

Chair: Bastien Christ, Agroscope, Switzerland

Room 307

14:00	Volatile compounds and aroma evaluation in flower extracts of <i>Rosa × odorata</i>	Lijun Zhou *, Chao Yu, Qixiang Zhang
14:05	Preliminary study of encapsulation in silk fibroin nanoparticles of phenolic compounds from <i>Salvia lavandulifolia</i> Vahl. distillation residues	Antonio Abel Lozano-Pérez, Gustavo Javier Cáceres-Cevallos, Cristina Martínez-Conesa, María Quílez Simón, Cliona Power, Jose Luis Cenis, María J. Jordán *
14:10	Production of essential oils from different species in two localities of Aragón, Spain	Juliana Navarro Rocha *, David Gimeno, Azucena Gonzalez-Coloma
14:15	Effect of peppermint essential oil fumigation seed quality of green soybean cultivar KPS292 after storage	Montinee Teerarak, Nipaporn Yonsawad *
14:20	Potential of Peppermint Essential Oil to Extend Vase Life of Cut <i>Dendrobium</i> Orchids 'White Sanan'	Montinee Teerarak *, Kanjana Saetiew, Chamroon Laosinwattana
14:25	The effect of auxins on root production and some stemona alkaloids accumulation in roots of <i>Stemona curtisii</i> Hook. f. in vitro	Nattaya Montri *, Anjana Junpatiw Ahuja
14:30	Effects of leaf age and different drying methods on total phenolic content and total acid concentration in <i>Melaleuca cajuputi</i> powell tea	Nattaya Montri *, Sasidara Charoensiri
14:35	Citronellol biosynthesis in <i>Pelargonium</i> species: a new enzyme from the P5BR subfamily controls the biosynthetic pathway and the ratio of (S) and (R) citronellol isomers	Sylvie Baudino, Laure Martinelli *, Aurélie Rius-Bony, Bernard Blerot, Giorgia Chiereta, Jean-Louis Magnard, Frédéric Jullien, Denis Saint-Marcoux
14:40	Testing botanicals in human or animal health and welfare: objective assessment of the available literature is a key element for successful studies	Annabelle Bergoend *, Denis Bellenot
14:45	Medical <i>cannabis</i> use in women	Paula Andrea Uribe Benavides *, Valentina Carvajal
14:50	<i>Origanum vulgare</i> essential oil as growth promoter in Ross Broiler. In vitro vs. in vivo antimicrobial activity	Cristina Martínez Conesa, Gustavo Javier Cáceres-Cevallos, Pedro Sánchez-Gómez, Inmaculada García Aledo, María Quílez Simón, Pascual Romero Espinar, María Jose Jordán Bueso *
14:55	Relevance of <i>Thymus mastichina</i> L. essential oil chemotype on the antimicrobial activity against opportunistic pathogens	Cristina Martínez Conesa, Gustavo Javier Cáceres-Cevallos*, Pedro Sánchez-Gómez, Inmaculada García Aledo, María Quílez Simón, Pascual Romero Espinar, María Jose Jordán Bueso
15:00	The effect of phenological stages, pruning and harvesting time on vegetative growth (biomass yield) and antibacterial activity of <i>Leucosidea sericea</i>	Babalwa Matsiliza-Mlathi *, Maboka Mabusela, Riana Kleynhans, Hintsá Araya

WORKSHOPS

W06 : IN VITRO TECHNOLOGY : A MARGINAL OR A KEY TOOL TO IMPLEMENT BREEDING AND CONSERVATION STRATEGIES

Moderator : Jorge Canhoto, Coimbra University, Portugal

Atrium 3

W15: HOW TO ADAPT INNOVATIVE TECHNOLOGIES AND DEVELOP RESILIENT HORTICULTURAL SYSTEMS FOR SMALL-SCALE FARMERS?

Moderators : Melvin Medina, FAO-NSP, Italy ; Rémi Kahane, Cirad, France

Panoramic Room

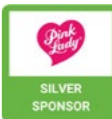
W17: HOW ARE PLANT VARIETY RIGHTS CONTRIBUTING TO GROWTH AND SUSTAINABILITY ?

Workshop organized by  CPVO · OCVV

Moderators : Orsola Lamberti & Jens Wegner, Community Plant Variety Office (CPVO), France

Grand Angle Room A

W18 : WHAT INNOVATIVE TECHNICAL AND TECHNOLOGICAL APPROACHES DEVELOPED BY RESEARCHERS FOR THE APPLE ORCHARDS OF THE FUTURE?

Workshop organized by  SILVER SPONSOR

Moderators : Claude Coureau & Christian Andergassen & Julie Ruch, Pink Lady, Australia

Amphitheatre Jardin

BUSINESS MEETINGS

- BM05: ISHS BUSINESS MEETING COMMISSION AGROECOLOGY AND ORGANIC FARMING SYSTEMS - *Atrium 2*
- BM06: ISHS BUSINESS MEETING DIVISION HORTICULTURE FOR HUMAN HEALTH - *Grand Angle Room B*
- BM07: ISHS BUSINESS MEETING DIVISION PLANT GENETIC RESOURCES AND BIOTECHNOLOGY - *Mercurie Room*
- BM08: ISHS BUSINESS MEETING DIVISION TEMPERATE TREE FRUITS DIVISION & DIVISION TEMPERATE TREE NUTS - *Giffard Room*
- BM09: ISHS BUSINESS MEETING DIVISION PHYSIOLOGY AND PLANT-ENVIRONMENT INTERACTIONS - *Open Garden Room*
- BM10: ISHS BUSINESS MEETING DIVISION ORNAMENTAL PLANTS - *Cointreau Room*

SOCIAL EVENT

SOCIAL EVENT WINE AND TASTING

07:30 - 09:30

After Chenin, offered by Federation Viticole Anjou Saumur & Chenin Blanc Association SA (in partenariat with Destination Angers)



*Indicates presenting author

WEDNESDAY 17 AUGUST

S1: INTERNATIONAL SYMPOSIUM ON BREEDING AND EFFECTIVE USE OF BIOTECHNOLOGY AND MOLECULAR TOOLS IN HORTICULTURAL CROPS

Symposium supported by :



ORAL PRESENTATIONS

Session 05 - Breeding and markers in horticultural crops (1)
Chair: Vincent Bus, Plant & Food Research, New Zealand

Amphitheatre Jardin - Screen 1

8:30	Keynote : Innovations in organic plant breeding with focus of vegetables and fruits	Monika Messmer *
9:15	Multi-trait selection methods for genetic improvement of horticultural crops	Stephane Kern *, Craig Hardner, Bruce Topp, Bruno Santos
9:30	Routine development of marker-assisted breeding (MAB) on apple and pear and new approaches for QTLs and major gene genotyping involved in disease resistance	Aurélien Petiteau *, Caroline Denance, Charles-Eric Durel, Hélène Muranty, François Lebreton, Bernard Petit, François Laurens
9:45	De novo assembly of <i>Citrus limon</i> and target-sequence genotyping towards the detection of genes involved in tolerance to 'mal secco' disease	Mario Di Guardo *, Marco Moretto, Mirko Moser, Chiara Catalano, Michela Troggio, Ziniu Deng, Alessandro Cestaro, Marco Caruso, Gaetano Distefano, Riccardo Russo, Silvia di Silvestro, Carmen Arlotta, Donata Pietro Paolo, Giuseppe Russo, Stefano La Malfa, Luca Bianco, Alessandra Gentile

Session 06 - From metabolites and genes to phenotypes
Chairs: Ryo Fujimoto, Kobe University, Japan and Saurabh Singh, ICAR-IARI, India

Amphitheatre Jardin - Screen 1

10:30	Molecular strategies for prickly pear (<i>Opuntia</i> sp) study and its improvement	Andres Cruz-Hernandez *, Sergio Guerrero-Garibay, Fernando Olvera-Martínez, Daira Aceves-Monreal, Pedro Luis Lopez de Alba
10:45	The role of salicylic acid responsive genes in disease resistance in <i>Brassica rapa</i> vegetables	Ryo Fujimoto *, Naomi Miyaji, Mst Arjina Akter, Motoki Shimizu, Takeshi Takasaki-Yasuda, Elizabeth Dennis
11:00	Deciphering the role of three specific flavonoids produced by carrot as potential breeding markers for resistance against <i>Alternaria dauci</i>	Marie-Louisa Ramarosan *, Jean-Jacques Helesbeux, Latifa Hamama, Laurent Ogé, Dimitri Breard, Sébastien Huet, Anita Suel, Philippe Hugueney, Raymonde Baltenweck, Patricia Claudel, Valérie Le Clerc, Mathilde Briard
11:15	Inheritance of purple colour and flavonoid profiling in F2 populations of tropical carrot (<i>Daucus carota</i> L.)	Pritam Kalia *, Selvakumar Raman
11:30	Regulation of flowering in mango - a molecular perspective	Bal Krishna *, Sayali N Vyavahare, Sumersing I Patil, Prafullachandra Sane
11:45	The role of histone modification in gene expression in <i>Brassica rapa</i> vegetables	Saaya Shiraki *, Hasan Mehraj, Satoshi Takahashi, Ayasha Akter, Naomi Miyaji, Motoaki Seki, Elizabeth S Dennis, Ryo Fujimoto
12:00	Resistance to <i>Neonectria ditissima</i> in apple: insights from metabolomics and lipidomic analyses	Larisa Gustavsson *, Firuz Odilbekov, Jonas Skytte af Sättra, Ilka Abreu, Annika Johansson, Tetyana Zhebentyayeva, Eric van de Weg
12:15	Organelle genome-based markers in deciphering mitonuclear conflict displaying floral malformations and distinguishing cytoplasm types in snowball cauliflower	Saurabh Singh *, Shyam Sundar Dey, Reeta Bhatia, Raj Kumar

S2: INTERNATIONAL SYMPOSIUM ON CONSERVATION AND SUSTAINABLE USE OF HORTICULTURAL GENETIC RESOURCES

ORAL PRESENTATIONS

Session 03 - Securing horticultural genetic resources and wild edible plants in situ and in complementary ex situ programs

Chair: Tiziana Ulian, Royal Botanic Gardens, Kew, U.K.

Grand Angle Room A - Screen1

8:30	Keynote: The role of horticultural genetic diversity conservation and use in the context of global food systems Keynote:	Paula Bramel *
9:00	Where and how to collect wild banana genetic resources	Simon Kallow, Arne Mertens, Filip Vandeloock, Steven Janssens, Bart Panis *
9:15	Conservation of dragon fruit genetic resources using seeds as well as clonal material	Hannes Wilms *, Natalia Fanega Slezziak, Jacob Merckx, Nils De Laet, Bart Panis
9:30	Pepper core collection analysis and genome resequence reveals the evens in domestication	Yacong Cao, Kang Zhang, Hong Zhao, Hailong Yu, Donghui Xu, Shumin Chen, Zhenghai Zhang, Véronique Lefebvre, Paul Bosland, Ilan Paran, Giovanni Giuliano, Feng Cheng, Lihao Wang *
9:45	Genetic diversity in Mediterranean Brassica vegetables: seed phenotyping could be useful for sustainable crop production	Marie-Hélène Wagner *, Fella Aïssiou, Franz-Werner Badeck, Gwenaëlle Deniot, Sylvie Ducournau, Audrey Dupont, Cyril Falentin, Laurène Gay, Anna Geraci, Pascal Glory, Houria Hadj-Arab, Jose Antonio Jarillo, Vladimir Meglic, Caterina Morcia, Elisabetta Oddo, Mónica Pernas, Manuel Pineiro, Barbara Pipan, Vincent Richer, Rosario Schicchi, Lovro Sinkovic, Valeria Terzi, Anne-Marie Chèvre

Session 03 - Securing horticultural genetic resources and wild edible plants in situ and in complementary ex situ programs

Chair: Tiziana Ulian, Royal Botanic Gardens, Kew, U.K.

Grand Angle Room A - Screen1

10:30	Conservation of apple genetic diversity stock in Kazakhstan as a basis for environmental protection and economic growth	Allison Brown *, Marina V. Urazayeva, Saule Zh. Kazybayeva, Yuliya M. Yefremova
10:45	Problems and prospects of establishing field genebank for CWR's in <i>Musa</i> – a long experience	Subbaraya Uma Binit *, Saraswathi Marimuthu Somasundaram, Backiyarani Suthanthiram, Durai Palani, Kalpana Sathiamoorthy, Saranya Swaminathan
11:00	French national coordination for conservation of plant genetic resources and their wild relatives: focus on horticultural species	Charles Henry Duval *, Audrey Didier, Marc Delêtre, Mariem Omrani, Bernice van Issum-Groyer, Virginie Bertoux, Fabien Masson
11:15	Exploiting the Swiss Apple Core Collection for breeding tomorrow's apple cultivars	Giovanni Brogginini *, Kellerhals Markus, Bruno Studer
11:30	<i>Malus</i> germplasm in Germany: collection, conservation and evaluation	Monika Höfer *, Stefanie Reim, Andreas Peil, Thomas Wöhner, Henryk Flachowsky

Session 04 - Characterization and evaluation of horticultural germplasm for sustainable production in support of the Sustainable Development Goals

Chair: Bart Panis, Bioversity International & KU Leuven, Belgium

Grand Angle Room A - Screen1

11:45	Characterization of autumn senescence in the Swedish Central collection of heritage apple cultivars	Jonas Skytte af Sättra *, Inger Hjalmarsson, Pär Ingvarsson, Larisa Garkava-Gustavsson
12:00	Genetic diversity of African nightshade (<i>Solanum nigrum</i> L.) complex grown in Kenya using SSR markers	Rose Onamu *, Leonard Wamocho, Solomon Shibairo, Jenepher Mafuta

*Indicates presenting author

WEDNESDAY 17 AUGUST

S5: INTERNATIONAL SYMPOSIUM ON INNOVATIONS IN ORNAMENTALS: FROM BREEDING TO MARKET

ORAL PRESENTATIONS

Session 01 - Flower physiology, Post-harvests
Chair: Fisun Çelikel, OMU, Turkey

Atrium 3 - Screen 1

8:30	Keynote: Rose vase life and how the physiological and genetic approaches on vase life can help breeders and producers	Yunhe Jiang, Xiaoming Sun, Xiaofeng Zhou, Yanjie Xu, Chao Ma, Nan Ma, Bo Hong, Junping Gao *
9:00	Optimization of packaging for transport and storage of ornamental young plants - Model selection for oxygen consumption rates	Lieven Van de Vondel *, An Vermeulen, Annelies Christiaens, Marie-Christine Van Labeke, Peter Ragaert, Frank Devlieghere
9:15	Towards sustainable postharvest technologies	Fisun Çelikel, Ernst Woltering *
9:30	Modified atmosphere storage of cut peony flowers to extend the sales period	Annelies Christiaens *, Liesbet Blindeman, Lieven Van de Vondel, Peter Ragaert, Frank Devlieghere, Bruno Gobin, Marie-Christine Van Labeke
9:45	Detection and prediction of <i>Botrytis cinerea</i> incidence and vase life of cut roses using thermal imaging and neural network techniques	Byung-Chun In *, Yong-Tae Kim, Gyeong-Rok Yang, Suong Tuyet Thi Ha

Session 02 - Production, response to abiotic and biotic stresses
Chair: Traud Winkelmann, Leibniz Universitaet Hannover, Germany

Atrium 3 - Screen 1

10:30	Keynote: Innovation and sustainability in South American floriculture	Marta Pizano *
11:00	Histological and transcriptomic characterization of a partial resistance in the rose- <i>Diplocarpon rosae</i> interaction	Diana Carolina Lopez Arias, Sophie Paillard, Laurence Hibrand-Saint Oyant, Thomas Debener, Marcus Linde, Aurélie Rolland, Fabienne Simonneau, Fabrice Foucher, Vanessa Soufflet-Freslon *
11:15	Understanding impatiens susceptibility and resistance to downy mildew caused by <i>Plasmopara destructor</i>	Zhanao Deng *, Ze Peng, Yanhong He, Saroj Parajuli, Qian You, Weining Wang, Krishna Bhattarai, Aaron Palmateer
11:30	Facing the dynamic environment: a systemic perspective on the physiology of leafy cuttings	Uwe Druege *
11:45	Anatomical study of union formation in T-budded <i>Rosa gallica</i> 'Duchesse d'Angoulême' and ground cover rose 'Mercury' on selected rootstocks	Marta Joanna Monder *, Przemyslaw Babelewski
12:00	Evaluation of salinity-stress assays in wild Japanese <i>Hydrangea</i>	Hayato Morimoto *, Harada Senjiro, Haruna Saito, Syogo Syukuya, Maho Fujii, Sho Yamamoto, Takashi Handa
12:15	Dehydrins and carbohydrate metabolism associated with cold hardiness of garden roses under natural and controlled conditions	Lin Ouyang *, Leen Leus, Ellen De Keyser, Marie-Christine Van Labeke

S6: INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES AND PRODUCTION STRATEGIES FOR SUSTAINABLE CONTROLLED ENVIRONMENT HORTICULTURE

Symposium supported by :



ORAL PRESENTATIONS

Session 04 - Glass, plastics, films vs light spectrum
Chair: Graeme Smith, Graeme Smith Consulting, Australia

Auditorium - Screen 1

8:30	Keynote: Opportunities and challenges with advanced greenhouse glazing materials	Eric Stallknecht, Erik Runkle *
9:00	Are smart glasses with switchable optical properties the future greenhouse covers for high value crops?	Nieves Garcia Victoria *, Silke Hemming, Cecilia Stanghellini, Esteban Baeza Romero
9:15	Enhancing light use efficiency and tomato fruit yield with quantum dot films to modify the light spectrum.	Michael Blum *, Charles Parrish, Damon Hebert, Taylor Moot, Daniel Houck, Nikolay Makarov, Karthik Ramasamy, Hunter McDaniel, Gene Giacomelli, Matt Bergren
9:30	Plant performance of horticultural crops in diffuse light environments.	David Vuillermet *, Alexandre Burlet, Oscar Stapel
9:45	Shading and microclimate effects on tomato yield and quality in dynamic agrivoltaic plastic greenhouse.	Noé Savalle-Gloire *, Gilles Vercambre, Jérôme Chopard, Rémi Blanchard-Gros, José Catala, Damien Fumey, Hélène Gautier

Session 05 - Sustainability in controlled environment
Chair: Chris Blok, Wageningen University & Research, The Netherlands

Auditorium - Screen 1

10:30	Keynote: The two sides of the coin: sustainability and controlled environment horticulture	Beatrix Waechter Alsanus *, Sammar Khalil, Maria E. Karlsson, Maria Hellström, Anna Karin Rosberg
11:00	Sustainability of greenhouse tomato production systems assessed through the lens of the sustainable development goals (SDGs).	Dianfan Zhou, Holger Meinke, Matthew Wilson, Leo F.M. Marcelis, Ep Heuvelink *
11:15	Horticultural Additives influence soil biogeochemistry and increase Greenhouse gas emissions from peat.	Bidhya Sharma *, Nigel Roulet, Tim Moore
11:30	Environmental performance of two ornamental crops from commercial greenhouses in Greece.	Vasileios Anestis, Leonidas Andris, Thomas Bartzanas *
11:45	Protein plant factories: producing and steering soybean protein content in indoor farming.	Isabella Righini *, Mark van Hoogdalem, Luuk Graamans, Caterina Carpineti, Esther Meinen, Daan van Munnen, Selwin Hageraats, Rick de Jong, Shuna Wang, Anne Elings, Cecilia Stanghellini
12:00	Vertical farms - The missing pieces.	Graeme Smith *, John Norwood

*Indicates presenting author

WEDNESDAY 17 AUGUST

S7: II INTERNATIONAL SYMPOSIUM ON GREENER CITIES: IMPROVING ECOSYSTEM SERVICES IN A CLIMATE-CHANGING WORLD (GREENCITIES2022)

ORAL PRESENTATIONS

Session 03 - Ecosystem services and multi-functionality in Green Cities Cointreau Room - Screen 1
Chair: Laure Vidal-beaudet, Institut Agro EPHor, France

8:30	Keynote: The ornamental horticulture industry connects knowledge to practice for greener and sustainable cities	Audrey Timm *
9:15	Cultivating urban habitats, a human species recovery action plan needs more than food and medicinal plant diversity to survive	Alistair Griffiths *, Lauriane Chalmin-Pui, Ross Cameron
9:30	Climatic benefits of street trees on the microclimate and thermal comfort: an in-situ experiment in Paris	Julien Thierry *, Sophie Herpin, Fabrice Rodriguez, Mathilde Renard, Marie Gantois, Pierre-Emmanuel Bournet
9:45	Provision of ecosystem services by garden trees	Elisabeth Larsen *, Tijana Blanusa, Rachael Tanner, Paul McAleer, Andrew D. Hiron, Mark Gush

Session 03 - Ecosystem services and multi-functionality in Green Cities Cointreau Room - Screen 1
Chair: Laure Vidal-beaudet, Institut Agro EPHor, France

10:30	Impacts of the urban environment on well-watered tree development and tree climatic services	Sabine Demotes-Mainard *, Sophie Herpin, Agathe Boukouya, Souleymane Mballo, Bénédicte Dubuc, Lydie Ledroit, Camille Lebras, Dominique Lemesle, Pierre-Emmanuel Bournet
10:45	Shading effect of trees reduces CO2 but not CH4 and N2O fluxes in urban lawns	Tom Kunemann *, Patrice Cannavo, René Guéron, Vincent Guérin

Session 04 - Ecosystem services and new ways to Greener Cities Cointreau Room - Screen 1
Chair: Luis Pérez Urrestarazu, Universidad de Sevilla, Spain

11:00	Human and technological dimensions of efficient water use in water limited urban environments	Rolston St Hilaire *
11:15	Green roofs and climate change mitigation: Development of an adaptive and sensor-based water management for extensive green roofs	Dieter Lohr *, Heinz-Josef Schmitz, Ralf Walker, Elke Meinken
11:30	Desealing soils : an in-situ experimental device	Claire Vieillard *, Robin Dagois, Laure Vidal-Beaudet, Stéphanie Ouvrard
11:45	A citizen science tool for understanding soil ecological functioning in urban areas	Robin Dagois *, Sandra Barantal, Apolline Auclerc, Anne Dozières, Romain Julliard, Laure Turcati, Alan Vergnes
12:00	An innovative sampling strategy to assess urban soil biodiversity	Laure Vidal-beaudet *, Christophe Schwartz, Apolline Auclerc, Sandra Barantal, Jérôme Cortet, Anne Dozières, Jean-Christophe Lata, Pierre-Alain Maron, Laure Turcati, Alan Vergnes
12:15	Housing humanity at the dawn of the 22nd century : living trees as a part of living buildings ?	Philippe Faucon *, Arnaud Fertet, Christophe Montil, Agathe Bombail

S9: INTERNATIONAL SYMPOSIUM ON URBAN HORTICULTURE FOR SUSTAINABLE FOOD SECURITY (URBANFOOD2022)

ORAL PRESENTATIONS

8:30	Opening introduction by conveners (introduction of topics and where participants come from	Kathrin Specht *, Kevin Morel *
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Session 01 - Integration of urban horticulture into market, education and policy Giffard Room - Screen 1

Chair: Runrid Fox Kämper, ILS, Germany

8:45	Keynote: the role of urban and periurban agriculture to build food secure cities and resilient food systems.	Guido Santini *
9:15	Addressing urban food security through agriculture career awareness	Timothy McDermott *, Carol Smathers
9:30	Development of a solidarity program for the De La Salle University School of Agronomy: Experience in the pro-niño leones school	Andres Cruz-Hernandez *
9:45	How researchers act as 'Bridgers' in Brussels food Policy making	Toma Rixen *, Noémie Maughan, Francisco Davila, Marjolein Visser
10:30	Preliminary market research on a zero-acreage farming model - The home-scale organic hydroponic tent set	Ting-I Lee *, Yi-Hsuan Hsieh
10:45	Creating expectations and controversies for urban-vertical farming	Michael Martin *, Maria Bustamante
11:00	Pop-up farm markets: innovation for sustainability in urban agriculture	Eric Barrett *, Robert Leeds

Session 02 - Food Systems in European cities: experiences from the H2020 FOODE project Giffard Room - Screen 1

Chair: Kathrin Specht, ILS, Germany

11:15	Towards more resilient, community-driven urban food systems: designing and implementing case studies in European cities	Isabella Righini *, Giuseppina Pennisi, Chiara Cirillo, Pere Muñoz, Adam Curtis, Cecilia Stanghellini, Francesco Orsini
11:30	Innovative and sustainable business models of CRFS: a systematic review on bioeconomy innovative business model	Véronique Saint-Ges *, Francesco Cirone, Matteo Vittuari, Claudia Wiese, Bernd Poelling, Luuk Graamans
11:45	Do we still need to develop new tools to assess the sustainability of urban agriculture?	Agnès Lelièvre *, Paola Clérino
12:00	Social assessment of rooftop farming projects	Susana Toboso-Chavero *, Xavier Gabarrell Durany, Verónica Arcas-Pilz, Gara Villalba
12:15	Nutrients uptake and quality of leafy vegetables in aquaponics system are affected by supplemental LED lighting	Chiara Cirillo *, Giuseppe Carlo Modarelli, Lucia Vanacore, Antonio Luca Langellotti, Paolo Masi, Stefania De Pascale, Youssef Roupheal
12:30	Potential volatile organic compounds emission in indoor urban farming: a case study	Gaia Stringari *, Joan Villanueva-Ribes, Antoni Rosell-Melé, Francesco Orsini, Xavier Gabarrell-Durany

S11: INTERNATIONAL SYMPOSIUM ON ADAPTATION OF HORTICULTURAL PLANTS TO ABIOTIC STRESSES

ORAL PRESENTATIONS

Session 05 - Physiological responses to abiotic stress Botanical Room - Screen 1
Chair: Chair - Majken Pagter, Aalborg University, Denmark

8:30	Apple fruit responses to sunburn in Italy	Alexandra Boini *, Luigi Manfrini, Gianmarco Bortolotti, Melissa Venturi, Brunella Morandi
8:45	Temperature-dose response of tomato fruit set and pollen quality	Ana Cristina Zepeda *, Leo F.M. Marcelis, Ep Heuvelink
9:00	Effect of leaf temperature on photosynthetic yield and relative injury of <i>Phalaenopsis</i>	Ting Wei Chiu *, Wei-Ting Tsai, Ching Chuang

*Indicates presenting author

SYMPOSIUM 11

9:15	Salt tolerance in avocado through physiological and metabolic modifications of the scion and rootstock	Silit Lazare, Hagai Yasour, Uri Yermiyahu, Yariv Brotman, Alon Ben Gal, Arnon Dag *
9:30	When things get too salty: use forest residue extracts! In vitro screening of plant-based compounds for increased salt stress tolerance in <i>A. thaliana</i> , <i>S. Lycopersicum</i> and <i>L. Sativa</i>	Eva Ors *, Barrada Adam, Martine Dorais, Maxime Delisle-Houde, Thi Thuy An Nguyen, Russell J. Tweddell, Veedaa Soltaniband, Robab Mahmoudi
9:45	Impact of mechanical stimulation on <i>Hydrangea macrophylla</i>	Béra Ley-Ngardigal *, Vincent Guérin, Lydie Huché-Thélier, Nathalie Brouard, Thomas Eveleens, Hanaé Roman, Nathalie Leduc

S13: INTERNATIONAL SYMPOSIUM ON PLANT NUTRITION, FERTILIZATION, SOIL MANAGEMENT

ORAL PRESENTATIONS

Session 04 - Soil nutrition with organic matter and biostimulants
Chair: Kate Congreves, University of Saskatchewan, Canada

Panoramic Room - Screen 1

8:30	Suitability of organic amendments in production of Brassica oleracea in Western Kenya	Anne Karanja *, Ester Njoroge
8:45	Organic nutrients impact on the productivity of carrots (<i>Daucus sativus</i> Rohl.) and onions (<i>Allium cepa</i> L.)	Rasa Karkleliene *, Audrius Radzevicius, Danguole Kavaliauskaite, Danguole Juskeviciene
9:00	Investigations into the effects of a commercial organic fertilizer and of quality compost on the soil and the vines	Martin Mehofer *, Bernhard Schmuckenschlager, Karel Hanak, Christian Bader, Ingrid Hofstetter
9:15	Alternative method of compost application in organic vegetable cropping systems	Ehsan Ebrahimi *, Jana Zinkernagel
9:30	Mitigating soil compaction and improving vegetable yield and quality using half-matured compost	Kae Miyazawa *, Sohma Takanari

Session 04 - Soil nutrition with organic matter and biostimulants
Chairman: Kate Congreves, University of Saskatchewan, Canada

Panoramic Room - Screen 1

10:30	Extending the growth period of green manure can reduce the risk of soil organic matter loss due to priming effects	Kae Miyazawa *, Yu-Chau Chen, Shunto Ishiguro
10:45	Effect of co-composted biochar on nitrogen availability to spinach	Johannes Görl *, Dieter Lohr, Elke Meinken
11:00	Slow-release and environmentally-friendly compost production with poultry waste for maintaining soil health and sustainable crop production	Girish K.S. Panicker *, Leonard Kibet, Charles Weiss
11:15	The future of frass: a sustainable fertilizer with biostimulation properties	Emmanuel Caron-Garant *, Aleena Massenet, Sébastien F. Lange, Christopher Warburton, Pierre Charbonneau
11:30	Changes in yield and quality features of sweet pepper as modulated by arbuscular mycorrhizal fungi and molybdenum biofortification	Beppe Benedetto Consentino *, Livio Torta, Giulia Mirabile, Georgia Ntatsi, Salvatore La Bella, Claudio De Pasquale, Leo Sabatino
11:45	Organic matter amendments on nutrient and water status within subtropical peach orchards	Brian Lawrence *, Juan Carlos Melgar

Session 05 - Decision tools for fertilization management
Chair: Elmi Lotze, Stellenbosch University, South Africa

Panoramic Room - Screen 1

12:00	Improving N fertilization management in organic vegetable farming with decision support systems	Sarah Tietjen *, Konrad Egenolf, Rachel Fischer, André Sradnick
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12:15	Reduced fertilizer use – increased risk? – Qualitative and quantitative analysis of economic risks and risk perceptions of German vegetable growers	Hildegard Garming *, Linda Kristina Bork, Hanna Wildenhues, Henriette Burger
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S14: INTERNATIONAL SYMPOSIUM ON SUSTAINABLE CONTROL OF PESTS AND DISEASES

Symposium supported by :



ORAL PRESENTATIONS

Session 02 - Natural and synthetic compounds for disease control
Chair: Valérie Caffier, INRAE IRHS, France

Grand Angle Room B - Screen 1

8:30	Keynote: Biological control of plant pathogens in greenhouse crops	Monica Höfte *
9:00	Synthesis of 4 years of evaluation of natural substances in the control of apple scab with a view to reduce copper doses	Anne Duval-Chaboussou *
9:15	Novel systemic acquired resistance (SAR) inducers for managing Huanglongbing (citrus greening) and citrus canker diseases	Ozgur Batuman *, Sanju Kunwar, Ana Redondo, Denise Manker, Meagan Iott, Thomas Knobloch, Stephane Brunet, Jeremy Dufour
9:30	Chitosan, a complex substance but with great potential for global IPM and for reducing farmers dependence on synthetic fungicides	Emmanuel Pajot *
9:45	Garlic volatile diallyl disulfide induced cucumber resistance to downy mildew	Zhihui Cheng *, Fan Yang

Session 04 - Alternative control methods
Chair: Anastasia Tsagkarakou, Greece

Grand Angle Room B - Screen 1

10:30	Effectiveness of pheromone traps in management of Tephritid flies on mango <i>Mangifera indica</i> and cucurbits in central Kenya	Maina Mwangi *, Berice Imbayi, Ruth Kahuthia-Gathu
10:45	UVC treatment effective against powdery mildew in zucchini	Jonathan De Mey *, Sabien Pollet
11:00	Flashes of UV-C light : a powerful new method for stimulating plant defenses against powdery mildew of tomato plants grown in soilless greenhouse conditions	Laurent Urban *, Jawad Aarouf, Félicie Lauri, Marine Rigault, Raphaël Tisiot
11:15	Designing nanoparticles to block root parasite-host communication - environmental friendly weed control	Chen Dayan *, Hammam Ziadne, Hanan Eizenberg, Yael Mishael
11:30	Benefits and limitation of the cultivation of apple trees under rainproof cover	Franziska Zavagli *, Daniel Bondesan, Jordi Cabrefiga, Irene Donati, Hinrich Holthusen, Markus Kelderer, Franco Micheli, Andreas Naef, Francesco Spinelli, Pere Vilardell, Marcel Wenneker
11:45	Use of row cover on yellow squash and zucchini production to manage whitefly and whitefly-transmitted viruses	Andre da Silva *, Timothy Coolong, Ayanava Majundar, Edward Sikora, Alvin Simmons
12:00	Preliminary evaluation of irrigator emitters used as solid set canopy delivering system in apple orchard and vineyard	Eric Mozzanini *, Marco Grella, Daniel Bondesan, Paolo Marucco, Claudio Rizzi, Claudio Ioriatti, Paolo Balsari, Fabrizio Gioelli

*Indicates presenting author

WEDNESDAY 17 AUGUST

S16: INTERNATIONAL SYMPOSIUM ON INNOVATIVE PERENNIAL CROPS MANAGEMENT

ORAL PRESENTATIONS

8:30	Introduction to the symposium	Sara Serra & Pierre-Eric Lauri
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Session 01 - Innovations towards orchard optimization - I - horticultural system and plant material
Chair: Frédéric Normand, CIRAD, France

Open Garden Room - Screen 1

8:45	Keynote: The effect of a mild winter climate (low chill accumulation) on apple production and how this can be mitigated	Karen I. Theron *, Esmé Louw, Wiehann Steyn
9:15	Plant growth regulators to increase fruit set on two different 'Williams' pear orchards in Uruguay: with and without pollinizer	Bruno Carra *, Pablo B. Rodríguez, Danilo Cabrera, Marcelo Falero, Maximiliano Dini, Poliana Francescatto
9:30	Challenges for developing high-density mango orchards	Frederic Normand *, Doralice Veillant, Muriel Sinatamby
9:45	Controlling cider apple harvest maturity and pre-harvest drop with Aminoethoxyvinylglycine, 1-Naphthaleneacetic Acid, and Ethephon	Gregory Peck *

Session 01 - Innovations towards orchard optimization - I - horticultural system and plant material
Chair: Karen Theron University of Stellenbosch, South Africa

Open Garden Room - Screen 1

10:30	Pomological performance of a 2-dimensional planar cordon apple orchard	Ben van Hooijdonk *, Jess Byrne, Tessa Leitch, Ken Breen, Hassan Saei, Daya Dayatilake, Stuart Tustin, Adam Friend
10:45	Unifying concepts for understanding fruit trees	Ted M. DeJong *
11:00	Training system effects on light interception and fruit size of Kordia sweet cherry on Krymsk 5	Cameron Stone, Dugald Close *, Sally Bound
11:15	Effects of harvest time on maturity, fruit quality, and consumer acceptance of 'WA 38' apples	Sara Serra *
11:30	Field Testing Prunus Rootstocks in South Carolina for Peach Tree Short Life and Armillaria Tolerance	Gregory L. Reighard *, David Ouellette, Ioannis Minas
11:45	Enhancing yield efficiency and fruit quality in Citrus through use of tetraploid rootstocks	Ute Albrecht *, Sudip Kunwar, Jude Grosser, Fred G. Gmitter Jr., William B. Castle
12:00	Behaviour of hazelnut cultivars in the eco-pedoclimatic conditions of the Bucharest area	Florin Stanica *, Cosmin Mihai, Eugen Cristian Prodan, Ana Cornelia Butcaru
12:15	Variability of mango tree production (cv. 'Kent') in Northern Ivory Coast	Jean Mathias Koffi *, Julien Sarron, Dognimeton Soro, Frederic Normand, Charles Konan Kouakou, Lassina Fondio, Emile Faye

S17: INTERNATIONAL SYMPOSIUM ON INTEGRATIVE APPROACHES TO PRODUCT QUALITY IN FRUITS AND VEGETABLES

ORAL PRESENTATIONS

Session 04 - Quality build-up under the impact of pre- and post-harvest factors
Chair: Carol Wagstaff, University of Reading, UK

Amphitheatre Lagon

8:30	Keynote: Multi-omics approaches towards the development of healthier fruits and vegetables	Jessica Cooperstone *
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9:00	Keynote: Improving crop sustainability and fruit quality through integrated analyses along the food chain	Anne-Laure Fanciullino *, Miarka Sinkora, Thomas Breniere, David Page, Nadia Bertin
9:30	Linking biochemistry and genetics to taste and flavour perceived by the consumer, creating a more acceptable celery product.	Carol Wagstaff *, Lucy Turner, Stella Lignou
9:45	LOCALNUTLEG: Developing innovative plant-based added-value food products through the promotion of local Mediterranean NUT and LEGUME crops	Ingrid Aguiló *, Jordi Ortiz, Gemma Echeverria, Maribel Abadías

Session 04 - Quality build-up under the impact of pre- and post-harvest factors
Chair: Carol Wagstaff, University of Reading, UK

Amphitheatre Lagon

10:30	Maintaining almond quality for a warmer world.	Alyson Mitchell *, Kathleen Luo, Guangwei Huang
10:45	Influence of rootstock, fruit development stage and ploidy level on the peel essential oil yield, composition and aromatic properties of sweet orange (Citrus sinensis).	Vincent Ferrer *, Noémie Paymal, Carole Quiton, Mathieu Paoli, Gilles Costantino, Yann Froelicher, Patrick Ollitrault, Félix Tomi, François Luro
11:00	Impacts of heat stress on seed quality in oilseed rape: analysis of the kinetic development of seed storage compounds.	Lethicia Magno Massuia de Almeida *, Jean-Christophe Avice, Annette Morvan-Bertrand, Nicolas Elie, Alain Mollier, Sophie Brunel-Muguet
11:15	Pruning and thinning combination effects on production and fruit quality in flat peach cultivars	Franco Capocasa, Irene Medori, Francesca Balducci, Micol Marcellini, Paolo Acciarri, Bruno Mezzetti, Luca Mazzoni *
11:30	Influence of the rootstock and of the environment on phenolic composition in blood orange.	Giulia Modica *, Laura Siracusa, Giuseppe Ruberto, Mario Di Guardo, Stefano La Malfa, Alessandra Gentile, Alberto Continella
11:45	Quality traits and mineral profile of carrot 'Dordogne' as affected by foliar applications of silicon.	Federico Basile *, Rosario Paolo Mauro, Camila Vanessa Buturi, Miriam Distefano, Claudio Cannata, Francesco Adorna, Francesco Giuffrida, Cherubino Leonardi
12:00	The canning effect on selected 'physico-chemical properties of underutilised Transvaal Red milkwood (Mimusops zeyheri)	Tieho Paulus Mafeo *, Thabiso Kenneth Satekge, Olga Mamphatlo Sebati, Nhlanhla Mathaba

S18: III INTERNATIONAL SYMPOSIUM ON MECHANIZATION, PRECISION HORTICULTURE, AND ROBOTICS: PRECISION AND DIGITAL HORTICULTURE IN FIELD ENVIRONMENTS

Symposium supported by :



ORAL PRESENTATIONS

Session 01 - 3D Imaging
Chair: Christopher Pradal, CIRAD, France

Botanical Room - Screen 1

10:30	Keynote: towards digital twins for horticulture: coupling data-intensive phenotyping with functional-structural plant models	Christophe Pradal *
11:00	Analysing the effect of leaf area and crop load on fruit size by means of 3D point cloud	Nikos Tsoulas *, Kowshik Kumar Saha, Manuela Zude-Sasse

*Indicates presenting author

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SYMPOSIUM 18

11:15	Testing the suitability of a terrestrial 2D LiDAR scanner for 3D canopy characterization of narrow vineyards to optimize the spraying process of pesticides	Anice Cheraïet, Olivier Naud *, Sébastien Codis, Pierre Petitot, Florent Bidaut, Mathieu Liebart, James Taylor
11:30	Detection of ripening stage of tomato by means of 3D fruit point cloud	Kowshik Kumar Saha *, Nikos Tsoulas, Manuela Zude-Sasse
11:45	High throughput phenotyping of architectural traits of a core collection of apple trees from airborne LiDAR	Evelyne Costes, Juan-Pablo Rojas-Bustos *, Amaury Branthomme, Frederic Boudon
12:00	Leaf area estimation of strawberry plants using commercial low-cost LiDAR	Navneet Singh, Kowshik Kumar Saha *, Prashanth Makaram, Manuela Zude-Sasse
12:15	Combining 3D structural features and multimodal fusion data to correct illumination effect of plant multispectral point clouds	Pengyao Xie *, Haiyan Cen

S19: INTERNATIONAL SYMPOSIUM ON ADVANCES IN BERRY CROPS

ORAL PRESENTATIONS

Session 05 - Fruits and post-harvest

Chair: Maria da Graça Palha, INIAV, Portugal

Amphitheatre Volney

8:30	Best practices to avoid fruit drop in an early cultivation of redcurrant	Miet Boonen, Clara Spruyt *, Bart Vanhoutte, Dany Bylemans
8:45	Postharvest ultraviolet light evaluation for the shelf life of red raspberries	Nicole Giuggioli *, Luca Brondino, Cristiana Peano
9:00	Consumer awareness, buying behaviour and use of fresh berries in different countries	Eike Kaim *

Session 06 - Cultural techniques including new approaches

Chair: Stanislaw Pluta, Research Institute of Horticulture Skierniewice, Poland

Amphitheatre Volney

9:15	Resource allocations of day-neutral strawberries in high tunnels	Sanjun Gu *, Tekan Rana
9:30	Effect of nitrogen fertilization on flowering of strawberry (<i>Fragaria × ananassa</i> v. <i>Sonata</i>)	Anne Hykkerud *, Inger Martinussen, Anita Snstebby, Tomasz Woznicki
9:45	Recent advances in machine harvesting of blueberries	Fumiomi Takeda *, Wei Q. Yang, Changying Li, Steven A. Sargent, Lisa DeVetter

Amphitheatre Volney

Session 06 - Cultural techniques including new approaches

Chair: Stanislaw Pluta, Research Institute of Horticulture Skierniewice, Poland

10:30	Influence of plant age, chilling hours and genotype in the number of new shoots in red raspberry root system	Pedro N. Brás Oliveira *, João Viegas Oliveira, Cristina Moniz Oliveira, Francisco Luz
10:45	11C-Photosynthate translocation to strawberry fruits depends on leaf transpiration	Jens Mincke *, Yuta Miyoshi, Jan Courtyn, Stefaan Vandenberghe, Christian Vanhove, Kathy Steppe
11:00	Effect of different nurseries and pot size on yield and long-canec collapse of 'Sapphire' raspberry	Manuel Roque *, Mariana Mota, Pedro Brás de Oliveira
11:15	Polyethylene and soil-biodegradable plastic mulches in raspberry production	Lisa DeVetter *, Brenda Madrid, Huan Zhang, Jessica Goldberger, Sean Watkinson, Carol Miles
11:30	Dynamic agrivoltaics with berry crops	Bastien Christ *, Matthias Baumann, André Ançay, Christoph Carlen, Gael Nardin, Mathieu Ackermann, Laetitia Anglade, Mathilde Duchemin, Vanina Nicolier

11:45	The LIGHT CASCADE® sunlight photoconversion greenhouse films increase berries production and provide a better resistance towards biotic and abiotic stresses in Mediterranean countries	Frederic Peilleron, Severine Lemarie *, Kristof Proost, Anne Sophie Quellec, Magdalena Torres, Simon Cordier, Gildas Guignard
12:00	Fruit drop in kiwi berry orchards cultivated in Europe	Fabien Bec*, Amélie Valadas

S21: XII INTERNATIONAL SYMPOSIUM ON BANANA : CELEBRATING BANANA ORGANIC PRODUCTION

Symposium supported by :



ORAL PRESENTATIONS

Session 03 - Challenges of pest and disease control without conventional pesticides

Chair: Charles Staver, Universidad Veracruzana, Mexico

Amphitheatre Inca

8:30	Alternative weed management in organic banana agrosystems	Steewy Lakhia *, Marc Dorel, Raphaël Achard
8:45	Systemic resistances of banana as a potential tool to control of <i>Fusarium oxysporum</i> f. sp. cubense race 1	Jessica Mendoza Rodríguez, Nayanci Portal, Ermis Yanes Paz, Rayza Gonzalez Rodriguez, Monguy Ramon Santos, Alain Soler *
9:00	Tools for the management of the banana bunchy top disease in small holder systems	Bonaventure Omondi Aman Oduor *, Misheck Soko, Innocent Nduwimana, Alice Simbare, Geoffroy Dato, Celestin Niyongere, Charles Staver, Faride Athindehou
9:15	Soil health research strategies for managing Fusarium wilt of banana in Brazil	Luiz Teixeira *, Edson Nomura, Erval Damatto Jr, Miguel Dita
9:30	On the use of hot water treatment to control postharvest diseases of export grown banana fruit (<i>Musa</i> sp., Group AAA, subgroup Cavendish, cv. Williams)	Simón Uribe-Palacio, Maricruz Ramírez-Sánchez *, Gerardina Umaña-Rojas, Marco Vinicio Sáenz-Murillo

Session 04 - Marketing organic bananas: The role of Sustainable Development Goals (SDGs) on certification and emerging trends

Chair: Hans-Willem van der Waal, Agrofair, Netherlands

Amphitheatre Inca

9:45	Keynote: The impact of private public certification labels on smallholder holder participation in trade	Marieke de Pena *
10:15	Tailoring Goldfinger for improved market prospects	Katelyn Robertson *, Jeff Daniells
10:30	A paradox : mercantile organic against sustainability in Europe ?	Denis Loeillet *, Thierry Lescot, Carolina Dawson
10:45	Ma\$ Banano: An app to leverage data from smallholder organic export banana for continual improvement	Charles Staver *, Gustavo Mora, Juan Jose Coria, Gerardo Acevedo, Eduardo Guszman, Oscar Eder Flores, Domingo Rengifo, Aura Paulino, Ewddy Perez, Aridio Perez, Juan Carlos Rojas Llanque, Esdwin Nunez, Rosa Elena Corozo, Gema Espinoza, Wuellins Durango, Solanyi Tiselema, Pablo Suarez, Antonio Bustamante, Juan Carlos Torres
11:00	Can stable isotopes separate organic from conventional bananas?	Philippe Tixier *, Denis Loeillet, Mathieu Coulis, Thierry Lescot, Luc de Lapeyre de Bellaire
11:15	Going bananas: from risky businesses to latest authentication technologies	Saskia van Ruth *, Zhijun Wang, Sara Erasmus
11:30	Agronomic and organoleptic performance of organically produced provitamin A rich bananas for introduction into farming and diet systems of Burundi and Democratic Republic of Congo	Beatrice Ekesa *, Alice Simbare, Muller Kamira, Charles Sivirihauma, Mpoki Shimwela, Deborah Nabuuma

*Indicates presenting author

WEDNESDAY 17 AUGUST

S23: INTERNATIONAL SYMPOSIUM ON POSTHARVEST TECHNOLOGIES TO REDUCE FOOD LOSSES

ORAL PRESENTATIONS

Session 05 - Postharvest pathology, microbiological and chemical safety
Chair: Carmen Ziv, ARO, Israel

Amphitheatre Pocquet

8:30	Keynote: Crosstalk between phytobiome and postharvest pathology	Ahmed Abdelfattah *
9:00	Encapsulation of dsRNA within nano-clay sheets reduces Botrytis cinerea colonization and gray-mold in harvested fruits	Danielle Duanis-Assaf, Ortal Galsurker, Ilya Shlar, Dalia Maurer, Oleg Feygenberg, Elena Poverenov, Robert Fluhr, Noam Alkan *
9:15	In-vitro control of storage spoilage fungi in export grade white yam (<i>Dioscorea rotundata</i> Poir.) using cocoa (<i>Theobroma cacao</i> L.) leaf extracts	Patrick Kumah *, Samuel Ampofo
9:30	Valorization of underutilized groundnut waste: a potential source of «green» antimicrobials for controlling spoilage and improving safety of fresh produce	Nimrod Tish, Yakov Vinokur, Victor Rodov *
9:45	Postharvest disease detection in stored potatoes using rapid volatile sensing techniques (send)	Sindhuja Sankaran *, Gajanan Kothawade, Worasit Sangjan, Austin Bates, Brenda Schroeder, Lav Khot

Session 06 - Physiological disorders

Chair: Christopher Watkins, Cornell University, USA

Amphitheatre Pocquet

10:30	Phenylalanine: Improved fruit resistance against biotic and abiotic stress	Manish Kumar Patel, Dalia Maurer, Oleg Feygenberg, Rinat Ovadia, Noa Sela, Michal Fanyuk, Michal Oren-Shamir, Noam Alkan *
10:45	Overview of sunscald on pears, a new increasing storage disorder in hot and dry environments	Carolina A. Torres *, Rene Mogollon, Jingi Yoo
11:00	X-ray imaging of internal browning in apple and pear fruit after accelerated CA storage experiments	Astrid Tempelaere *, Leen Van Doorselaer, Tim Van De Looverbosch, Michiel Pieters, Jiaqi He, Pieter Verboven, Ann Schenk, Bart Nicolai
11:15	How to improve commercial quality of a new hybrid of banana by managing post-harvest conditions and increasing knowledge in physiological injury?	Mathieu Lechaudel *, Sandrine Andypain, Didier Mbeguie-a-Mbeguie, Frédéric Salmon
11:30	Volatile Organic Compounds as potential markers for Kiwifruit Storage breakdown (SBD)	Brian Farneti, Antonio Cellini, Iuliia Khomenko, Irene Donati, Franco Biasioli, Francesco Spinelli *
11:45	Organic acid and volatile profiles of hexanal treated 'Florida Fortuna' strawberry fruit during storage life	Nesibe Ebru Kafkas *, Ayse Tulin Oz
12:00	Blueberry mealiness: An influence of varietal texture differences	Angelo Castro *, Maarten Hertog, Clare Kyomugasho, Bart Nicolai
12:15	Manipulating tomato climacteric ripening by mutating or over expressing ICDH1 a feasible mediator between respiration and ethylene production	Dan Gamrasni *, Amit Asiag-Tabatznik, Tomer Lindman, Tom Shlomovich, Amir Raz, Martin Goldway

S25: INTERNATIONAL SYMPOSIUM ON MEDICINAL AND AROMATIC PLANTS: DOMESTICATION, BREEDING, CULTIVATION AND NEW PERSPECTIVES

ORAL PRESENTATIONS

Session 04 - New perspectives for cultivation II
Chair: Christoph Carlen, Agroscope, Switzerland

Amphitheatre Amande

8:30	Application of the box-Behnken design to optimize the growth conditions and the secondary metabolites production of <i>Euphorbia peplus</i> cultivated in hydroponics	Wael Ben Hmouda *, Françoise Bafort, Haïssam Jijakli
8:45	Growing high quality medical cannabis: everything starts with a good rooting	Celine Nicole *, Wannida Sae-Tang, Sabrina Carvalho, Leo F. M. Marcelis
9:00	The effects of different growing substrates media on growth and cannabinoid content of <i>Cannabis</i> under an indoor pot cultivation system	Premkamol Nounbunma *, Chanon Lapjit
9:15	Specialized metabolites content in hydroponically grown nettle	Nevena Opacic *, Jana Sic Zlabur, Lucijan Sikiric, Marko Petek, Lepomir Coga, Sanja Fabek Uher, Bozidar Benko, Nina Toth, Sandra Voca, Sanja Radman
9:30	Culture filtrate of <i>Serendipita indica</i> as an effective elicitor of stilbenes production in <i>Arachis hypogaea</i>	Hajer Ghozlen *, Maarten Claes, Sven Mangelinckx, Stefaan werbrouck
9:45	Current status of using bioreactors to produce secondary metabolites from medicinal and aromatic plants	Alice Petrini *, Grazia Maria Scarpa, Federica Manunta, Silvana Nicola

TECHNICAL TOURS

- TECHNICAL TOUR 1 : HORTICULTURE RESEARCH PLATFORM, FROM GENES TO SUSTAINABLE CROPPING SYSTEM AND ENVIRONMENT
 - TECHNICAL TOUR 2 : AGROECOLOGY AND EDUCATION
 - TECHNICAL TOUR 3 : GEVES LABORATORIES AND PHENOTYPING PLATFORM: SEED QUALITY EVALUATION, VARIETY RESISTANCE & SEED PHENOTYPING
 - TECHNICAL TOUR 4 : SEED PROCESSING AND VARIETY TESTING OF VEGETABLES & ORNAMENTALS (VILMORIN-MIKADO & GEVES)
 - TECHNICAL TOUR 6 : VEGETABLE EXPERIMENTATION AND PRODUCTION
 - TECHNICAL TOUR 7 : FRUIT EXPERIMENTATION AND PRODUCTION
 - TECHNICAL TOUR 8 : FRUIT BREEDING, NURSERIES AND MARKETING (IFO&IRHS)
 - TECHNICAL TOUR 10 : URBAN AGRICULTURE
 - TECHNICAL TOUR 11 : ORGANIC PRODUCTION
 - TECHNICAL TOUR 12 : MEDECINAL AND AROMATIC PLANTS
 - TECHNICAL TOUR 13 : EXPERIMENTATION AND PRODUCTION OF ORNAMENTALS (HORTIVAL & ASTREDHOR)
 - TECHNICAL TOUR 14 : DIVERSITY AND GENETICS OF ORNAMENTALS
 - TECHNICAL TOUR 15 : LANDSCAPING & GREEN CITIES
 - TECHNICAL TOUR 16 : LOIRE VALLEY VITICULTURE AND WINES
 - TECHNICAL TOUR 17 : INVENTING NEW FLOWERING AND GOURMET GARDENS (VOLTZ HORTICULTURE)
- Departure from the Congress Centre via shuttles

SOCIAL EVENT

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THURSDAY 18 AUGUST

08:30 - 10:00

PLENARY SESSION 3: COMPETITIVENESS AND SKILLS FOR HORTICULTURAL VALUE CHAINS

KEYNOTE SPEAKERS : Yvonne Pinto and Jérôme Leroy

S1: INTERNATIONAL SYMPOSIUM ON BREEDING AND EFFECTIVE USE OF BIOTECHNOLOGY AND MOLECULAR TOOLS IN HORTICULTURAL CROPS

Symposium supported by :



ORAL PRESENTATIONS

Session 07 - Specific traits for improved product quality Amphitheatre Jardin - Screen 1
Chairs: Yuval Cohen, Volcani Research Center and Ana Perez, Intituto de la Grasa - CSIC, Spain

10:30	Alternative splicing of acetohydroxyacid synthase and isopropylmalate synthase provides means for production of 'Cavendish' banana fruit aroma	Philip Engalgau *, Randolph Beaudry
10:45	Genetic architecture of agronomic traits in <i>Stevia rebaudiana</i>	Charles Bastide *, Zoé Le-Bihan, Patrick Cosson, Galadriel Briere, Erwan Guichoux, Alexis Groppi, Dominique Rolin, Valérie Schurdi-Levraud, Raluca Uricaru
11:00	Morphological and molecular characterization of fibrousness in mango fruit mesocarp	Yuval Cohen *, Mazal Ish shalom, Adi Doron-Faigenboim, Shay Tsaidi, Hanita Zemach, Amir Sherman
11:15	Direct-injection spectrometry and whole-genome genotyping unravel the genetic regulation of fresh and roasted kernels of almond	Gaetano Distefano *, Mario Di Guardo, Brian Farneti, Khomenko Iuliia, Leonardo Luca, Modica Giulia, Luca Bianco, Michela Troggo, Francesco Sottile, La Malfa Stefano, Franco Biasioli, Alessandra Gentile
11:30	Olive breeding: key genes to improve virgin olive oil phenolic composition	Ana G. Perez *, Rosario Sánchez, Carlos Sanz, Laura Arroyo
11:45	Identification and validation of QTLs for tuber quality related traits in yam (<i>Dioscorea alata</i> L.)	Gemma Arnau *, Adou Emmanuel Ehounou, Erick Maledon, Elie Nudol, Hélène Vignes, Marie-Claire Gravillon, Assanvo Simon P Nguetta, Pierre Mournet, Amani Michel Kouakou, Hana Chair, Fabien Cormier
12:00	The unique LcFT1 gene sequence linked to early-flowering in the tropical litchi 'Khom'	JenYu Chang *, Yi-Wen Ho, Chia-Nan Tao, Jer-Way Chang
12:15	Deciphering the genetic basis of tocopherol biosynthesis in almond kernel	Ana Luísa Ferreira Faustino *, Gonçalo Almeida, R. Costa Pires, David Soldado, Liliana Cachucho, M. Margarida Oliveira, Eliana Jerónimo, Liliana Marum

Session 08 - Adaptation to abiotic stress and climate change Amphitheatre Jardin - Screen 1
Chairs: Kyoka Nagasaka, Kyoto University, Japan and Prem Bhalla, University of Melbourne, Australia

15:30	Functional analysis of soybean microRNAs on flowering time regulation	Prem Bhalla *, Sangil Lee, Mohan Singh
15:45	Polyploid GWAS identifies loci associated with phenology-related traits in Southern Highbush Blueberry	Kyoka Nagasaka *, Soichiro Nishiyama, Mao Fujikawa, Hisayo Yamane, Kenta Shirasawa, Ebrahiem Babiker, Ryutaro Tao

16:00	Using a genome wide association study to assist new apple cultivar development in mitigating climate change effects	Vincent Bus *, Xiaoying Chen, Satish Kumar, Cecilia Deng, Ben van Hooijdonk, Erika Varkonyi-Gasic, Janne Lempe, James Millner, Claudia Wiedow, Svetla Sofkova-Bobcheva, Andreas Peil, Henryk Flachowsky
16:15	Genetic control of plasticity of cultivated strawberry for major agronomical traits	Alexandre Prohaska *, Béatrice Denoyes, Aurélie Petit, Iraida Amaya, José F. Sevilla, Luca Mazzoni, Bruno Mezzetti, Silke Lesemann, Klaus Olbricht, Agnieszka Masny, Sonia Osorio
16:30	The genetic control of apple High Temperature Browning and its implication for crop resilience in a changing climate	Ben Orcheski *, Elena López-Girona, Anna Tattersall, David Chagné, Frayja Elliott, Donald Hunter, Amanda Karlstrom, Richard Volz, Jason Johnston
16:45	Occurrence and mechanistic basis of 2n gamete formation in apple (<i>Malus x domestica</i> Borkh.)	Han Palmers *, Marijn Rymenants, Nico De Storme

E-POSTER FLASH PRESENTATIONS

Session P9 - Breeding and markers Amphitheatre Jardin - Screen 1
Screen S01.1
Chair: Sébastien Ricci, CIRAD, France

17:10	QTL analysis of antioxidant activity, total polyphenol content and red pigment content in red paprika (<i>Capsicum annuum</i> L.)	Doie Park *, Jundae Lee
17:15	Genetic mapping of the unique photosynthetic stem of the wild almond <i>Prunus arabica</i> (Olivier) Meikle	Hillel Brukental *, Irit Bar-Ya'akov, Adi Doron-Faigenboim, Rotem Harel Beja, Tamar Azoulay-Shemer, Doron Holland
17:20	Detection of dynamic QTLs for traits related to organoleptic quality during banana ripening	Sébastien Ricci *, Mathieu Lechaudel, Stella Biabiany, Angélique D'Hont, Guillaume Martin, Emille Araou, Fabien Cormier, Françoise Carreel, Catherine Hervouet, Frédéric Salmon, Jean-Claude Efile, Félicie Lauri

Session P9 - Breeding and markers Amphitheatre Jardin - Screen 2
Screen S01.2
Chair: José Quero Garcia, INRAE, France

17:10	Construction of a genetic linkage map and HRM marker development in a 'Tano Red' x 'Ruby Seedless' F1 grape population by genotyping-by-sequencing	Seung Hyeon Joung *, Dong Jun Im, Youn Young Hur, Jundae Lee
17:15	Development and validation of molecular markers associated to sweet cherry agronomical traits for breeding programs	José Quero Garcia *, Elisabeth Dirlewanger, Camille Branchereau, Océane Bellerose, Teresa Barreneche, Mathieu Fouché, Bénédicte Wenden, Loick Le Dantec, Clarisse Auvinet, Amandine Boubennec
17:20	A major QTL conferring downy mildew resistance in Couve Algarvia (<i>Brassica oleracea</i> var. <i>trunchuda</i> Bailey) is located on chromosome 8	Paula Coelho *, Jorge Carlier, Antonio Monteiro, José Leitão

S2: INTERNATIONAL SYMPOSIUM ON CONSERVATION AND SUSTAINABLE USE OF HORTICULTURAL GENETIC RESOURCES

ORAL PRESENTATIONS

Session 04 - Characterization and evaluation of horticultural germplasm for sustainable production in support of the Sustainable Development Goals Grand Angle Room A - Screen1
Chair: Bart Panis, Bioversity International & KU Leuven, Belgium

10:30	Conservation and characterization of the USDA National Pear Collection at the NCGR	Nahla V. Bassil *, Lauri Reinhold, Jason Zurn, Joseph Postman, Barbara Gilmore, Gabriel Flores, Gayle Volk, Maria Jenderek, Sara Montanari, David Chagne, Vincent Bus, Lester Brewster, Chris Dardick, Christopher Gottschalk, Charles-Eric Durel, Caroline Denance
10:45	Characterization of Lithuanian garlic (<i>Allium sativum</i> L.) accessions	Danguole Juskeviciene *, Audrius Radzevicius, Rasa Karkliene

*Indicates presenting author

THURSDAY 18 AUGUST

SYMPOSIUM 2

11:00	Genetic Diversity of Western Sand Cherry (<i>Prunus besseyi</i>)	Per McCord *
11:15	Characterizing and unravelling the agronomical potential of stone fruit crop wild relatives	Veronique Decroocq *, Amandine Cornille, Shuo Liu, Stéphane Decroocq, Quynh Trang Bui, Alexis Groppi, Tatiana Giraud
11:30	Genotype, environment, and interactive effects on olive tree photosynthesis and fruit ripening	Anna Volakaki, Ioanna Manolikaki, Georgios Koubouris *
11:45	Assessment of genetic variability amongst cultivated varieties of quince (<i>Cydonia oblonga</i> Mill.) detected by ISSR	Ana Pedrosa *, Alberto Cardoso, Tércia Lopes, Marlene Mota, Mafalda Resende, Mário Cristóvão, Christophe Espírito Santo, Jorge Canhoto, Sandra Correia

Session 05 - Improved resilience and nutrition through management of horticultural genetic resources, including ethnobotanical approaches

Chair: Rose Onamu, Masinde Muliro University, Kenya

Grand Angle Room A - Screen 1

15:30	Adapting stone fruit to pesticide reduction: screening apricot and peach core-collections for multi-pest resistance via integrative phenotyping under low pesticide management	Marie Serrie *, Véronique Signoret, Alain Blanc, Laurent Brun, Frédéric Gilles, Sabrina Viret, Freddy Combe, Guillaume Roch, Guy Clauzel, Jean-Marc Audergon, Bénédicte Quilot-Turion, Morgane Roth
15:45	Resistance of <i>Brassica</i> L. vegetable crops to Lepidoptera insects due to the content of biologically active substances	Anna Artemyeva *, Anastasia Kurina, Alla Solovieva, Franziska Hanschen, Katja Witzel
16:00	Review of ethnobotanical research in Croatia	Tonka Nincevic Runjic *, Mira Radunic, Marin Cagalj, Marko Runjic
16:15	Multidisciplinary studies to convert the neglected strawberry tree into an economically interesting crop	João Martins, Glória Pinto, Jorge Canhoto *
16:30	Evaluation of intraspecific grafted tomato on <i>Fusarium</i> wilt disease protection, tomato scion growth, and grafting compatibility	Prakob Saman *, Praphat Kawicha, Aphidech Sangdee, Somporn Wongpakdee, Ladawan Rattanapolsan, Thanwanit Thanayasiriwat
16:45	The behaviour of some fig genotypes cultivated in different areas of Romania	Emilia Moisescu *, Florin Stanica

E-POSTER FLASH PRESENTATIONS

Session P3 - Securing horticultural genetic resources and wild edible plants in situ and in complementary ex situ programs

Screen S02.1

Chair: Sarada Krishnan, Denver Botanical Gardens, United States of America

Grand Angle Room A - Screen 1

17:10	First assessment of wild <i>Triticum</i> and <i>Aegilops</i> in Hermon mountain, Lebanon	Lamis Chalak *, Nicole Ghossain, Safaa Baydoun, Mariana Yazbek
17:15	Simple Sequence Repeat (SSR) analysis of repropagated <i>Prunus</i> accessions in the UK National Fruit Collection	Deepti Angra, Edward Venison, Matthew Ordidge *
17:20	Establishment of a core collection of cultivated strawberry to optimize the genetic resources conservation and the breeding programs	Alexandre Prohaska *, Raphaël Maître, Philippe Chartier, Aline Potier, Cécile Bres, Béatrice Denoyes, Aurélie Petit
17:25	Genetic diversity in gooseberry, <i>Ribes uva-crispa</i> , estimated with SSR markers	Larisa Gustavsson *, Josefine Nordlander, Jonas Skytte af Sättra, Helena Mattisson, Kateryna Udovychenko, Olga Lushpigan, Lasse Loose, Matti Leino, Inger Hjalmarsson
17:30	Assessment of genetic diversity of fig trees growing in Lebanon	Al*i Chehade, Ahmad El Bitar, Hafid Achtak, Sylvain Santoni, Laila Essalouh, Bouchaib Khadari
17:35	Characterization of <i>Allium</i> species accessions	Rasa Karkleliene *, Audrius Radzevicius, Nijole Marockiene, Danguole Juskeviciene

Session P4 - Characterization and evaluation of horticultural germplasm for sustainable production in support of the Sustainable Development Goals

Screen S02.2

Chair: Charles-Eric Durel, INRAE IRHS, France

Grand Angle Room A - Screen 2

17:10	Exploration and exploitation of the functional characteristics of the Apulian almond	Salvatore Camposeo, Francesco Maldera *, Pasquale Crupi, Filomena Corbo, Maria Lisa Clodoveo
17:15	Genetic relationships between several Romanian apple cultivars using RAPD molecular markers	Mihaela Iordachescu *, Anca Amalia Udriste, Liliana Badulescu
17:20	Use of molecular markers to characterize reference collections of fruit species	Muriel Thomasset *, Bénédicte Jaudeau, Raphaëlle Narquet, Nadège Desmier, Anne Bernole, Arnaud Remay
17:25	Genetic variability study of Romanian sweet cherry (<i>Prunus avium</i> L.) cultivars using RAPD molecular markers	Mihaela Iordachescu *, Maria Cristina Ionescu, Liliana Badulescu
17:30	Biodiversity of hot pepper germplasm collection from Vegetable Research Development Station Buzau, Romania	Ovidia Agapie *, Elena Barcanu, Costel Vinatoru, Bianca Tanase, Ion Gherase, Florin Stanica

S5: INTERNATIONAL SYMPOSIUM ON INNOVATIONS IN ORNAMENTALS: FROM BREEDING TO MARKET

ORAL PRESENTATIONS

Session 03 - Consumer demands, market preference

Chair: Margherita Beruto, Istituto Regionale per la Floricoltura, Italy

Atrium 3 - Screen 1

10:30	Keynote: Gaining a greater understanding of the trends shaping the consumer demand for ornamental plants	Peter J. Batt *
11:00	Factors influencing customer delight and likelihood to purchase again	Bridget Behe *, Patricia Huddleston
11:15	How does visual attendance to plant attributes influence choice behavior?	Alicia Rihn *, Bridget Behe, Charles Hall, Patricia Huddleston
11:30	What means a half sun? - Understandability of plant care symbols	Anne-Katrin Kleih *, Mira Lehberger, Kai Sparke
11:45	Valuation of floral products through experimental auctions	Melinda Knuth *, Xuan Wu, Charlie Hall, Marco Palma
12:00	Gathering and promoting plants according to their use: A new commercialization approach to reach novice and urban consumers	Ronan Symoneaux *, Anne Laure Laroche
12:15	Protecting intellectual property in varieties of ornamental plants in the European Union	Jens Wegner *

Session 04 - Breeding of ornamental plants I

Chair: Richard Visser, Wageningen University, The Netherlands

Atrium 3 - Screen 1

15:30	Keynote: Metaverse and complex systems, pandemic and proxemic space, social and economical inequality, EU Green Deal and sustainability, intellectual property, biodiversity and benefit of the society. Can ornamental plants breeders still contribute to a better world?	Andrea Mansuino *
16:00	Breeding perennial flax for ornamental and agronomic traits simultaneously during crop domestication increases the efficiency of selection	Neil O. Anderson *, David Tork, Hannah Hall, Donald Wyse, Kevin Betts

*Indicates presenting author

THURSDAY 18 AUGUST

SYMPOSIUM 5

16:15	Ri technology as a breeding tool to create compact ornamentals	Siel Desmet, Ellen De Keyser, Johan Van Huylbroeck, Danny Geelen, Emmy Dhooghe *
16:30	Flower morphology and biometrical aspects in roLB and ORF13a Kalanchoë blossfeldiana 'Molly' lines	Yan Lin, Nasim Shadmani, Nete Kodahl, Henrik Lütken, Hanne B. Hansen, Bruno Trevenzoli Favero *
16:45	Morphological and molecular characterization of interspecific hybrids (<i>Cosmos atrosanguineus</i> x <i>Cosmos purpureus</i>)	Diana Erika Gómez Pedraza *, Bulmaro Morales Vazquez, Bulmaro Morales Vazquez, Maria Teresa Martínez Damián, Maria Teresa Colinas León, María de Jesús Juárez Hernández

E-POSTER FLASH PRESENTATIONS

Session P1 - Flower physiology, Post-harvests
Screen S05.1
Chair: Fisun Çelikel, OMU, Turkey

Atrium 3 - Screen 1

17:10	Methyl Bromide fumigation on export cut <i>Dendranthema grandiflorum</i> L. affects postharvest qualities	Yen-Hua Chen *, Yu-Hung Hsieh
17:15	Early water absorption in petals causes malformed flower in rose variety 'Yves Piaget'	Rei Kaneeda *, Takashi Handa, Toru Hirose, Chie Yoshida
17:20	Application of harvista to ornamental plant species	Christian Gehl, Julian Wagenhaus, Margrethe Serek *
17:25	Induction and mitigation of BPP in greenhouse cut rose	Jihyeon Seo *, Wan Soon Kim
17:30	Pre- and post-harvest environmental conditions affect the vase life and gray mold of cut roses in smart farm	Young Boon Lee *, Je Yeon Yeon, Wan Soon Kim
17:35	Effects of new bud number on the new bud growth and the storage carbohydrates use in <i>Oncidesa Gower Ramsey</i> 'Honey Angel'	Hsi Lin *, Yao-Chien Alex Chang
17:40	Petal water stress precedes increase of ethylene production in senescence of STS-treated sweet pea	Toru Hirose *, Takashi Handa

Session P1 - Flower physiology, Post-harvests
Screen S05.2
Chair: Johan Van Huylbroeck, ILVO, Belgium

Atrium 3 - Screen 2

17:10	Petal doubling in rose flowers as affected by temperature	Je Yeon Yeon *, Min Ji Kim, Yeong Chan Shin, Wan Soon Kim
17:15	Interaction between vernalization procedure and plant genotype on flowering and metabolism in cut flower tulip	Stefania De Pascale *, Serena Del Gaudio, Giovanna Marta Fusco, Petronia Carillo, Roberta Paradiso
17:20	Rose essential oil from organic roses crop of 'Crown Princess Margareta', 'Falstaff' and 'Brother Cadfael' cultivars	Ana Cornelia Butcaru *, Mariana Dumbrava, Violeta A. Ion, Liliana Aurelia Badulescu, Florin Stanica
17:25	First identification of methyl benzoate and methyl salicylate as major volatile compounds in the floral scent of alstroemeria	Danilo Aros *, Macarena Suazo, Cristina Ubeda
17:30	Application of exogenous gibberellic acid suppresses pigmented and unpigmented marginal picotee formations in cyclamen	Yuki Mizunoe *, Mei Igari, Yukio Ozaki
17:35	Effects of sugar treatment on the vase life of white crane orchid (<i>Calanthe triplicata</i>) cut flowers	Jia-You Tsai *, Pung-Ling Huang, Yi-Yin Do

Session P2 - Production, response to abiotic and biotic stresses
Screen S05.3
Chair: Marta Pizano, Hortitecna, Colombia

Atrium 3 - Screen 3

17:10	The influence of plant hormones on flowering and chlorophyll content of <i>Leucadendron elimense</i> E. Phillips subsp. <i>elimense</i>	Carolyn Wilmot *, Charles Laubscher, Jenny Liedtke
17:15	<i>Hydrangea macrophylla</i> in the light of light: carbohydrate source-sink relationships, leaf vitality and rooting of cuttings	Uwe Druège *
17:20	Novel supplementary lighting protocols for optimising controlled environment horticulture	Margaret Ahmad *, Nathalie Jourdan, Blanche Aguida, Laurence Bourgeois-Racette
17:25	Evaluation of the effect of difference in growing media on photosynthesis and transpiration functions of ornamental plants	Jiaxun Hu *, Shuichi Obayashi, Takano Inoue, Seitaro Toda, Kotaro Takayama
17:30	Investigation of optimum substrate volumetric water content for potted eucalyptus production	Seong Kwang An *, Jongyun Kim
17:35	Effects of monochromatic LED light quality in long-day treatments on flowering in <i>Delphinium</i>	Sugawara Nono *, Numazawa Mei, Nishiyama Manabu, Kato Kazuhisa, Kanayama Yoshinori
17:40	Germination and development of <i>Zamia furfuracea</i> (Zamiaceae) under culture conditions and its relationship with cyanobacteria	Edith Salomé *, Dayan Olmos-Briceño, Nicolás Ivarez-Acevedo, José Guadalupe Landaverde, Roxana Mendoza-Rossano
17:45	Research on the growth and development of «Avatea» tuberose bulbs using a pelletized fertilizer from poultry droppings	Floarea Burnichi *, Emilian Mirea, Dumitru-Mitel Toma, Florin Toma

S6: INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES AND PRODUCTION STRATEGIES FOR SUSTAINABLE CONTROLLED ENVIRONMENT HORTICULTURE

Symposium supported by :



ORAL PRESENTATIONS

Session O6 - Growing media and sustainable use of resources
Chair: James Altland, Ohio Agricultural Research & Development Center, USA

Auditorium - Screen 1

10:30	Keynote: The future of soilless growing media in a growing world	Brian Jackson *
11:00	Evaluating alternative growing substrates to peat for ornamental horticulture.	Olivia Haines *, Ian Dodd, Richard Collins, Sarah Fairhurst
11:15	Cascade utilization pathways for <i>Miscanthus</i> as growing substrate in horticultural production.	Van Thi Hong Nguyen *, Kirsten Geller, Thorsten Kraska, Ralf Pude
11:30	Substrate physical properties: should gas diffusivity and respiration rates be included?	Jean Caron *
11:45	Advances in substrate particle characterization using dynamic image analysis for predicting water retention properties.	Stan Durand *, Brian Jackson, William Fonteno, Jean-Charles Michel
12:00	End-of-life of organic growing media: carbon sequestration versus circular use of nutrients.	Bart Vandecasteele *, Lotte Similon, Julie Moelants, Ewan Gage
12:15	Substrate stratification can be paired with strategic irrigation practices to improve container-water dynamics.	Kristopher Criscione, Jeb Fields *, James Owen

*Indicates presenting author

THURSDAY 18 AUGUST

SYMPOSIUM 6

Session 07 - Soilless cultivation: water and nutrient management
Chair: Jean Caron, Université Laval, Canada

Auditorium - Screen 1

15:30	Keynote: Developments in recirculation of drainage solution for crops on growing media	Chris Blok *, Tommaso Barbagli, Dimitrios Savvas
16:00	Effect of Na concentrations on yield and fruit quality of soilless tomato cultivation with closed-loop irrigation system.	Tommaso Barbagli *, Wim Voogt, Nina Oud, Li Bo, Andrea Diaz Ismael
16:15	Effects of different isosmotic salt solutions on growth, yield and mineral composition of hydroponically-grown <i>Valerianella locusta</i> .	Georgia Ntatsi *, Orfeas Voutsinos, Ioannis Karavidas, Dimitrios Petropoulos, Georgios Zivovris, Dimitrios Fortis, Beppe Benedetto Consentino, Andreas Ropokis, Leo Sabatino, Dimitrios Savvas
16:30	Testing sap-flow sensors to predict irrigation of soilless tomato fertigated with saline water.	Alejandra Juana Navarro García *, Fabio Scotto di Covella, Sonia Cacini, Mirko Sodini, Silvia Traversari, Accursio Venezia, Daniele Massa
16:45	Implementing Internet of Things (IoT) sensor-based precision irrigation with LoRaWAN technology for enhancing yield, quality, and resource use efficiency of soilless basil. REMOTE	Haozhe Zhang, Long He, Francesco Di Gioia *

E-POSTER FLASH PRESENTATIONS

Session P13 - Modulation of yield and quality of horticultural crops in controlled environments
Screen S06.1
Chair: Etienne Chantoiseau, L'Institut Agro, Angers, France

Auditorium - Screen 1

17:10	Effects of short day and temperature on growth and flowering of Vanda hybrid	Soraya Ruamrungsri, Poramet Pechkaow, Chaiartid Inkham, Kanokwan Panjama *
17:15	Prediction of fruit yield and preparation of cultivation map based on growth and flowering parameters of strawberry cultivations in tunnel-type greenhouse	Jung Su Jo *, Dong Sub Kim, Won Jun Jo, Ha Seon Sim, Yu Hyun Moon, Ui Jeong Woo, Soo Bin Jung, Steven Kim, Xiaoming Mo, Su Ran Ahn, Sung Kyeom Kim
17:20	Yield of paste tomato cultivars using Sseason extending high-tunnel production practices in north Dakota's short growing season	Binu Rana, Andrej Svyantek, Collin P. Auwarter, Harlene Hatterman-Valenti *
17:25	Specifying wind speeds causing damage to net-house crops and quantifying effects on tidal damage	Maro Tamaki *

Session P14 - Advances in growing media
Screen S06.2

Chair: Nazim Gruda, University of Bonn, Germany

Auditorium - Screen 2

14:05	Compost and Rice Hulls to increase sustainability of substrates for bedding plants production	GiamPaolo Assist. Zanin *, Carlo Nicoletto, Paolo Sambo
14:10	Wild strawberry production on innovative sediment-based growing media: yield and food safety evaluation	Giacomo Chini, Daniele Bonetti, Francesca Tozzi, Maurizio Antonetti, Simona Pecchioli, Gianluca Burchi *, Grazia Masciandaro, Stefania Nin
14:15	Effect of sediment-based growing media on cut flower production of calla lily	Maria Castellani, Domenico Prisa, Maurizio Antonetti, Francesca Tozzi, Daniele Bonetti, Gianluca Burchi *, Cristina Macci, Stefania Nin

S8: INTERNATIONAL SYMPOSIUM ON ADVANCES IN VERTICAL FARMING

ORAL PRESENTATIONS

Session 01 - Light
Chair: Leo Marcelis, Wageningen University, The Netherlands

Cointreau Room - Screen 1

10:30	Keynote: NASA's Crop Research for Space indoor farming: Some Observations Over the Years	Raymond M. Wheeler *
11:00	Regulation of fruit set by light quality: A case study on pepper	Sijia Chen *, Ep Heuvelink, Leo Marcelis
11:15	Reducing the energy footprint and enhancing the flexibility of indoor growing systems while maintaining a high growth rate: Examination of disruptive cultivation protocols	Dafni Avgoustaki *, Maria Maniati, Christos Vatistas, Thomas Bartzanas
11:30	Adding green or far-red light to an optimized red and blue LED light spectrum	Laura Carotti *, Giuseppina Pennisi, Alessandro Pistillo, Guido Evangelista, Loris Mazzaferro, Ivan Paucek, Giorgio Gianquinto, Francesco Orsini
11:45	Controlling photoperiodic flowering of shortday plants using a dynamic light spectrum	Malleshaiah SharathKumar *, Leo F M Marcelis, Ep Heuvelink
12:00	Fruit vegetables in indoor farming – potential of chili production	Sabine Wittmann *, Ivonne Jüttner, Heike Mempel
12:15	<i>Catharanthus roseus</i> morpho-physiological response to a poly- and dichromatic light spectra in vertical farming systems	Marisa Sofia Coelho Lourenco *, Ep Heuvelink, Susana M. P. Carvalho

Session 02 - Monitoring, phenotyping & climate control
Chair: Oliver Korner, Leibniz Institute of Vegetable and Ornament, Germany

Cointreau Room - Screen 1

15:30	Long-term continuous measurement of photosynthetic and transpiration rates, and material and energy balances of edible crops in a closed cultivation system designed for a lunar-base plant factory	Eiji Goto *, Hideo Yoshida, Shoko Hikosaka
15:45	Vertical farming of challenging crops requires optimized systems and operations: sensors and AI to the rescue	Celine Nicole *, Silvia Booij, Leonie Geerdinck, Marcel Krijn, Yuchong Chen, Mengjie Fan, Pepijn Obels, Rogier Brussee, Jakob de Vlieg
16:00	Plant phenotyping for the growth analysis of individual plants based on cohort research in PFALs	Eri Hayashi *, Toyoki Kozai
16:15	Optimal planting density, effects on harvest time and yield	KC Shasteen, Joseph Seong, Simone Valle de Souza, Chieri Kubota, Murat Kacira *
16:30	Using CFD to improve flow conditions in vertical farms using realistic plant geometries	Wito Plas *, Toon Demeester, Michel De Paepe
16:45	Analysis of environmental uniformity in a generic multi-layer vertical farm: impact of inlet locations	Luyang Kang *, Twan van Hooff

E-POSTER FLASH PRESENTATIONS

Session P1 - Design of vertical farm and space farm
Screen S08.1
Chair: Michael Martin, IVL, Sweden

Cointreau Room - Screen 1

17:10	Design of low cost, open-source growth cabinets for evaluating growing media and crop suitability for space environments	Harry Wright *, Alexis Moschopoulos, Luke Fountain
17:15	Characterization and optimization of photon irradiance distribution in vertical farms	Laszlo Balazs *, Zoltan Dombi, Laszlo Csambalik, Laszlo Sipos
17:20	Cybernetic system controlling plant growth factors	Hsin-Mei Hu *, Alexander Braslavskiy

*Indicates presenting author

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SYMPOSIUM 8

Cabernet Room

Session P2 - Diversity of crops
Screen S08.2
Chair: Akvile Virsile, AMMC, Lithuania

17:10	Production for Halophyte <i>Limonium tetragonum</i> in Vertical Farms	Seongnam Jang *, Ki-Ho Son
17:15	Smart mushroom cultivation in Taiwan	Hsin-Der Shih *
17:20	Development of an indoor farming cultivation system for <i>Rhodiola rosea</i> under the comparison of aeroponic and deep water cultivation as well as the influence of UV-A radiation on specific quality parameters	Nicolas Mauser, Sabine Wittmann, Ivonne Jüttner *, Heike Mempel
17:25	Agronomic growth characteristics and cost price of medicinal plants, <i>Euphorbia peplus</i> and <i>Artemisia annua</i> , in vertical farming	Francoise Bafort *, Ayoub Bouhadada, Nicolas Ancion, Nathalie Crutzen, M. Haïssam Jijakli

Session P3 - Root zone
Screen S08.3
Chair: Susana Carvalho, University of Porto, Portugal

Cointreau Room - Screen 2

17:10	Substrate selection for ebb-and-flow cultivation of sweet basil in a vertical farm	Alessandro Pistillo *, Laura Carotti, Agnese Pennisi, Giorgio Gianquinto, Francesco Orsini
17:15	Root exudation of hydroponic lettuce is stable under different light qualities	Brechtje de Haas *, Eva Oburger, Danny Geelen, Marie-Christine Van Labeke
17:20	Design and development of automatic nutrient sensors for efficient water and nutrient management in vertical farming systems	Heike Mempel *, Murtaza Hasan, Mohamed Bourouah, Markus Abel, Sabine Wittmann, Ivonne Jüttner
17:25	Identification of variations in nutrient uptake ratios of Pak Choi as an indicator for ion specific nutrient management potential	Markus Abel *, Sabine Wittmann, Ivonne Jüttner, Heike Mempel

S9: INTERNATIONAL SYMPOSIUM ON URBAN HORTICULTURE FOR SUSTAINABLE FOOD SECURITY (URBANFOOD2022)

ORAL PRESENTATIONS

Session O3 - Impacts and assessment of urban horticulture on sustainability of food systems
Chair: Kevin Morel, INRAE, France

Giffard Room - Screen 1

10:30	Keynote: Beyond food production: Applying a multifunctional landscape framework in the study of urban agriculture	Sarah Taylor *
11:00	Growing horticultural food produce at home during the pandemic ' who does it and how many are there?	Mira Lehberger *, Kai Sparke
11:15	The multifunctionality of urban agriculture projects in Brussels	Francisco Davila *, Toma Rixen, Noémie Maughan, Marjolein Visser
11:30	The approach to sustainable food security management in the Balkans through urban agriculture	Kristina Maknea *, Julia Nerantzia Tzortzi, Adrian Asanica, Claudia Fabian
11:45	A peri-urban market-gardening territory in transition in Togo's Djablé floodplain: towards agro-ecological practices?	Axel Graner *, Aimé-Félix Dzamah, Komi David Ahovi, Lalaguewé Tchangan, Isabelle Michel
12:00	An audit tool for evaluating food security in urban food systems	Tricia Jenkins *, Eleni D. Pliakoni, Cary L. Rivard, Candice Shoemaker

12:15	Urban community garden practices as indicators of community social resilience	Candice Shoemaker, Kristin Harrison Taylor *, Eleni Pliakoni, Huston Gibson, Matthew Sanderson
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Session O4 - Challenges and innovations in sustainable production at level of farming techniques and production systems

Chair: Charles Laubscher, Cape Peninsula University of Technology, South Africa

Giffard Room - Screen 1

15:30	Keynote: Links between horticultural practices and contribution to food security	Marie Fiers *
16:00	Guidelines to optimize covering and structural materials in a rooftop-integrated greenhouses: an environmental assessment	Xavier Gabarrell Durany, Joan Muñoz-Liesa *, Eva Cuerva, Santiago Gassó-Domingo, Alejandro Josa
16:15	Potential hydroponic cultivation of <i>Tetragonia decumbens</i> Mill. as a new urban food crop: A review	Charles Laubscher *, Milile Nkcukankcuka, Carolyn Wilmot
16:30	Recycling local organic matter in peri-urban horticulture: a case-study in the Parisian region	Kevin Morel *, Léa Boros, Florent Levavasseur, Nicolas Bijon, Lelenda Florent Kebalo
16:45	Preliminary results on N2O emission factor calculation in hydroponic Struvite fertilization of lettuce production	Xavier Gabarrell Durany, Verónica Arcas Pilz *, Gaia Stringari, Ramiro Gonzalez, Gara Villalba
17:00	WASABI: A platform of Walloon innovative Systems for urban Agriculture and Biodiversity	Haïssam Jijakli *

E-POSTER FLASH PRESENTATIONS

Session P1 - Integration of urban horticulture into market, education and policy
Screen S09.1

Chair: Kathrin Specht, ILS, Germany

Giffard Room - Screen 1

17:20	Addressing food insecurity utilizing master gardener volunteers in Ohio	Pamela Bennett *
17:25	Awesome customer service for urban agriculture	Eric Barrett *, Robert Leeds
17:30	Inclusion of people with disabilities in urban agriculture of Vienna. The combined application of grounded theory, action and evaluation research for the development of a social-ecological model	Sophie Schaffernicht *, Elisabeth Quendler
17:35	Managing economically viable innovations to reduce the use of synthetic pesticides: the case of tomato production trials in urban and periurban areas of Ivory Coast	Orianne Signarbieux *, Laurent Parrot, Quevin Oula Pabo, Thibaud Martin, Lassina Fondio, Koné Daouda, Djezou Wadjamse Beaudelaire

Session P1 - Integration of urban horticulture into market, education and policy
Screen S09.2

Chair: Runrid Fox Kämper, ILS, Germany

Giffard Room - Screen 2

17:20	Role of urban horticulture youth programs in promoting identify exploration among inner city youth: A case study for Felege Hiywot Center (FHC)	Kathryn Orvis *, Theoneste Nzaryimana, Mark Russell
17:25	University as a knowledge marketplace: tropical campus design for innovative agricultural education	Pongsakorn Suppakittpaisarn *, Vipavee Surinseng, Chosita Wongmuang, Ekachai Yaipimol, Nadchawan Charoenlerthanakit, Chulalux Wanitchayapaist
17:30	Placing urban agriculture and agroecology in the social, environmental and planning agenda: learning from local/metropolitan policies in Belo Horizonte, Brazil	Heloisa Costa *, Daniela Almeida, Victor Alencar

*Indicates presenting author

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SYMPOSIUM 9

Session P3 - Impacts and assessment of urban horticulture on sustainability of food systems Giffard Room - Screen 3
Screen S09.3
Chair: Charles Laubscher, Cape Peninsula University of Technology, South Africa

17:20	Advances in urban horticulture by means of family-sized aquaponic systems: technical and social aspects	Víctor M. Fernández Cabanás *, Luis Pérez Urrestarazu, Gina P. Suárez Cáceres, Rafael Fernández Cañero, José R. Lobillo Eguibar
17:25	Circular bioeconomy making new sustainable food platform: Commercial aquaponic system developed for Atlantic salmon production in recirculated aquaculture systems together with vegetable production – a CO2 zero concept	Siv Lene Skar *, Mari B. Birkeland, Ole Nordal, Ragnheidur I. Thorarinsdottir
17:30	Introduction of new rooftop greenhouse project in south korea focusing on energy and greenhouse gas reduction for commercial buildings	Sang Min Lee *, Eunjung Choi, Jaehyun Kim, Eun-seok Lee
17:35	Risk assessment for heavy metals in community gardens of the city of Teresina, Brazil	Vito Aurelio Cerasola *, Lucrecia Pacheco Batista, Nicola Michelin, Francesco Orsini, Giuseppina Pennisi, Francineuma Ponciano de Arruda, Gilmo Vianello, Livia Vittori Antisari, Giorgio Gianquinto

S10: INTERNATIONAL SYMPOSIUM ON VALUE ADDED AND INNOVATION MANAGEMENT IN THE HORTICULTURAL SECTOR

ORAL PRESENTATIONS

Session O1 - Innovative ways to add value and signal quality in markets Atrium 2
Chair: Dr. Laurent Parrot, CIRAD, France

15:30	Opening remarks	Syndhia Mathé, David Neven, Giang Duong, Ludovic Temple
15:45	Keynote: What does "good" look like in UK horticultural & food supply chains ?	John Giles *
16:15	Buyer-seller relationships in fresh produce retailing in France	Peter J. Batt *, Eleonore Coyral
16:30	Shades of sustainability - Is there room for a new sustainability label in fruit production?	Heike Zoe Heuschkel *, Eike Luedeling
16:45	Challenges and Strategies: The GAP Certification of Fruits in Taiwan	Wen-Li Lee *
17:00	Communication of sustainability in horticulture - What messages do consumers currently perceive and what expectations do they have regarding sustainability?	Luise Knauber *, Luis Müller, Robert Luer, Wolfgang Lentz

E-POSTER FLASH PRESENTATIONS

Session P1 - Innovative ways to add value and signal quality in markets Atrium 2
Chair: Dr. Laurent Parrot, CIRAD, France

17:20	Supporting market gardening value chain innovations to tackle sustainability challenges in Cameroun : the role of social business	Syndhia Mathé *, Lea Doucet, Noel Azapmo, Ludovic Temple, Nawalyath Soule Adam, Mae Podechard, Thomas Michel, Armel Awah
17:25	Differentiation strategies used by Bordeaux wine producers in the face of international competition	Peter J. Batt *, Juliette-Marie Bodin
17:30	Dissonance in value chains : the case of the domestic vegetable sector in Martinique	Laurent Parrot *, Margaux Varenne

S12: INTERNATIONAL SYMPOSIUM ON WATER : A WORLDWIDE CHALLENGE FOR HORTICULTURE !

ORAL PRESENTATIONS

Session O1 - Irrigation strategies to enhance water management and adapt to climate change Mercure Room - Screen 1
Chair: Alon Ben-Gal, Volcani Center, Israel

10:30	Keynote: Tree water transport dynamics in a changing climate	Kathy Steppe *
11:00	Development of a plant-based RDI strategy for almond in semi-arid area of Apulia (Italy): preliminary results of Almond management innovation (Ami) project	Pasquale Losciale *, Liliانا Gaeta, Andrea Mazzeo, Michele Giannini, Silvia Seripierri, Anita D'Onghia
11:15	Pulsed drip irrigation increases growth and production of northern highbush blueberry and florican-fruited red raspberry on silty and sandy soils	Jesse Carroll *, Shikha Singh, Alexander Gregory, Andrea Retano, Scott Orr, Chris Benedict, Lisa DeVetter, Troy Peters, David Bryla
11:30	Assessment of kiwifruit physiological decline: irrigation and soil management strategy to recover from waterlogging	Roberto Di Biase, Adriano Sofo, Alba Mininni, Marco Mastroleo, Evangelos Xylogiannis, Bartolomeo Dichio *
11:45	Seasonal and diurnal drivers of apple tree transpiration rates assessed by sap flow sensors	Damiano Zanotelli *, Ahmed Ben Abdulkader, Andrea Brignach, Dolores Asensio, Carlo Andreotti, Massimo Tagliavini
12:00	Generation, analysis and optimization of irrigation scenarios: the Optirrig model	Bruno Cheviron *
12:15	Relationship between daily intercepted radiation and tree transpiration in pear	Inigo Auzmendi *, Merce Mata, Jesus del Campo, Gerardo Lopez, Joan Girona, Jordi Marsal

Session O2 - New Technologies for sensing Crop Water Status and precise irrigation scheduling Mercure Room - Screen 1
Chair: Bartolomeo Dichio, University of Basilicata, Italy

15:30	Spatial decision support systems for precision horticultural water management	Alon Ben-Gal *, Aviva Peeters, Noa Ohana-Levi, Idan Bahat, Livia Katz, Hagai Yasuor, Alex Barski, Osher Burkis, Yafit Cohen
15:45	Using micro-tensiometers to manage water stress to maximize fruit size of apple orchards	Luis Gonzalez Nieto *, Annika Huber, Rui Gao, Lailiang Cheng, Abraham D. Stroock, Alan N. Lakso, Terence L. Robinson
16:00	Use of a low-cost soil moisture sensor to reduce irrigation water usage in mild winter climate greenhouses	I. Hakki Tüzel, Jos Balendonck *, Yuksel Tuzel, Golgen Bahar Oztekin, Ulas Tunali
16:15	Irrigation demand model for open field vegetables based on artificial neural networks	Samantha Rubo *, Jana Zinkernagel
16:30	Remote and proximal sensing techniques to support precision irrigation in the olive orchard	Giovanni Caruso *, Giacomo Palai, Letizia Tozzini, Simone Priori, Riccardo Gucci
16:45	Electrophysiological estimation of drought stress in apple trees	Andrzej Kurenda *, Philippe Monney, Thomas Caloz, Alja van der Shuren, Moritz Graef, Nigel Wallbridge, Carrol Plumer

E-POSTER FLASH PRESENTATIONS

Session P1 - New Technologies for sensing Crop Water Status and precise irrigation scheduling Screen S12.1
Chair: Martin Penzel, Thüringer Landesamt für Landwirtschaft und Ländlichen Raum, Germany
Mercure Room - Screen 1

17:10	Using a mobile platform to measure canopy temperature and map plant water status in a nectarine orchard	Alessio Scalisi *, Mark Glenn O'Connell, James Underwood, Ian Goodwin
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*Indicates presenting author

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SYMPOSIUM 12

17:15	Using LiDAR technique and modified Community Land Model for calculating cherry canopy water interception	Manuela Zude-Sasse *, Harby Mostafa, Nikos Tsoulas, Kowshik K. Saha
17:20	Dendrometers in orchards to better manage irrigation and water resources in the face of global warming	Baptiste Labeyrie *
17:25	Selection of proper soil moisture sensors to effectively manage soil water for orchards	Seong Kwang An *, Jongkyun Kim

Session P2 - Strategies to enhance water management and adapt to climate change Screen S12.2

Mercure Room - Screen 2

Chair: Alessio Scalisi, Agriculture Research Victoria, Australia

17:10	Strategic approaches for enhancing water productivity in horticulture	Harishchandra Prasad Singh *, Jai Singh PARIHAR
17:15	Irrigation volume, not placement, determined physiological responses and yield of furrow-irrigated tomato in Ghana	Ian Dodd *, Stephen Yeboah, Patricia Oteng-Darko, Jaime Puertolas
17:20	Knowledge exchange and capacity building of farmers on enhancing water productivity	Harishchandra Prasad Singh *, Babita Singh
17:25	Water Footprint and performance assessment of a table olive cultivar (<i>Olea europaea</i> L. 'Konservolea') under various irrigation strategies	Konstantina Fotia *, George Nanos, Nikolaos Malamos, Markos Giannelos, Paraskevi Mpeza, Ioannis Tsirogiannis

S14: INTERNATIONAL SYMPOSIUM ON SUSTAINABLE CONTROL OF PESTS AND DISEASES

Symposium supported by :



ORAL PRESENTATIONS

Session 05 - Detection and characterization of pests and diseases Chair: Rodrigo Araujo, Universidad Católica del Maule, Chile

Grand Angle Room B - Screen 1

10:30	Keynote: An epidemiological approach for the early detection of plant pests and diseases	Stephen Parnell *
11:00	The spread of the cotton mealybug <i>Phenacoccus solenopsis</i> in the Mediterranean continues in Tunisia	Michele Ricupero *, Khaled Abbes, Ahlem Harbi, Takwa Wanassi, Antonio Biondi, Gaetana Mazzeo, Agatino Russo, Lucia Zappalà, Brahim Chermiti
11:15	The sanitary crisis caused by <i>Xylella fastidiosa</i> , a plant pathogenic bacterium recently discovered in Europe with a focus on the situation in France	Marie-Agnès Jacques *, Enora Dupas, Sophie Cesbron
11:30	Determining the prevalence of geminiviruses in vegetable crops in the Mediterranean	Zineb Belabess*, Monia Mnari-Hattab, Ghandi Anfoka, Martine Granier, Miassar Altaieb, Gian Paolo Accotto, Massimiliano Ballardini, Umberto Bernardo, Meryem Ennily, Salvatore Davino, Fatima Haj Ahmad, Nihed Jerbi, Asma Laarif, Daniele Marian, Slavica Matic, Giuseppe Mazza, Laura Miozzi, Abderrahmane Nazih, Emanuela Noris, Francesco Nugnes, Youness Taarabt, Abdessalem Tahiri, Cica Urbino, Takoua Zaagueri, Michel Peterschmitt, Anna Maria Vaira

11:45	Development and application of the propagation system of specific-virus-free plants of <i>Passiflora</i> spp. in Taiwan	Chin-Chih Chen *, Wen-Li Lee
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Session 03 - Natural and synthetic compounds for pest and weed control Chair: Olle Anderbrant, Lund University, Sweden

Grand Angle Room B - Screen 1

15:30	2-Pentylfuran reduces lure attractiveness in the field and fruit infestation by <i>Drosophila suzukii</i> in laboratory no-choice experiments	Louis Sutter *, Marie Terretaz, Mélanie Quennoz, Danilo Christen
15:45	Postharvest control of the grain chinch bug, <i>Macchiademus diplopterus</i> : physiological complexities and its impact on fruit export	Renate Smit *, Shelley Johnson
16:00	Essential oils as alternative of synthetic herbicides for horticultural crops	Bérénice Foncoux *, Sofiene Ben kaab, Simon Dal Maso, M. Haïssam Jijakli
16:15	Drying plant oils as biorationals in sustainable plant protection	Thorsten Kraska *, Vera Breiing, Ulrike Steiner, Michael Petry, Ralf Pude

E-POSTER FLASH PRESENTATIONS

Session P4 - Alternative control methods II Screen S14.1

Grand Angle Room B - Screen 1

Chair: Jonathan De Mey, Belgium

17:10	Resistance monitoring and control strategies to support precision plant protection in horticultural crops in Crete	Aris Ilias, Konstantinos Mavridis, Kyriaki Varikou, Emmanuel Markakis, Kyriaki Maria Papapostolou, Marianna Stavrakaki, Anastasios Malandrakis, Emmanuel Roditakis, John Vontas, Anastasia Tsagkarakou *
17:15	Development and optimization of above canopy distribution system for disease control in apple orchard	Luca Corelli-Grappadelli, Irene Donati, Claudia Onofrietti, Antonio Cellini, Gianmarco Bortolotti, Luigi Manfrini, Francesco Spinelli *, Michele Preti
17:20	Integrated pest management practices to control basil downy mildew (<i>Peronospora belbahrii</i>) under field trial conditions	Patricia Schwitter, Joelle Herforth-Rahmé *, Samuel Hauenstein, Martin Koller, Hans-Jakob Schaerer
17:25	Investigation of the <i>Verticillium</i> wilt pathosystems in horticultural plants to develop novel control methods for it	Megumi Araya *, Ningning Zhang, Toshiyui Usami
17:30	Providing insect activity forecast to growers using automated traps network, deep learning and neural networks	Vincent Joly *, Mateja Stefancic, Matej Stefancic
17:35	Application of aquaponic microorganisms alone or in consortium as original biocontrol method of lettuce root rots in soilless culture	Iris Szekely *, Gilles Stouvenakers, Sébastien Massart, Haïssam Jijakli

Session P5 - Detection and characterization of pests and diseases III Screen 14.2

Grand Angle Room B - Screen 2

Chair: Perrine Portier, INRAE IRHS, France

17:10	Increasing integrated pest management (IPM) knowledge for ornamental plant enterprises	Elizabeth Vassilaros *
17:15	First characterization of <i>Botrytis cinerea</i> isolates from main producing blueberry area of Perú	Andres V. Casas Diaz *, Elias Tauma, Olenka Alberca, Alexis Dueas, Liliana Aragon, Walter Apaza, Heidi Huarhua, Luz Ccoscco
17:20	Combining canines and laboratory technologies in citrus huanglongbing surveys	Peggy Mauk *, Georgios Vidalakis, William Schneider, Carolyn Slupsky, James Borneman, Esteban Rodriguez, Sohrab Bodaghi, Tyler Dang, MaryLou Polek
17:25	Hyperspectral analysis for the detection of diseases and stresses in <i>Malus x domestica</i>	Cameron Cullinan *, Katrin Janik, Ulrich Preschtl

*Indicates presenting author

THURSDAY 18 AUGUST

SYMPOSIUM 14

Session P6 - Genetics and mechanisms underlying plant resistance and pathogen virulence II

Screen S14.3

Chair: Katie Stevens, University of Birmingham, United Kingdom

Grand Angle Room B - Screen 3

17:10	Beneficial soil microbes to enhance tomato resistance against arthropod pests	Konstantinos Samaras, Paraskevi Ntalia, George Broufas, Maria Pappas *
17:15	Screening of sweet pepper genotypes for resistance to <i>Colletotrichum fructicola</i> , the predominant pathogen associated with fruit anthracnose under protective cultivation in Taiwan	Zong-ming Sheu *, Ming-Hsueh Chiu
17:20	Evaluation of the resistance of apple cultivars to <i>Diplocarpon coronariae</i>	Sophie Richter *, Thomas Wöhner, Monika Höfer, Anne Bohr, Henryk Flachowsky, Sascha Buchleither
17:25	Downy mildew evaluation in wild rocket genotypes [<i>Diplotaxis tenuifolia</i> (L.) DC.] under field and controlled condition	Paula Coelho *, Ana L Pereira, João Reis, Corina Carranca, Violeta Lopes, José M Leitão
17:30	Control of <i>Heterodera carotae</i> in soil by a resistant carrot genotype	Olivier Vimont *, Laure Barrot, Stéphanie Mallard, Julien Sacré

S16: INTERNATIONAL SYMPOSIUM ON INNOVATIVE PERENNIAL CROPS MANAGEMENT

ORAL PRESENTATIONS

Session O2 - Innovations towards orchard optimization - II - tree architecture and modeling

Chair: Luigi Manfrini, University of Bologna, Italy

Open Garden Room - Screen 1

10:30	Keynote: Agrivoltaic systems: an innovative technique to protect fruit trees from climate change	Gerardo Lopez Velasco *, Jérôme Chopard, Severine Persello, Perrine Juillion, Vincent Lesniak, Gilles Vercambre, Michel Génard, Damien Fumey
11:00	Analysis and modelling of tree shading impacts on apple fruit quality: Case study with an agrivoltaic system	Perrine Juillion *, Gilles Vercambre, Gerardo Lopez, Damien Fumey, Vincent Lesniak, Michel Génard
11:15	Innovation in tree fruit production system sustainability through horticultural engineering: case studies	Gregory A. Lang *
11:30	Studying spatial variability of fruit size within the tree canopy with a functional-structural plant model	Inigo Auzmendi *, Jim Hanan
11:45	Light detection and ranging (LiDAR) to characterise apple tree canopies	Nils Siefen *, Ana Maria Vogel, Roy McCormick, Konni Biegert
12:00	Modelling fruit trees in agroforestry systems: an attempt to upscale from tree to system scale	Nicolas Barbault *, Christian Dupraz, Pierre-Eric Lauri, Marie Gosme

Session O2 - Innovations towards orchard optimization - II - tree architecture and modeling

Chair: Ken Breen, Plant&Food Research, New Zealand

Open Garden Room - Screen 1

15:30	Advances in precision crop load management of apple	Terence L. Robinson *
15:45	Apple russeting: the contribution of vascular and transpiration flows in the early fruit growth development stages	Davide Lambertini, Brunella Morandi, Stefano Tartarini, Luigi Manfrini *
16:00	The effect of environment and canopy manipulation on the development of red flesh colour in apple	Ken Breen *, Anna Tattersall, Bouche Jacques-Joseph, Kate Colhoun, Jason Johnston
16:15	A model of water and carbohydrate transport in fruit-bearing apple tree branches: effect of pruning-induced modifications in architecture	Gerhard Buck-Sorlin *, Aleksis Tavkhelidze, Winfried Kurth

16:30	Multi-Year evaluation of insect exclusion netting on apple fruit set and the carry-over effect on seed formation, fruit size and fruit shape	Mokhles ELsyy *, Todd Einhorn
16:45	Uniformity of fruit maturity and quality from different wood types within dwarfed kiwifruit canopies	Adam Friend *, Aljaz Medic, Ben van Hooijdonk, Matthew Punter, Anna Tattersall, Jess Bryne, Jason Johnston

E-POSTER FLASH PRESENTATIONS

Session P1 - Innovations towards orchard optimization - I - horticultural system and plant material

Screen S16.1

Chair: Madeleine Peavey, Centre for Agricultural Innovation, Australia

Open Garden Room - Screen 1

17:10	Fixed spraying system PulVeFix: a future way to apply Plant Protection Products in apple orchards?	Florence Verpont *, Sébastien Baillon
17:15	Apple orchard row orientation and light exposure to optimise quality and yield of apple fruit	Madeleine Peavey *, Lexie McClymont, Alessio Scalisi, Ian Goodwin
17:20	What makes the difference between apple cultivars which are 'easy' and 'hard' to thin with metamitron?	Mekjell Meland *, Milica Fotiric Aksic, Tomislav Tosti, Zivoslav Tesic, Frank Maas
17:25	Impact of preharvest plant growth regulators and reflective groundcovers on Honeycrisp skin coloration and fruit maturity	Tekan Rana, Macarena Faruch *

Session P1 - Innovations towards orchard optimization - I - horticultural system and plant material

Screen S16.2

Glenn C. Wright, University of Arizona, United States of America

Open Garden Room - Screen 2

17:10	Crop load management on apples: alternatives to carbaryl and an organic thinning option on the Uruguay conditions	Bruno Carra *, Poliana Francescato, Pablo B. Rodríguez, Danilo Cabrera, Marcelo Falero, Maximiliano Dini
17:15	The influence of cultivation technologies on half-highbush blueberry (<i>Vaccinium × atlanticum</i> syn. <i>V. corymbosum × V. angustifolium</i>) yield	Leila Mainla *, Angela Koort, Kadri Karp, Mariana Maante-Kuljus, Ulvi Moor, Priit Pldma
17:20	Current yield, packout and fruit quality results from four lemon scion trials in California	Glenn C. Wright *, Tracy Kahn, Mikeal Roose
17:25	Revealing the New Mexico pecan root-soil microbiome to improve plant health and productivity	Richard Heerema *, Nicole Pietrasiak, Jennifer Randall, Andrew Dominguez

Session P1 - Innovations towards orchard optimization - I - horticultural system and plant material

Screen S16.3

Chair: Martin Penzel, TLLLR, Germany

Open Garden Room - Screen 3

17:10	Cultivation trials of hop (<i>Humulus lupulus</i> L.) in a Mediterranean environment	Roberto Marceddu *, ALESSANDRA CARRUBBA, MAURO SARNO
17:15	Grafting type of Pi-Ku 1 rootstocks did not affect overall performance of sweet cherry trees	Martin Penzel *, Monika Möhler
17:20	Application of top-grafting pear cultivation in the tropical area of Taiwan	YungChou Lin *
17:25	Study of some physiological parameters in the plum cultivars JojoTopgigant Plus (<i>Prunus domestica</i> L.), grafted on the clonal rootstock Docera (<i>P. domestica</i> × <i>P. cerasifera</i>)	Nataliya Dimitrova *, Marieta Nesheva, Diyana Aleksandrova, Liliyana Nacheva

*Indicates presenting author

THURSDAY 18 AUGUST

S18: III INTERNATIONAL SYMPOSIUM ON MECHANIZATION, PRECISION HORTICULTURE, AND ROBOTICS: PRECISION AND DIGITAL HORTICULTURE IN FIELD ENVIRONMENTS

Symposium supported by :



ORAL PRESENTATIONS

Session 02 - Imaging based diagnosis

Botanical Room - Screen 1

Chair: Hadhami Garbougé, University of Angers, France

10:30	Evaluating different multispectral vegetation indices for assessing the N status of white cabbage (<i>Brassica oleracea</i>) under organic farming conditions	Felix Besand *, Kai-Uwe Katroschan
10:45	Vis/NIR Spectroscopy is a Promising Tool to Predict Fruit Set and Chemical Thinner Response	James Larson *, Thomas Kon
11:00	VIS/NIR spectra of 'Gala' apples grown under different protection covers and irrigation	Konni Biegert *, Roy McCormick, Peter Braun
11:15	In-field detection of a multi-symptom grape vine disease by proximal sensing and artificial intelligence	Malo Tardif *, Ahmed Amri, Barna Keresztes, Aymeric Deshayes, Marc Greven, Jean-Pierre Da Costa
11:30	Deep Learning-based open set domain adaptation for plant disease recognition across multiple greenhouse environments	Alvaro Fuentes *, Sook Yoon, Jaehwan Lee, Taehyun Kim, Dong Sun Park

Botanical Room - Screen 1

Session 03 - Industry and robotic

Chair: Sindhuja Sankaran, Washington State University, USA

11:45	Keynote: The smart orchard of the future	Ines Hanrahan *, Joe Davidson, Lav Khot
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Botanical Room - Screen 1

Session 03 - Industry and robotic

Chair: Sindhuja Sankaran, Washington State University, USA

15:30	Using Green Atlas Cartographer to investigate orchard-specific relationships between tree geometry, fruit number, fruit clustering, fruit size and fruit colour in commercial apples and pears	Alessio Scalisi *, Lexie McClymont, Madeleine Peavey, Peter Morton, Steve Scheduling, James Underwood, Ian Goodwin
15:45	Developing a digital twin of apple production and supply chain ecosystems	A. J. Mawson, Jill Stanley *, J. Zhu, D. E. Pattemore, K. M. Chooi, R. J. Oliver, H. T. Lin, F. R. Harker
16:00	Precision fruticulture in Flanders - A four year study on sensing techniques, data analysis and variable rate applications	Joke Vandermaesen *, Stephanie Delalieux, Bjorn Rombouts, Yannick Smedts, John Bal, Dany Bylemans, Serge Remy
16:15	Trektor: a robotic solution for a complete agricultural cycle in spinach cultures	Clément Aubry-Tardif *, Fabien Arignon
16:30	BIPBIP: a mechanical and automated intra-row weeding solution	Marine Louargant *, Louis Lac, Jean-Pierre Da Costa, Marc Donias, Barna Keresztes, Hugo Gimbert, Steve N'Guyen, Emmanuel Labriffe, Laure Bondu, Florentin Kaçar
16:45	Recent work on robotic pruning of upright fruiting offshoot cherry systems	Joseph Davidson *, Alex You, Woo Hyun Maeng, Achyut Paudel, Ramya Jayaraman, Ashley Thompson, Manoj Karkee, Cindy Grimm

E-POSTER FLASH PRESENTATIONS

Session P1 - Image Based Diagnosis

Screen S18.1

Chair: Nikos Tsoulas, ATB Potsdam, Germany

Botanical Room - Screen 1

17:10	Remote sensing tools to assist in phenotyping canopy architecture in pear rootstock breeding program	Sindhuja Sankaran *, Mugilan Raman, Zara York, Eduardo Carlos, Soon Li Teh, Kate Evans
17:15	Machine learning approach for automatic recognition of tomato-pollinating bees based on buzzing-sounds	Jose Neiva Mesquita Neto *, Alison Ribeiro, Nádia Felix Felipe, Fernanda Mesquita, Priscila Araújo, Thierson Rosa
17:20	Automatic flowering and apple detection in orchard with computer vision and machine learning	David Rousseau *, Mouad Zine El Abidine, Ali Ahmad

Session P1 - Image Based Diagnosis

Screen S18.2

Chair: Changying Li, University of Georgia, USA

Botanical Room - Screen 2

17:10	Development of a vision and image analysis system to evaluate the natural regulation of crop pests	Jean-Michel Ricard *, Gilles Sentenac, Anne Guerin, Paul Masquin, Alain Ferre, Alicia Fougère, Véronique Tosser, Jonathan Marks-Perreau, Thierry Corbière, Gwenaél Duclos, Antoine Gardarin, Laeticia Girerd
17:15	Detection of narrow-leaved weeds in chickpea based on visible remote sensing	Lorena Parra, David Mostaza *, Jaime Lloret, Sandra Sendra, José Marin, Pedro V. Mauri Ablanque
17:20	Multi-scale image and feature field pea dataset fusion for remote sensing applications in phenomics	Sindhuja Sankaran *, Afef Marzougui, Rebecca McGee, Stephen Van Vleet
17:25	Exploratory analysis on pixel-wise evaluation metrics for plant segmentation	Paul Melki *, Jean-Pierre Da Costa, Lionel Bombrun, Estelle Millet, Boubacar Diallo, Hakim ElChaoui

S20: INTERNATIONAL SYMPOSIUM ON THE VITIVINICULTURAL SECTOR: WHICH TOOLS TO FACE CURRENT CHALLENGES?

ORAL PRESENTATIONS

Session 01 - Sustainable management and conservation of the vineyard and its soils

Chair: Etienne Neethling, ESA, France

Amphitheatre Volney

10:30	Keynote: Sustainable soil management	Cornelia Rumpel *
11:00	Screening of cover crop species for sustainable vineyard floor management	Caterina Capri *, Andrea Fiorini, Alice Richards, Matteo Gatti, Stefano Poni
11:15	Consequences of late leaf removal on the upper part of the canopy on grapevine water status and grape characteristics of <i>Vitis vinifera</i> cv Pinot N	Benjamin Bois *, Lucie Schroeder, Marius Orega, Catinca Gavrilescu, Yixin Zhang, Anne-Lise Santoni, Sébastien Nicolas, Louis Delelee, Olivier Mathieu
11:30	UAV multispectral imagery and deep learning algorithms to map water stress in vineyards	Carlos Poblete-Echeverría *, Jaco Luus, Anke Berry, Danie Els, Melane Vivier
11:45	Sustainable management of vineyard soils: an experimental approach to investigate responses of the edaphic arthropods community	Isabella Ghiglieno *, Anna Simonetto, Giorgio Sperandio, Elia Lipreri, Fabio Gatti, Pierluigi Donna, Marco Tonni, Leonardo Valenti, Gianni Gilioli
12:00	Effect of irrigation and intra-vineyard soil variability on vegetative growth, yield and berry quality of grapevines cv. Sangiovese	Giacomo Palai *, Simone Priori, Claudio D'Onofrio, Riccardo Gucci, Letizia Tozzini, Giovanni Caruso
12:15	Development of a micro-NIR and SAW nanobiosensor to measure polyphenols in must/wine on-time and on-line	Fabio Mencarelli *, Andrea Bellincontro, Raffaele Cerreta, Angela Zinnai, Isabella Taglieri, Chiara Sanmartin, Marco Cecchini, Matteo Agostini, Mariacristina Gagliardi

*Indicates presenting author

THURSDAY 18 AUGUST

SYMPOSIUM 20

Session 02 - Breeding, characterization and preservation of grapevine genetical diversity
Chair: Alejandro Fuentes Espinoza, OIV, France

Amphitheatre Volney

15:30	Keynote: preservation and improvement of grapevine genetical diversity	Gregorio Munoz Organero *
16:00	Certification of grapevine polyclonal propagation material: a reality in Portugal	Katia Teixeira *, Elsa Gonçalves, Paula Carvalho, Antonio Graça, Antero Martins
16:15	Moderately increased temperature during berry growth and ripening impacts phenolic compounds accumulation in <i>Vitis</i> sp	Karine Pedneault *, Guillaume Sarrailhé, Mayank Pathak, Joana Pico Carbajo, Francisco Campos, Paméla Nicolle, Martine Dorais, Nicholas J.B. Brereton, Frédéric Pitre, Simone Castellarin
16:30	Du vignoble au verre: the current state of robust grape varieties in Switzerland	Kathleen Mackie-Haas *, Lina Künzler, Marie Blackford, Thierry Wins, Franziska Hoffet
16:45	Enhancing climate change resilience using intra-varietal diversity: Case of Chenin Blanc in the middle Loire Valley	Etienne Neethling *, Cécile Coulon-Leroy, Etienne Goulet, Virginie Grondain
17:00	Setting up new tools to reduce the duration of the grapevine breeding process in the first French private breeding company	Camille Mietton *

E-POSTER FLASH PRESENTATIONS

Session P1 - Sustainable management and conservation of the vineyard and its soils
Screen S20.1
Chair: Benjamin Bois, Université de Bourgogne, France

Room 05

17:15	Copper phytoextraction ability of green manure plants in vineyard soils	Pierre Eon *, Thierry Robert, Jean-Pascal Goutouly, Laurent Delière, Violette Aurelle, Laurence Denaix, Jean-Yves Cornu
17:20	Chemometric analysis for the classification, pattern recognition and clustering of monovarietal 'Xinisteri' wines based on their vintage and vineyard management	George Manganaris *, Diamando Kokkinou, Andrea Pavlou
17:25	The effect of water stress deficit on physiological, biochemical and qualitative indices of 'Xynisteri' grapes	George Manganaris *, Egli Georgiadou, Vassilis Fotopoulos, Minas Mina, Stefanos Koundouras, Andrea Bellincontro, Fabio Mencarelli, Claudio D' Onofrio

S22: INTERNATIONAL SYMPOSIUM ON NATURAL COLORANTS FROM PLANTS

ORAL PRESENTATIONS

10:30	Introduction to the symposium and presentation of Day tour 'Innovations in natural dyes and horticulture'	Anne de la Sayette, Riikka Räisänen, Dominique Cardon
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Session 01 - Growing Better Color: Agronomic, genetic and farming studies
Chair: Rowland Ricketts, Eskenazi School of Art Bloomington, USA

Amphitheatre Inca

10:45	Keynote: Colour cultures : Dye plants and animals, a global intangible heritage with a future	Dominique Cardon *
11:15	Cultivation study for Shikon (<i>Lithospermum erythrorhizon</i>), purple dye and traditional medicine	Mareshige Kojoma *
11:30	Toward a precise genetic strategy to regulate anthocyanin accumulation in carrot for improving its application in the natural food colorant industry	Massimo Iorizzo *, Julien Curaba, Vincenzo D'Amelia, Marti Pottorff, Mario Ferruzzi, Philipp Simon, Pablo Cavagnaro
11:45	Conservation of natural dyes in Tay Nghe an biosphere reserve, Vietnam	Ngoc Anh Luu-dam *, Dominique Cardon

12:00	Large scale cultivation of dye plants: the example of madder (<i>Rubia tinctorum</i> L.) and weld (<i>Reseda luteola</i> L.)	Florent Glatard *, Anne de la Sayette
12:15	Environmental and propagation factors influencing yield and alizarin content in <i>Rubia tinctorum</i> L. (Madder) roots	Keiri Winnie Swann *

Amphitheatre Inca

Session 02 - Analyzing Global Dyes and Colorants: Specific plants, specific places
Chair: Ngoc Anh Luu - Dam, National Museum of Nature, Vietnam

15:30	Keynote: Promoting dye-sorghum for local and global markets	Polycarpe Kayodé *, Rob Nout, Anita Linnemann
16:00	HPLC analyses of indigoids and related compounds in selected indigo-producing plants	Zvi Koren *, Dominique Cardon, Hisako Sumi, David Santandreu, Aboubakar Fofana, Charlotte Kwon, Tim McLoughlin, Iris Bremaud
16:15	The Hunter Shirt: The role of <i>Acacia nilotica</i> in fermentative textile dyeing	Laurence Douny *, Regine Hengge, José Ignacio Hernandez Lobato, Salif Sawadogo
16:30	New sources of natural colorants for the industries from Madagascar Island dye plants	Mahery Andriamanantena *, Pascal Danthu, Fanjaniaina Fawbush-Razafimbelo, Béatrice Raonizafimanana, Thomas Petit, Yanis Caro
16:45	Natural ingredient development using amazonic purple yam (<i>Dioscorea trifida</i> L.f var. <i>morada</i>)	Maria Soledad Hernandez *, William Quintero, Marcela Carrillo, Kimberly Lozano, Luisa Orduz, Juliana Cardona
17:00	Reunion Island, a tropical hotspot with enormous technological potential for natural sources of plant pigments	Shamsia Pithon *, Mahery Andriamanantena, Christophe Lavergne, Manon Dijoux, Thomas Petit, Yanis Caro
17:15	Standardized evaluation method of tinctorial plant - The case of <i>Punica granatum</i>	Amelie Braye *, Christine Brunet, Anne de la Sayette

E-POSTER FLASH PRESENTATIONS

Session P1 - Analyzing Global Dyes and Colorants: Specific plants, specific places
Screen S22.1
Chair: Ngoc Anh Luu - Dam, National Museum of Nature, Vietnam

Amphitheatre Inca

17:30	The natural colorants of <i>Crocus sativus</i> L. flower	Stefania Stelluti *, Matteo Caser, Sonia Demasi, Valentina Scariot
17:35	Towards the intensification of natural dyes extraction	Alix Gombert *, Christelle Harscoat-Schiavo, Christine Brunet, Arnaud Fertet, Pascale Subra-Paternault, Anne de la Sayette, Raphaëlle Savoire
17:40	Stabilization of luteolins from weld (<i>Reseda luteola</i> L.) and sawwort (<i>Serratula tinctoria</i> L.) by microencapsulation for natural dyeing	Dr. Maria do Carmo Martins Serrano, INIAV, Oeiras, Portugal

S23: INTERNATIONAL SYMPOSIUM ON POSTHARVEST TECHNOLOGIES TO REDUCE FOOD LOSSES

ORAL PRESENTATIONS

Session 07 - Reducing postharvest Losses
Chair: Christian Chervin, Université de Toulouse, France

Amphitheatre Pocquet

10:30	Keynote: Zero Loss Centers: model for postharvest loss reduction and better market access for smallholder horticultural farmers	Jane Ambuko Lukhachi *, Emmanuel Amwoka, Margaret Hutchinson, Willis Owino
11:00	Off-grid cooling and refrigeration: Technical innovations for the storage of perishables for smallholder farmers	Randolph M. Beaudry, Sangeeta Chopra *, Rohit Sharma, Norbert Mueller, Sameer Dhingra
11:15	The Horticulture Quality and Food Loss Network (HortQFLNet): expanding beyond the UK	Carol Wagstaff *, Leon Terry, Sofia Kourmpetli

*Indicates presenting author

THURSDAY 18 AUGUST

SYMPOSIUM 23

11:30	Postharvest handling practice in the South Pacific and its implications on local food systems	Steven Underhill *, Salesh Salesh, Leeroy Joshua, Soane Patolo jr., Sarah Burkhart
11:45	Fresh Produce Safety Centre Australia-New Zealand delivers innovation and outreach through co-design with industry	Robyn McConchie *, Emma Walters, Michael Worthington
12:00	Scaling the University of California at Davis' DryCard	Archie Jarman *, Elizabeth Mitcham, Erin McGuire

Session 08 - Quality change and postharvest management
Chair: Sukhvinder Pal Singh, NSW-DPI, Australia

Amphitheatre Pocquet

15:30	Effects of post-harvest storage conditions on flavor-related volatiles and fruit taste quality of five greenhouse tomato varieties produced during wintertime	Emilie Haugvaldstad, Henk Maessen, Dmitry Kechasov *
15:45	The role of plant growth regulators during onion dormancy break and sprout elongation	Maria Del Carmen Alamar Gavidia *, Zoltan Kevei, Andrew J Thompson
16:00	Effects of xanthan gum and calcium ascorbate treatments on colour and nutritional quality of fresh cut pear fruit	Alessio Allegra *, paolo inglese, Vittorio Farina, Eugenia Guccione, Giuseppe Sortino
16:15	Effectiveness of plastic pallet covers to shift the marketing period of fresh wild blueberries	Arturo Duarte-Sierra *, Deepak Kumar Jha
16:30	Postharvest prevalence of the herbaceous off-flavor in 'Regina' sweet cherry from central and southern Chilean producers	Juan David Villavicencio *, Juan Pablo Zoffoli, Carolina Contreras
16:45	Lower concentrations of 1-MCP require longer exposure times to inhibit apple fruit ripening	Randolph M. Beaudry *, Nobuko Sugimoto, Philip Engelgau

E-POSTER FLASH PRESENTATIONS

Session P11 - Food Losses
Screen S23.1
Chair: Leon Terry, Cranfield University, UK

Amphitheatre Pocquet

17:10	An exploratory study of lacto-fermentation practices in Moldova	Daniel Kalnin *, Marc Oswald, Marine Durrenwachter, Morgane Ravaillault, Chloé Latapie, Augustine Remy, Mélissa Leroux, Elisa Fage
17:15	Phytochemical screening of cocoa (<i>Theobroma cacao</i> L.) leaves	Patrick Kumah *, Samuel Ampofo, Irene A. Idun
17:20	Efficacy of drying methods on shelf life and quality of tomato (<i>Solanum Lycopersicum</i> L.) fruits in makurdi, benue state	Ngozi Ifeoma Odiaka *, Moses Tyokyaa Nyam
17:25	Characterization of freeze-dried basil used as aromatic ingredient to enrich the nutritional quality of food	Andreea Stan *, Violeta Ion, Mihai Frîncu, Andrei Petre, Viorica Lagunovschi-Luchian, Florin Nicolau, Liliana Badulescu

S24: IX INTERNATIONAL SYMPOSIUM ON HUMAN HEALTH EFFECTS OF FRUITS AND VEGETABLES - FAVHEALTH2022

ORAL PRESENTATIONS

Session 01 - Food and nutritional security
Chair: Kaleab Baye, University Addis Ababa, Ethiopia

Amphitheatre Lagon

10:30	Keynote: Nutritional and health attributes of fruits and vegetables: beneficial food security	Bhimanagouda S. Patil *
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11:00	A locally-led, globally-supported approach to advancing horticulture for healthy diets	Elizabeth Mitcham *, Erin McGuire, Archie Jarman
11:15	Mainstreaming traditional local fruits and vegetables for nutrition and income in transforming food systems in Kenya and Ethiopia (MUSE)	Peter Biu Ngigi *, Marie Josephe Amiot-Carlin, Dominique Pallet, Claire Mouquet-Rivier, Céline Termote
11:30	The power of plant proteins in human diet: what do we know about their digestibility?	Amel Hedhili *, Mathieu GUILLEVIC, Marie DUFRECHOU
11:45	Tryptophan, serotonin, and melatonin in banana cultivars during different ripening stages	Mengdi Wu *, Melissa Fitzgerald, Tim O'Hare
12:00	Keynote: Impacts of organic food consumption on human health: where do we stand?	Julia Baudry *

Session 02 - Consumer perception, behaviour, health status
Chair: Tim O'hare, The University of Queensland, Australia

Amphitheatre Lagon

15:30	Keynote: Fruit and vegetable intake and the risk of cardiovascular disease, cancer and all-cause mortality - a systematic review and dose-response meta-analysis of prospective studies» FOR FENS	Dagfinn Aune *
16:00	Who is fortunate enough to eat their fruits and veggies?	Erin McGuire *, Robert Jarman, Elizabeth Mitcham
16:15	The Food Boost Challenge: a social innovation designed for stimulating adolescents into consuming more fruit and vegetable products	Machteld van Lieshout *, Wendy Scholtes-Bos, Judith van der Horst, Puck van Holsteijn, Sanne de Vries

E-POSTER FLASH PRESENTATIONS

Session P1 - Food and nutritional security, food Qualities
Screen S24.1
Chairs: Kaleab Baye, University Addis Ababa, Ethiopia & Tim O'hare, The University of Queensland, Australia

Room 302

17:00	Obtaining protein isolates from quinoa (<i>Chenopodium quinoa</i> : Variety Blanca Junin) for use in high protein supplements	Maria Soledad Hernandez *, Carina Gutierrez, Mary Lares, Jorge Sandoval
17:05	Ancient Indian knowledge on fruits and vegetables for health & nutrition	Harishchandra Prasad Singh *, Babita Singh
17:10	Iodine biofortification of apples by means of foliar fertilization is affected by the fruit position in the tree canopy	Diemo Daum *, Christoph Budke, Maximilian Kellershoff
17:15	Effects of selenium biofortification on the quality characteristics and storability of apples	Diemo Daum *, Christoph Budke, Daniel Neuwald
17:20	Comparison of some fruit quality parameters between fresh and lyophilized fruit samples of strawberries during ripening stages	Nesibe Ebru Kafkas *, ipek Degirmenci, Sule Hilal polat, duygu ayvaz sönmez, Gozde Nogay
17:25	Consumer attitudes towards apples with low allergenicity and other health-related properties	Diemo Daum *, Tabea Isabel Hinz, Christian Frank, Christoph Budke, Ulrich Enneking
17:30	Perceptions of German consumers regarding methods for fortifying foods with iodine	Ann-Kristin Welk *, Diemo Daum, Ulrich Enneking
17:35	Drying method alters the proximate nutrients composition of <i>Moringa oleifera</i> leaves	Bahlebi Eiasu *, Asanda Sokombela

*Indicates presenting author

FRIDAY 19 AUGUST

08:30 - 10:00

PLENARY SESSION 4: FOOD, HUMAN HEALTH AND WELL-BEING OF CITIZENS

KEYNOTE SPEAKERS : Jennie Macdiarmid and Boitshepo "Bibi" Giyose

S01: INTERNATIONAL SYMPOSIUM ON BREEDING AND EFFECTIVE USE OF BIOTECHNOLOGY AND MOLECULAR TOOLS IN HORTICULTURAL CROPS

Symposium supported by :



ORAL PRESENTATIONS

Session 09 - Breeding and markers in horticultural crops II

Amphitheatre Jardin - Screen 1

Chairs: Simone Buehlmann-Schuetz, Agroscope, Switzerland and Patcharaporn Suwor, KMITL, Thailand

10:30	Lettuce cultivated in a nutrient film technique (NFT) hydroponic system display variable tocopherol and phyloquinone content	German Sandoya-Miranda *, Gilles Basset, Robert Hochmuth, Wanda Laughlin
10:45	Phenotyping and genotyping of strawberry cultivars for agronomic and disease resistance traits	Kawtar Ziane *, Mustapha Arbaoui, Nouredine Chtaina, Abderrakib ZAHID, Lamiae Ghaouti
11:00	Rapid papaya crop improvement through accelerated in vitro breeding and molecular diagnostics	Puthiyaparambil Josekutty *, Candy MacLaughlin, Mark MacLaughlin, Paul Fagg, Marion MacLaughlin, Ian MacLaughlin, Nitin Mantri
11:15	Heterosis of six F1 hybrids chili varieties to anthracnose disease (<i>Colletotrichum acutatum</i>) at green fruit stages	Patcharaporn Suwor *, Patcharapan Sangarun, Kanjana Saetie, Wen Shi Tsai, Suchila Techawongstien, Tanyarat Tainta, Sanjeet Kumar, Nakarin Jeeartid, Orawan Chatchawankanphanich, Somsak Kramchote
11:30	Forty years of scab resistance breeding in apple at Agroscope	Simone Buehlmann-Schuetz *, Marius Hodel, Michaela Jung, Giovanni AL Broggini, Andrea Patocchi, Markus Kellerhals
11:45	Phenotyping and genotyping of a lemon segregating population for mining genetic resistance to two-spotted spider mite	Chiara Catalano, Licciardello Giuliana, Sebastiano Seminara, Mario Di Guardo, Giovanna Tropea Garzia, Antonio Biondi, Stefano La Malfa, Alessandra Gentile, Gaetano Distefano *
12:00	Variation of morphological and yield traits in a banana (<i>Musa acuminata</i>) breeding program of triploid populations: lessons for selection procedures and criteria	Lucile Toniutti *, Simon Rio, Frédéric Salmon, Guillaume Martin, Jean-Yves Hoarau
12:15	Identification of transmissible mRNA provides insights into rootstock-induced dwarfing in apple	Zhen-Hai Han *, Wei Li, Hui Li, Hao-Chen Sun, Yu-Qi Li, Shi-Yao Wang, Yi Wang, Xue-Feng Xu

Session 10 - Breeding programs and output

Amphitheatre Jardin - Screen 1

Chairs: Shawn Mehlenbacher, Oregon State University and Ivanka Tringovska, Maritsa Vegetable Crops Research Institute, Bulgaria

15:30	Onion (<i>Allium cepa</i> L.) hybrid breeding in India: Status and prospects	Hira Singh *, Anil Khar
15:45	A public-private consortium approach for sustainable bitter melon breeding and production in Asia	Narinder Dhillon *

16:00	Breeding hazelnuts for resistance to eastern filbert blight	Shawn A. Mehlenbacher *
16:15	INRAE & NOVADI collaboration: evolution of the partnership over 30 years to remain at the forefront of breeding	David Ray *, Clarisse Auvinet, François Lebreton, Christelle Pitiot, Aurélien Petiteau, François Laurens, Bernard Petit
16:30	Two new hybrids strawberry cultivars: breeding strawberry to increase fruits phytochemical contents for health consumption	Peerasak Chaiprasart *, Mongkon Sirijan
16:45	Fruit quality and yield related traits of intraspecific recombinant inbred lines developed for novel fruit color of tomato (<i>Solanum lycopersicum</i> L.)	Ivanka Tringovska *, Stanislava Grozeva, Gancho Pasev, Veneta Stoeva, Daniela Ganeva, Dimitrina Kostova

E-POSTER FLASH PRESENTATIONS

Session P10 - Breeding and variety development
Screen S01.1

Amphitheatre Jardin - Screen 1

Chairs: Edite Kaufmane, Institute of Horticulture, Latvia and Marlene Ayala, Pontificia Universidad Católica de Chile, Chile

14:00	The French INRAE-CEP Innovation scion-pear breeding program: New organization and tools to better meet the next challenges of the European pear industry	Arnaud Guyader *, Philippe Guérif, Christelle Pitiot, François Laurens
14:05	The effects of pollinizers and pollen and pistil quality on fruit set of Japanese quince (<i>Chaenomeles japonica</i>) cultivars and hybrids	Edite Kaufmane *, Silvija Ruisa, Katrina Karklina
14:10	Advances in Tsiperifery's domestication: its propagation and cultivation	Famenoantsa F. Ramahavalisoa *, N. M. Elodie Rafitoharson, Vonjison Rakotoarimanana, Jean Marc Bouvet, Jean Michel Leong Pock Tsy, Jerome Queste, Pascal Danthu
14:15	Pollen germination and behavior of a set of lemon cultivars	Fernando Córdoba López, Monserrat Moreno Verdú, Marta Rabadán Mínguez, Carmen Rodríguez Sánchez, Margarita Pérez-Jiménez, Olaya Pérez-Tornero *
14:20	Preliminary results of self- and cross-incompatibility, and parthenocarpy studies in lemon	Fernando Córdoba López, Monserrat Moreno Verdú, Marta Rabadán Mínguez, Carmen Rodríguez Sánchez, Margarita Pérez-Jiménez, Olaya Pérez-Tornero *
14:25	Molecular techniques to support the granting of Plant Variety Rights in the European Union	Jens Wegner *, Cecile Collonnier, Celine Morineau
14:30	Evaluation of F1 papaya varieties in Thailand and their marketing potential	Jhan Hong Guo *, Wen-Li Lee, Shing-Liang Chen, Kuo-Dong Chiou, Zhi-Zheng Xu, Sutasinee Nontajak
14:35	Breeding for cider apple varieties in France	Marie-Cécile Vergneaud *, Rémi Bauduin, Yann Gilles, Bernard Petit, François Laurens
14:40	Harnessing molecular data to support DUS testing in ornamentals: a case study on <i>Hydrangea</i>	Marc Delêtre, Muriel Thomasset *, Stéphanie Christien, Arnaud Remay
14:45	Performance of selective tropical pumpkin F1 hybrids developed by the World Vegetable Center in observational yield trial in Thailand	Suwannee Laenoi *, Narinder Dhillon
14:50	Recent advances in sweet cherry (<i>Prunus avium</i> L.) breeding in Chile	Marlene Ayala *, Juan Pablo Zoffoli, Marlene Gebauer, Andrés Valenzuela, Katherine Walls
14:55	New cultivars resistant to <i>Verticillium</i> wilt obtained in the olive breeding programs of IFAPA in Córdoba, Spain	Lorenzo Leon *, Raúl de la Rosa
15:00	Assessment of the phenotype and ability to cross of bilberry autotetraploids (<i>Vaccinium myrtillus</i> L.) with highbush blueberry (<i>V. corymbosum</i> L.)	Malgorzata Podwyszynska *, Danuta Wójcik, Monika Marat, Agnieszka Marasek-Cio322akowska, Zbigniew Buler, Mariusz Lewandowski, Przemyslaw Tomczyk, Jacek Filipczak

*Indicates presenting author

FRIDAY 19 AUGUST

S02: INTERNATIONAL SYMPOSIUM ON CONSERVATION AND SUSTAINABLE USE OF HORTICULTURAL GENETIC RESOURCES

ORAL PRESENTATIONS

Session 06 - Novel approaches and technologies applied to the conservation and sustainable use of horticultural diversity

Chair: Jorge Canhoto, University of Coimbra, Portugal

Grand Angle Room A - Screen 1

10:30	Behavior of seed tolerance to desiccation among <i>Citrus</i> species: a crucial step for genetic resources cryopreservation	Francois Luro *, Isabelle Tur, Olivier Pailly
10:45	Uncovering the genetic diversity and population structure of yam (<i>Dioscorea</i> spp.) core collection using DArTseq SNP in IITA genebank	Rajneesh Paliwal *, Michael Abberton, Badara Gueye, Benjamin Faloye
11:00	Screening of soybean genotypes for resistance to <i>Colletotrichum truncatum</i> at seedling stage	Zong-ming Sheu *, Yu-Shin Chiu, Yu-yu Huang, Song-Bin Chang
11:15	Cryopreservation protocol optimization and procedure establishment for long-term storage of cassava and yam international clonal crop collections	Badara Gueye *, Olubimpe Obisean, Busola Bankole, Motunrayo Olagunju, Michael T. Abberton
11:30	MUNQ and PUNQ - A European and international apple and pear germplasm coding system	Charles-Eric Durel *, Caroline Denancé, Hélène Muranty, Marc Lateur, Matt Ordidge
11:45	Construction of a semantic distance for inferring structure of the variability among the 19th century Rosa varieties	Alix Pernet *, Rayan Eid, Claudine Landès, Emmanuel Benoît, Pierre Santagostini, Jordan Marie-Magdelaine, Jérémy Cloutaut, Angelina El Ghaziri, Julie Bourbeillon
12:00	Biotechnology tools for the characterization and preservation of valuable agri-food germplasm: case studies from the CULTIVAR Project in Portugal	Sandra Correia *, Ana Pedrosa, Tércia Lopes, Elsa Baltazar, Alberto Cardoso, Sandra Caeiro, Jorge Canhoto

E-POSTER FLASH PRESENTATIONS

Session P5 - Improved resilience and nutrition through management of horticultural genetic resources, including ethnobotanical approaches

Screen S02.1

Chair: Matthew Ordidge, University of Reading, United Kingdom

Grand Angle Room A - Screen 1

14:00	Evaluation of tomato landraces for yield and fruit-related traits	Daniela Ganeva *, Stanislava Grozeva, Ivanka Tringovska, Veneta Stoeva, Dimitrina Kostova
14:05	An overview of Serbian autochthonous genotypes selection in the <i>Prunus</i> genus	Nebojsa Milosevic *, Ivana Gli263, Sanja Radi269evi263, Sla273ana Mari263, Milena 272or273evi263, Vera Rakonjac, Goran Bara263
14:10	Croatian pomegranate (<i>Punica granatum</i> L.) germplasm	Mira Radunic *, Jaksa Rosin, Maja Jukic Spika
14:15	Natural variation of fruit quality traits within a tomato core-collection	Stanislava Grozeva *, Ivanka Tringovska, Veneta Stoeva, Daniela Ganeva, Amol Nankar, Dimitrina Kostova
14:20	The aromatic volatile pattern of leaves as the index of <i>Citrus depressa</i> and its seasonal variations	Shu-Yen Lin *
14:25	Screening of <i>Vicia faba</i> accessions to abiotic and biotic stresses under field conditions	Elena Barcanu *, Ovidia Agapie, Ion Gherase, Bianca Tanase, Costel Vinatoru

14:30	Conservation of grain legumes genetic diversity for multipurpose uses in the agri-food chain	Creola Brezeanu *, Petre Marian BREZEANU, Silvica Ambarus, Mariana Calara, Andreea Antal Tremurici, Alexandru Bute
14:35	Molecular characterization of Romanian apple cultivars for the identification of scab and powdery mildew resistance genes	Monica Sturzeanu *, Adina Iancu, Madalina Militaru
14:40	New hybrid creations of eggplants achieved at PGRB Buzau, Romania	Costel Vinatoru *, Camelia Bratu, Bianca Musat, Geanina Negosanu, Matilda Popescu, Florin Stanica
14:45	Research on the phenotypic and biochemical expression of Sideritis sc. varieties acclimated and bred at Plant Genetic Resources Bank Buzau, Romania	Geanina Negosanu *, Adrian Asanica, Costel Vinatoru, Bianca Musat, Camelia Bratu, Matilda Popescu
14:50	Fruit quality of old Local bulgarian apple genetic recourses	Marieta Nesheva *, Vanya Akova, Yulian Marinov, Dimitar Vasilev, Svetoslav Malchev
14:55	Wild greens traded in the open markets of Lebanon	Safaa Baydoun *, Safaa Baydoun, Nelly Arnold-Apostolides, Hatem Nasser

Session P6 - Novel approaches and technologies applied to the conservation and sustainable use of horticultural diversity

Screen S02.2

Chair: Badara Gueye, IITA Ibadan, Nigeria

Grand Angle Room A - Screen 2

14:00	Comparative lipid thermal fingerprinting of long-term stored oily Brassicaceae crop wild relative species seeds	Jayanthi Nadarajan *, Sara Mira, Udayangani Liu, Elena González-Benito, Hugh Pritchard
14:05	Comparison of dormancy and early yield of Japanese native taro	Takeshi Morita *, Yasuyuki Kanie, Yoshinori Nakao, Yasumasa Morita
14:10	Characterization and phylogenetic analysis of the ancient Japanese grape variety Juraku	Akihiro Itai *, Takuya Morimoto, Yuto Ohata, Naoko Yoshinaga, Yuta Sasaki
14:15	Evaluation of genotype, environment, and genotype-by-environment interaction for phenolic compounds in tomato landraces	Pilar Hellín, Virginia Hernández, Elena Sánchez, Inmaculada Garrido, Juana Cava, Aurora Pérez, Josefa Gomariz, María Virtudes Molina, Inmaculada Fernández, Elia Molina, Nuria López, José Fenoll, Pilar Flores *
14:20	Biochemical evaluation of some strawberry genotypes for breeding purposes	Monica Sturzeanu *, Mihaela Paraschiv, Claudia Nicola, Petre Duta
14:25	Ovule senescence in the ovary of autochthonous sweet cherry Balkans genotypes as affected by pistilar genotype and temperature	Nebojsa Milosevic *, Sanja Radi269evi263, Melpomena Popovska, Milena 272or273evi263, Radosav Cerovi263, Sla273ana Mari263, Viktor Gjamovski
14:30	<i>Moringa oleifera</i> : a future plant for low-emission agriculture	Adrian Mangar, Svetla Sofkova-Bobcheva *, Craig McGill, Stefan Muetzel, Adrian Molenaar, Axay Bhuker, Virender Singh Mor, Anurag Malik
14:35	Morphological variability of <i>Sorbus domestica</i> L. fruits and seeds in the Mediterranean part of Croatia	Mira Radunic *, Lukrecija Butorac, Jaksa Rosin, Tonka Nincevic Runjic, Marko Runjic, Josip Tadic, Marin Cagalj, Ivan Limic, Zeljan Dulcic, Goran Jelc
14:40	Research regarding phenotypic expressiveness and agronomic value of the Hera tomato variety at Plant Genetic Resources Bank - for Vegetables, Floricultural, Aromatic and Medicinal Plants in Romania	Costel Vinatoru *, Bianca Musat, Camelia Bratu, Geanina Negosanu, Matilda Popescu, Dorel Hoza
14:45	Phenotypic variation assessment in cowpea - <i>Vigna unguiculata</i> (L.) Walp. - Portuguese landraces: exploiting new opportunities for crop improvement	Tércia Lopes *, Ana Pedrosa, Mariana Correia, Cláudia Marinho, Mafalda Resende, Mário Cristóvão, Catarina Martins, Cristophe Espírito Santo, Jorge Canhoto, Sandra Correia
14:50	Alien genomic components and rearrangements: a challenge for genetic resources management	Claudia Wiedow *, Jayanthi Nadarajan
14:55	Figs used as raw material for obtaining alcoholic fermented beverages	Emilia Moisescu *, Arina Antoce

*Indicates presenting author

FRIDAY 19 AUGUST

S05: INTERNATIONAL SYMPOSIUM ON INNOVATIONS IN ORNAMENTALS: FROM BREEDING TO MARKET

ORAL PRESENTATIONS

Session 04 - Breeding of ornamental plants II

Atrium 3 - Screen 1

Chair: Richard Visser, Wageningen University, The Netherlands

10:30	Hardy <i>Geranium</i> breeding	Mehrdad Akbarzadeh *, Katrijn Van Laere, Paul Quataert, Leen Leus, Jan De Riek, Johan Van Huylbroeck, Stefaan Werbrouck, Emmy Dhooghe
10:45	Phenotypic characterization and cytogenetic analysis of interspecific <i>L. longiflorum</i> × <i>L. hansonii</i> hybrids and their mitotic assessment	Ki-Byung Lim *, Md Mazharul Islam
11:00	A view from above: the use of drones and image-based phenotyping in garden rose breeding	Leen Leus *, Irene Borra-Serano, Katrijn Van Laere, Peter Lootens

Session 05 - Genetics of traits of ornamental plants

Atrium 3 - Screen 1

Chair: Ki-Byung Lim, Kyungpook National University, Republic of Korea

11:15	Keynote: Genomics and computer assisted breeding: fact or fiction to arrive at sustainable resilient ornamental crop production	Richard Visser *
11:45	Genetics and genomics of interest ornamental traits in rose	Laurence Hibrand-Saint Oyant, Ning-Ning Zhou, Julien Jeauffre, Annie Chastellier, Tatiana Thouroude, Vanessa Soufflet-Freslon, Thomas Debener, Marcus Linde, Fabrice Foucher *
12:00	Genome wide association study and marker development for adventitious root formation in rose	David Wamhoff *, Thi Hong Nhung Nguyen, Dietmar Schulz, Jasmin Rudeck, Thomas Debener, Traud Winkelmann
12:15	A major locus controls unreduced pollen formation in diploid and triploid <i>Hydrangea macrophylla</i>	Conny Tränkner *

Session 06 - Evolution and plant genetic resources

Atrium 3 - Screen 1

Chair: Fabrice Foucher, INRAE IRHS, France

15:30	Keynote: Towards reclassification of the genus <i>Rosa</i>	Valéry Malecot *, Kevin Debray
16:00	Putting rose microsatellites into orbit: development and assessment of an SSR sequencing method	Clovis Pawula *, Olivier Lepais, Erwan Guichoux, Annie Chastellier, Emilie Chancerel, Benjamin Tyssandier, Valéry Malécot, Agnès Grapin, Jérémy Clotault, Alix Pernet
16:15	Evolution of scent genes in roses	Jean-Claude Caissard *, Corentin Conart, Nathanaelle Saclier, Fabrice Foucher, Clément Goubert, Aurélie Bony, Saretta Paramita, Sandrine Moja, Tatiana Thouroude, Christophe Douady, Pulu Sun, Baptiste Nairaud, Denis Saint-Marcoux, Muriel Bahut, Julien Jeauffre, Laurence Hibrand-Saint Oyant, Robert Schuurink, Jean-Louis Magnard, Benoit Boachon, Natalia Dudareva, Sylvie Baudino
16:30	Orchids of Romania - taxonomy, morphology, pollination strategies, habitats and conservation	Nora Anghelescu *, Hajnalka Kertész, Lori Mihaela Balogh, Nioleta Kigyossy, Mihaela Georgescu, Sorina Petra, Florin Toma
16:45	From phenotype to genotype: <i>Rosa arvensis</i> as a reference genetic model for the description of genetic variations in rose	Pascal Heitzler *

E-POSTER FLASH PRESENTATIONS

Session P2 - Production, response to abiotic and biotic stresses

Atrium 3 - Screen 1

Screen S05.1

Chair: Vanessa Soufflet-Freslon, Institut Agro IRHS, France

14:00	1-MCP and KMnO4 affect the ethylene accumulation but not the respiration rate of stored <i>Chrysanthemum</i> cuttings	Lieven Van de Vondel *, Annelies Christiaens, Peter Ragaert, Frank Devlieghere, Marie-Christine Van Labeke
14:05	Night water cooling temperatures suppress growth, development and nitrate reductase enzyme activity in sacred lotus (<i>Nelumbo nucifera</i> Naertn.)	Panupon Hongpakdee *, Sornnarin Suangto, Ubon Tangkawanit, Chaiartid Inkham, Soraya Ruamrungsri
14:10	Assessment of shade tolerance in Korean endemic <i>Hosta</i> species	Wan Soon Kim *, Min Ji Kim, Haram Yang, Yeong Chan Shin, Hojin Lee, Jeyeon Yeon
14:15	Effect of raising duration and root zone volume on bolting and cut flower quality of <i>Delphinium grandiflorum</i> var. <i>sinensis</i>	Goto Tanjuro *, Yoshikuni Kitamura, Ken-ichiro Yasuba, Yuichi Yoshida, Mika Kawai, Reimi Kai
14:20	Stimulation of adventitious root formation by laser wounding in rose cuttings: a matter of energy and pattern	Raul Javier Morales Orellana *, Thomas Rath, Traud Winkelmann
14:25	The influence of algae based biostimulants on growth and flowering of annuals	Leila Mainla *, Pille Peterson, Mariana Maante-Kuljus, Kadri Karp, Ulvi Moor, Priit Pldma
14:30	Colored shading nets affect growth and ornamental quality of potted roses in a south Mediterranean climate	Youssef Rouphael *, Giancarlo Fascella, Simona Aprile
14:35	Effects of IBA and cold treatments on rooting from hardwood and softwood cuttings in <i>Wisteria</i> species	Sadasue Shunsuke *, Yuki Mizunoe, Yukio Ozaki
14:40	Breeding and micropropagation of <i>Alstroemeria pallida</i> : a source of promissory genetic lines for the development of winter hardy plants	Danilo Aros*, Lissette Carrasco, Abraham Andoñe
14:45	Induced drought and salt stress significantly affect morphological and eco-physiological response of Mediterranean wild roses	Youssef Rouphael *, Giancarlo Fascella, Massimo Mammano

Sessions P3 and P4- Consumer demands, market preference / Breeding of ornamental plants

Atrium 3 - Screen 2

Screen S05.2

Chair: Alicia Rihn, University of Tennessee, United States of America

14:00	Factors influencing the purchase of low-input turfgrasses in the US	Ariana Torres *, Sanchez Philocles
14:05	Effects of negative and neutral pollinator related information on consumer preferences for ornamental plants	Hayk Khachatryan *, Xuan Wei
14:10	Preferences for sustainable urban landscapes: Investigating the interplay between financial incentives and environmentally friendly lawn attributes	Hayk Khachatryan *, Xumin Zhang
14:15	Breeding of new <i>Tulipa</i> cultivar through interspecific hybridization between tulip variety 'Bolroyal Dream' and <i>Tulipa altaica</i>	Guimei Xing, Yanqiu Zhang, Huihua Zhang, Tianyu Wu, Jiaojiao Lu, Lianwei Qu *
14:20	Chromosome number variation in <i>caladium</i> (Araceae)	Zhanao Deng *, Zhe Cao, S. Brooks Parrish
14:25	Introduction of rol genes in roses using the root inducing plasmid of rhizogenic agrobacteria	Siel Desmet, Emmy Dhooghe, Hamid Reza Sabbaghi, Ellen De Keyser, Johan Van Huylbroeck, Leen Leus *
14:30	Induction and retention of mutations in <i>Echeveria</i> 'Peerless' using colchicine	Raisa Aone Cabahug *, Khanh My T. Tran Ha, Ki-Byung Lim, Yoon-Jung Hwang

*Indicates presenting author

SYMPOSIUM 5

14:35	Cytogenetic analysis for ploidy level determination of phalaenopsis cultivars in Korea	Samantha Sevileno *, Hye Ryun An, Ki Byung Lim, Yoon Jung Hwang
14:40	Paving the way for genetic dissection of transformability of roses by <i>Rhizobium rhizogenes</i>	Philipp Rüter *, Thomas Debener, Traud Winkelmann
14:45	Online workshop to empower women farmers during the pandemic	Robin Brumfield *, Madeline Di Nardo, Arend-Jan Both, Joseph Heckman, Amy Rowe, Rick VanVranken
Session P4 - Breeding of ornamental plants Screen S05.3 Chair: Johan Van Huylenbroeck, ILVO, Belgium		Atrium 3 - Screen 3
14:00	Phenotypic and ploidy level Evaluation of <i>Echeveria</i> Viyant species using colchicine	Khanh Ha *, Raisa Aone M. Cabahug, Ki-Byung Lim, Yoon-Jung Hwang
14:05	Cytogenetic investigation of winter hardy <i>Hibiscus</i> species and their interspecific F1 progenies	Ki-Byung Lim *, Deen Mohammad Deepo
14:10	In vitro propagation and molecular cytogenetic assessment of succulent <i>Haworthia</i>	Ki-Byung Lim *, Reshma Yesmin
14:15	The past and future of Hungarian annual and perennial ornamental plant breeding	Szilvia Kisvarga *, Dóra Farkas, András Neményi, Gábor Boronkay, László Orlóci
14:20	Compatibility of interspecific hybridization between tulip cultivars and wild species native to China	Lianwei Qu *, Guimei Xing, Huihua Zhang, Yanqiu Zhang, Jiaojiao Lu, Tianyu Wu
14:25	In search of the signatures of selection during rose breeding of nineteenth century	Jeremy Clotault *, Nadine Le Nénaon, Mathilde Liorzou, Nathalie Jacquier, Marie-Christine Le Paslier, Aurélie Bérard, Aurélie Chauveau, Elodie Marquand, Annie Chastellier, Fabrice Foucher, Gilles Michel, Alix Pernet, Vanessa Soufflet-Freslon, Tatiana Thouroude, Cristiana Oghina-Pavie, Agnès Grapin
14:30	Assessment of genetic distance by use of genotyping-by-sequencing (GBS), genome sizes and chromosome numbers to facilitate breeding of <i>Ilex crenata</i>	Esther Geukens *, Annelies Haegeman, Katrijn Van Laere, Tom Ruttink, Erik Smolders, Leen Leus
14:35	Taxonomic Identity of Korean Endemic Plant <i>Syringa fauriei</i> H.Lév	Da Yeon Kim *, Wan Soon Kim, Jeong Ill Jeon, Jae Sun Yi, Hee Sun Shin
14:40	Rescue, micropropagation and morphological characterization of a wild population of chocolate cosmos (<i>Cosmos atrosanguineus</i>)	Bulmaro Morales Vázquez *, María Teresa Colinas León, José Merced Mejía Muñoz, María Teresa Martínez Damián, Diana Erika Gómez Pedraza, Juan Martínez Solís, María de Jesús Juárez Hernández
14:45	In vitro propagation of the endangered <i>Hibiscus palustris</i> L	Mariana Neves *, Jéssica Batista, Tércia Lopes, Ana Pedrosa, Daniela Cordeiro, Sandra Correia, Jorge Canhoto
14:50	Germination characteristics and cryopreservation of <i>Paeonia emodi</i> Wall. ex Royle seed	Wan Yingling *, Min Zhang, Hao Zhou, Yan Liu
14:55	New classification system for flower shapes of rose cultivars appropriate for field-work	Gábor Boronkay *, Dóra Farkas, Szilvia Kisvarga, András Neményi, László Orlóci
Session P5 - Genetics of traits of ornamental plants Screen S05.1 Chair: Leen Leus, ILVO, Belgium		Atrium 3 - Screen 1
17:10	Heredity of rose fragrance	Saretta Nindya Paramita *, Guillaume Beaugey, Juliette Einhorn, Aurélie Rius BONY, Denis Saint-Marcoux, Sonja Meilland, Sylvie Baudino, Jean-Claude Caissard
17:15	Elucidation of functional genes controlling auxin action in petunia cuttings: temporal and spatial analysis of gene expression via a phytohormone-targeted microarray	Ivona Jurenic *, Sindy Chamas, Nicole Nagler, Uwe Druege

17:20	Identification and QTL analysis of flavonoids and carotenoids in tetraploid roses based on an ultra-high-density genetic map	Bixuan Cheng *, Qixiang Zhang, Chao Yu
17:25	Cross compatibility and trait heredity of reblooming daylily	Yuxuan Cui *, Yike Gao, Lin Yuan, Chunjing Guan, Ying Wang, Yi Lv
Session P6 - Evolution and plant genetic resources Screen S05.2 Chair: Jean-Claude Caissard, Univ Jean Monnet, France		Atrium 3 - Screen 2
17:10	TEPIK - Test of Plant Identification and Knowledge; a digital innovative tool to learn and evaluate plant identification and knowledge	Valéry Malecot *, Sandrine Huet, Lucie Benoit
17:15	Tarenaya Cultivars: Genome Size and Genetic Diversity	Sylvia Plaschil *, Simone Abel, Beate Kollatz, Holger Budahn
17:20	Exploring the <i>Rosa</i> genetic diversity through the 20th century with an interdisciplinary approach	Agnes Grapin *, Jeremy Clotault, Jordan Marie-Magdelaine, Annie Chastellier, Fabrice Foucher, Tatiana Thouroude, Cristiana Pavie, Blandine Veith, Alix Pernet
17:25	<i>Pseudorchis albida</i> (L.) Á.Löve & D.Löve - A new orchid species to Romanian flora	Nora Anghelescu *, Hajnalka Kertész, Mihaela Georgescu, Sorina Petra, Florin Toma

S06: INTERNATIONAL SYMPOSIUM ON INNOVATIVE TECHNOLOGIES AND PRODUCTION STRATEGIES FOR SUSTAINABLE CONTROLLED ENVIRONMENT HORTICULTURE

Symposium supported by :



ORAL PRESENTATIONS

Session O8 - Soilless cultivation: microbiome & fertilization Chair: Beatrix Alsanus, Swedish University of Agricultural Sciences, Sweden		Auditorium - Screen 1
10:30	Keynote: Innovations and insights into fertigation management for a protected cultivation in transition	Daniele Massa *, Luca Incrocci, Rodney Thompson
11:00	In situ microbial community analysis in container soilless substrates.	Silvia Valles *, James Altland, Frederick Michel
11:15	Prediction of organic nitrogen mineralization from fertilizers in soilless production.	Patrice Cannavo *, Sylvie Recous, Matthieu Valé, Sophie Bresch, Mohammed Benbrahim, René Guénon
11:30	Comparison of organic, conventional and compost fertility source effects on media microbiome and plant health.	Melodie Floom *, James Altland, Frederick Michel Jr.
11:45	Silicon accumulation by sunflowers impacted at low substrate pH.	Jennifer Boldt *, Mona-Lisa Banks, James Altland
12:00	Comparison of growth, phytochemical content, nutrient uptake, and water consumption of lettuce under two hydroponic system designs: nutrient film technique and deep water culture.	Teng Yang, Uttara Samarakoon *, James Altland
12:15	Disease suppression in the circular economy using spent mushroom compost.	Sammar Khalil *, Ramesh Vetukuri, Madeleine Ugglá, Giovana Prado, Julia Forsbacka

*Indicates presenting author

FRIDAY 19 AUGUST

SYMPOSIUM 6

Session 09 - Soilless cultivation: fertilization & biostimulants

Auditorium - Screen 1

Chair: *Beatrix Alsanus, Swedish University of Agricultural Sciences, Sweden*

15:30	Potentialities of a biogenerator applied to nutrient solutions in a soilless tomato crop	<i>Landry Rossdeutsch *, Serge Le-Quilicq, Irène Gerondeau, Denis Loda</i>
15:45	Transplanting bacterial community inocula on hydroponic lettuce.	<i>Danny Geelen, Thijs Van Gerrewey, Nico Boon, Brechtje de Haas *</i>
16:00	Assessment of four biocontrol agents for their suppression of <i>Fusarium proliferatum</i> on <i>Cannabis sativa</i> plants in a soilless cultivation system.	<i>James Nesbitt *, Marc Habash, Sarah Kingsley, Finlay Small, Youbin Zheng</i>
16:15	Unravelling the effect of vegetal-biostimulants new generation in boosting plant resilience, phytochemical profile and coping with nitrogen scarcity.	<i>Christophe El Nakhel *, Francesco Cristofano, Giuseppe Colla, Luigi Lucini, Youry Pii, Youssef Rouphael</i>
16:30	Impact of plant-based protein hydrolysate and different iodine doses on celery plant production and quality.	<i>Leo Sabatino *, Georgia Ntatsi, Salvatore La Bella, Youssef Rouphael, Claudio De Pasquale, Beppe Benedetto Consentino</i>
16:45	Pre-harvest factors such as biostimulant application and plant density modulate basil aroma and bioactive compounds in controlled environment.	<i>Michele Ciriello *, Luigi Formisano, Christophe El-Nakhel, Stefania De Pascale, Youssef Rouphael</i>

E-POSTER FLASH PRESENTATIONS

Auditorium - Screen 1

Session P15 - Innovations in supplementary light in horticulture

Screen S06.1

Chair: *Marc Van Iersel, University of Georgia, USA*

14:00	Effects of short-term day or night supplemental LED lighting on mineral elements in lettuce	<i>Kristina Lauzike, Ruta Sutuliene, Neringa Rasiukeviciute, Giedre Samuoliene, Alma Valiuskaite, Viktorija Vastakaite-Kairiene, Akvile Virsile, Jurga Miliauskiene, Lina Dene, Simona Chrapaciene, Ausra Brazaityte *</i>
14:05	Chlorogenic acid changes in lettuces under short-term day or night supplemental LED lighting	<i>Giedre Samuoliene, Viktorija Vastakaite-Kairiene, Ruta Sutuliene, Kristina Lauzike, Neringa Rasiukeviciute, Alma Valiuskaite, Akvile Virsile, Jurga Miliauskiene, Lina Dene, Simona Chrapaciene, Ausra Brazaityte *</i>
14:10	Supplemental photoperiod and CO2 concentration to enhance nursery citrus tree growth	<i>Gurreet Brar *, Gabrielle Celaya-Finke, John Bushoven, Sharon Benes, Masood Khezri</i>
14:20	The Effect of LED Supplementary Light Intensity on Photosynthetic Rate and Yield in out-of-season glasshouse production of Junebearer Strawberry	<i>Keiri Winnie Swann *, Paul Hadley, Carrie Twitchen, Mark Else</i>
14:25	Improvement of canopy photosynthesis and water use efficiency of hydroponics sweet peppers by supplemental inter-lighting	<i>Dongpil Kim *, Sungmin Kwon, Inha Hwang, Jung Eek Son</i>
14:30	Biomass and antioxidant activity of Lavinia lettuce plants are altered by supplementation of different light spectra	<i>Cristian Hernández *, Herman Silva, Vicente Martínez, Víctor Hugo Escalona</i>
14:35	The physiological response of lettuce to <i>Botrytis cinerea</i> under different lighting conditions	<i>Viktorija Vastakaite-Kairiene *, Ausra Brazaityte, Neringa Rasiukeviciute, Alma Valiuskaite, Akvile Virsile, Jurga Miliauskiene, Kristina Lauzike, Lina Dene, Simona Chrapaciene, Ruta Sutuliene, Giedre Samuoliene</i>
14:40	Effects of far-red light irradiation and its timing on the flowering in <i>Phalaenopsis amabilis</i>	<i>Yogendra Magar Gharti, Arisa Noguchi, Sumihisa Furufuji, Wakanori Amaki *</i>
14:45	Examine the impact of UV light on poinsettia architecture and quality	<i>Most Tahera Naznin *, AnaLu MacVean</i>

14:50	Effect of altitudinal locations on growth and flowering of ornamental <i>Curcuma</i>	<i>Kanokwan Panjama, Soraya Ruamrungsri, Chaiartid Inkham *</i>
Session P16 - Advances in growing media Screen S06.2 Chairs: <i>Jean-Charles Michel, L'Institut Agro, France & Jim Owen, USDA-ARS, USA</i>		Auditorium - Screen 2
14:00	Evaluation of organic substrates and irrigation rate for tomato production in the Dutch bucket hydroponic system	<i>James Altland *, Teng Yang, Uttara Samarakoon</i>
14:05	The retention time of saturation affects EC measurement using saturated media extract method	<i>Jaebeom Lee *, Seong Kwang An, Jongyun Kim</i>
14:10	Regolith simulant and green compost as substrates for plant cultivation in Mars space colonies	<i>Stefania De Pascale *, Greta Liuzzi, Roberta Paradiso, Antonio Caporale, Paola Adamo</i>
14:15	Characterization of biochar produced from pruning residues of different species for use in vegetable and flower production	<i>Andrea Copetta *, Ornella Arimondo, Ferruccio Pittaluga, Carlo Mascarello, Paolo Mussano, Barbara Ruffoni</i>
14:20	Direct and indirect disease suppression using low concentrations of biochar in strawberry cultivation	<i>Lisa Joos, Marijke Jozefczak, Wendy Van Hemelrijck, Amine Lataf, Dries Vandamme, Kristof Maenhout, Caroline De Tender, Ann Cuypers, Bart Vandecasteele *, Jane Debode</i>
14:25	Don't waste your waste: how waste of microgreens cultivations becomes a resource for coconut coir-based biochar, possibly increasing substrate and product quality along the way	<i>Kris Kunnen *, Dries Vandamme, Bart Vandecasteele, Ann Cuypers</i>
14:30	New approaches to assess stability of wood fibre	<i>Dieter Lohr *, Elena Beuth, Maximilian Schreiner, Elke Meinken</i>
14:35	Impact of wood addition to sphagnum peat on substrate water capture through surface and subsurface irrigation	<i>Brian Schulker *, Brian Jackson</i>
14:40	Root growth and evolution of substrates physical properties according to irrigation strategies	<i>Jean-Charles Michel *</i>
14:45	Growing media in France: past, present and future.	<i>Laurent Largent *, Jean-Charles Michel</i>
14:50	Substrate stratification can improve resource efficiency in container crop production	<i>Jeb Fields *</i>
Session P17 - New trends in controlled environment agriculture Screen S06.1 Chair: <i>Marc Van Iersel, University of Georgia, USA</i>		Auditorium - Screen 1
17:10	A survey of water use of commercial propagators in controlled environments	<i>James Faust *, Allison Justice, Jeremy Crook</i>
17:15	Description and comparison of 4 pilots Rooftop Greenhouses conceived and build under the European Interreg GROOF project	<i>Nicolas Ancion, Pierre Raulier, Nathalie Crutzen, Haissam Jijakli, Maeva Sabre, Guillaume Morel Chevillet, Karsten Wilhem, Roxane Huart *</i>
17:20	Controlled environment agriculture in UAE: current state and future trends	<i>Hicham Fatnassi *, Rashyd Zaaboul, Ali Albattay, Francisco Domingo Molina Aiz, Diego Luis Valera</i>
Session P18 - Innovations in water and fertilization management Screen S06.2 Chairs: <i>Jean-Charles Michel, L'Institut Agro, France & Jim Owen, USDA-ARS, USA</i>		Auditorium - Screen 2
17:10	Analysis of uniformity in substrate moisture levels among the replicates within the same irrigation treatment via soil moisture sensor-based automated drip irrigation system	<i>Sooeon Lee *, Seong Kwang An, Jongyun Kim</i>

*Indicates presenting author

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SYMPOSIUM 6

17:15	Proper irrigation threshold level for growing sweet basil via subirrigation systems	Jongkyun Kim *, Seong Kwang An, Jongyun Kim
17:20	Real-time, on-farm soil monitoring methods for in-season management of fertigation in vegetable crop protected cultivation systems	Andrew Blunk *, Francesco Di Gioia
17:25	Assessing the reliability of portable ion-selective electrodes proposed for the on-farm management of nutrient solutions and fertigation of horticultural crops	Gabriela Silva-Pumarada, Andy Blunk, Francesco Di Gioia *

S07: II INTERNATIONAL SYMPOSIUM ON GREENER CITIES: IMPROVING ECOSYSTEM SERVICES IN A CLIMATE-CHANGING WORLD (GREENCITIES2022)

ORAL PRESENTATIONS

Session 05 - Horticultural therapy (Common to S7 and S9) Chair: Candice Schoemaeker, Kansas State University, USA

Panoramic Room

10:30	Horticultural therapy in Ireland: a roadmap to professionalisation	Natalie Batsch *
10:45	Horticultural medicine toward integrated medicine beyond horticultural therapy or therapeutic horticulture	Sayaka Mita *, Takahiro Hayashi
11:00	Horticultural therapy and recovery from attentional fatigue: review and research agenda	William Sullivan *, Shih-Han Hung, Chun-Yen Chang
11:15	UF/IFAS Extension St. Johns County, Florida, Community garden supports healthy living	Terra Freeman *
11:30	PDCA cycle treatment as a dynamic framework in horticultural therapy	Takahiro Hayashi *, Sayaka Mita
11:45	Importance of affordances built into gardening tasks to trigger client positive behavior	Sayaka Mita *, Takahiro Hayashi

Session 06 - Landscape and health (Common to S7 and S9) Chair: Chun-Yen Chang, National Taiwan University, Chinese Taipei

Panoramic Room

15:30	Potential human well-being benefits from ecological infrastructure: a case study from Chiang Mai, Thailand	Pongsakorn Suppakittpaisarn *, Ekachai Yaipimol, Chulalux Wanitchayapaisit, Vipavee Surinseng, Nadchawan Charoenlerthanakit, Thitima Vaiseesaeng
15:45	The way awareness of food security with social justice motivate horticultural activities: a case study in the suburbs of Osaka, Japan	Hiroyuki Tsunashima *
16:00	Using therapeutical landscape database to assist landscape design in hospital and long-term care	Chun-Yen Chang *, Shih-Han Hung, Hsing-Fen Tang
16:15	The role of academic green space in students' mental health	YuChen Yeh *, Chun-Yen Chang
16:30	Experience of nature while walking in an urban park: joint approaches in psychology and landscape science	Pauline Laille *, Bastien Vajou, Nathan Béziau, Alice Meyer-Grandbastien, Dr. Benoît Fromage, Gilles Galopin
16:45	How are they related? A study on perceived biophilic design and environmental Qi in therapeutic landscape and human health	Shih-Han Hung *, Chun-Yen Chang

E-POSTER FLASH PRESENTATIONS

Session P2 - Food Systems in European cities: experiences from the H2020 FOODE project and Session P4 - Challenges and innovations in sustainable production at level of farming techniques and production systems Screen S09.1

Chair: Kevin Morel, INRAE, France

Panoramic Room

14:00	Application of LCA methodology to a Recirculating Aquaponics System (RAS) prototype	Chiara Cirillo *, Lucia Vanacore, Giuseppe Carlo Modarelli, Antonio Luca Langellotti, Paolo Masi, Youssef Rouphael, Stefania De Pascale
14:05	Beyond sustainable food production: the potential of vertical farming in education and awareness-raising, the case of AlmaVFarm	Laura Carotti *, Elisa Frasnetti, Alessandro Pistillo, Giuseppina Pennisi, Francesco Orsini, Giorgio Gianquinto
14:10	Connecting farming systems: circular economy strategies within and between livestock and agricultural systems	Xavier Gabarrell Durany, Sara Molins-Cabaní *, Martí Rufi-Salís, Laura Talens, Pol Llonch
14:15	Exploring the adaptative capacities of entrepreneurial urban farmers: Case study of the impacts of Covid-19 pandemic and lockdown on French urban production	Véronique Saint-Ges *, Caroline Petit
14:20	Indicators and metrics to measure social impacts in city-region-food-systems (CRFS)	Kathrin Specht *, Runrid Fox-Kämper, Giuseppe Calore, Mara Petruzzelli, Francesca Monticone, Laura Carotti, Pietro Tonini
14:25	Policies for growing innovative City Region Food Systems. Results of an analysis in six European countries	Runrid Fox-Kämper *, Kathrin Specht, Anna Wissmann, Adam Curtis, Laura Martinez
14:30	Supplemental LED light to reduce structural shadings in a rooftop-integrated greenhouse where tomatoes are grown	Elisa Appolloni*, Giuseppina Pennisi, Andrea Crepaldi, Gaia Stringari, Francesco Orsini, Xavier Gabarrell, Giorgio Gianquinto
14:35	Agrotopia, a living lab for high tech urban horticulture within Europe	Ine Pertry *
14:40	Design of a "hot-spot" for beneficial insects in urban context	Giovanni Bazzocchi *, Andrea D'Aprile, Francesco Orsini
14:45	Development and study of Agrivoltaics adapted to urban and peri-urban food production systems	Roxane Huart *, Pierre Raulier, Haissam Jijakli
14:50	Development of a low-tech bioponic method using mineralised chicken and goat droppings to produce lettuces	Iris Szekely *, Pierre Raulier, Haissam Jijakli
14:55	Effect of rooting media and IBA treatment on rooting response of South African Dune spinach (<i>Tetragonia decumbens</i>): An underutilized edible halophyte	Avela Sogoni *, Muhali Olaide Jimoh, Learnmore Kambizi, Charles Petrus Laubscher

Session P5 - Horticultural therapy and Session 6 - Landscape and Health (Common to S7 and S9) Screen S09.2

Chair: Candice Schoemaeker, Kansas State University, USA

Panoramic Room

14:00	Purpose and function of food production in therapy programs in the United States	Rebecca Haller *
14:05	A study on the impact of herbs on emotion and brain responses	Yu Wen Wang *, Chun-Yen Chang
14:10	Exploring the correlation between landscape preference and scene using neural networks model	Yu Hsin Tung *, Li-Chih Ho, Chien-Chung Chen, Chun-Yen Chang
14:15	The sequence of scenes and the psychological responses	Ang Yeh *, Chun-Yen Chang

*Indicates presenting author

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SYMPOSIUM 7

14:20	Effect of participation in leisure horticultural activities on the loneliness of older adults: a correlational case study on Taichung ren'ai senior citizens' home in Taiwan	Chia-Yun Liu *
<p><i>Session P4 -Challenges and innovations in sustainable production at level of farming techniques</i> Screen S09.2 Chair: Chun-Yen Chang, National Taiwan University, Chinese Taipei</p> <p style="text-align: right;">Panoramic Room</p>		
14:30	Uptake of lead by lettuce from moderately contaminated urban allotment garden soil: effect of self-produced composts	Laure Vidal-beaudet *, Alice Kohli, Liliane Jean-Soro, René Guéron
14:35	Will lettuces and tomatoes thrive in peri-urban wheat fields? Strategies, factors and implications of horticultural diversification for large-scale field crop farmers in the Parisian area	Kevin Morel *, Hector Mussillon
14:40	Effect of vermicompost from cow manure on tomato yield	Issa Alé Ndiaye *, Mamadou DIATTE, Babacar LABOU, Etienne TENDENG, Serigne Sylla, Amadou Balde, Omar Seydi, Pape Diop, Serigne Omar Sene, Karamoko DIARRA
14:45	Effects of agro waste substrates on growth and yield performance of mushrooms (<i>Pleurotus ostreatus</i> (jacq.) p. kumm for livelihood in Benue state, Nigeria	Ngozi Ifeoma Odiaka *, Bayo David
<p><i>Session P3 - Impacts and assesment of urban horticulture on sustainability of food systems and Session P4 -Challenges and innovations in sustainable production at level of farming techniques and production systems</i> Screen S09.1 Chair: Charles Laubscher, Cape Peninsula University of Technology, South Africa</p> <p style="text-align: right;">Panoramic Room</p>		
17:10	Smart aquaponics (SMARTAP - project): small/ medium farm economic improvement model, environmental sustainability, monitoring and simplified management of big data	Carlo Nicoletto *, Johnny Moretto, Paolo Sambo
17:15	Sustainable urban agriculture in the post-industrial midwest	Frederick Michel *, Kip Curtis, Glennon Sweeney, Mary Rodriguez, Ajay Shah, Esha Shrestha
17:20	Effects of greenhouse covering films on yields of lettuces and herbs grown in organic pipe hydroponics in sub-tropical climate zone	Ting-I Lee *, Yi-Hsuan Hsieh
17:25	Particles and microbes on urban grown plant	Beatrix Waechter Alsanius *, Most Tahera Naznin, Emina Mulaosmanovic
<p><i>Session P4 -Challenges and innovations in sustainable production at level of farming techniques</i> Screen S09.2 Chair: Runrid Fox Kämper, ILS, Germany</p> <p style="text-align: right;">Panoramic Room</p>		
17:10	Horticultural orchard in soilless protected agriculture, an alternative for family farming	Eugenio Cedillo Portugal *, Leova Pamela Martínez Hernández
17:15	Present conditions and challenges on the fertilizer application by vegetable production farmers in Ouagadougou, the capital of Burkina Faso	Masakazu Yamada *, Salomé Ouedraogo Toukounnogo
17:25	Urban Agriculture Demonstrator - Chambre Régionale d'Agriculture Pays de la Loire	Laura Perez *

S08: INTERNATIONAL SYMPOSIUM ON ADVANCES IN VERTICAL FARMING

ORAL PRESENTATIONS

<i>Session 03 -Nutrients, secondary metabolites, quality & photosynthesis</i>		Cointreau Room - Screen 1
Chair: Eri Hayashi, Japan Plant Factory Association, Japan		
10:30	Keynote: Technological overview of tip-burn management in vertical farming conditions	Chieri Kubota *, Gio Papio, John Ertle
11:00	The role of Manganese in light stress induced tipburn of lettuce	Sissel Torre *, Gifty Kodua, YeonKyeong Lee
11:15	Real time monitoring of nitrate, ammonium and potassium in closed-loop hydroponics: Customized calibration and compensation strategies of ion-specific electrodes	Oyvind M. Jakobsen *, Mona Schiefloe, Ann-Iren Kittang Jost
11:30	Lighting for high value pharmaceutical and nutraceutical crops in vertical farms	Akville Virsile *, Giedre Samuoliene, Viktorija Vastakaite-Kairiene, Ausra Brazaityte, Jurga Miliauskiene, Kristina Lauzike, Ruta Sutuliene
11:45	Growing biofortified microgreens in indoor farm and in greenhouse: a comparison	Roberta Bulgari *, Hossein Sheikhi, Andrea Ertani, Silvana Nicola
12:00	In vivo monitoring of indoor grown lettuce light stress response and its dynamics over time	Laura Cammarisano *, Jan Graefe, Oliver Körner
12:15	Photosynthetic characteristics of grafted cucumber seedlings following healing and acclimatization under different light spectra and intensities	Farzaneh Bekhradi *, Mohamad Mohammadian, Sasan Aliniaiefard, Mahmoud Lotfi
<i>Session 04 - Evaluation of sustainability, economics & yield</i>		Cointreau Room - Screen 1
Chair: Murat Kacira, University of Arizona, USA		
15:30	Keynote: Where to go for sustainable and feasible vertical farming? A journey through resource use, environmental performances and viability indicators	Francesco Orsini *
16:00	Light use efficiency of lettuce grown in vertical farm, greenhouse, and open field	Wenqing Jin *, David Formiga, Ep Heuvelink, Leo F. M. Marcelis
16:15	Pathways to Net-Zero farming: A carbon footprint comparison of vertical vs. traditional agriculture	Francis Baumont de Oliveira, Sam Bannon, Luke Evans, Paul Myers, Laurence Anderson, Iain Young, Jens Thomas *
16:30	Prospecting the implications of urban symbiosis for more circular urban-vertical farming systems	Michael Martin *
16:45	Potential of tomato commercial production in plant factories with artificial lighting in different countries	Yunfei Zhuang *, Wenshuo Xu, Xiaowei Ren, Masao Kikuchi, Michiko Takagaki, Na Lu
E-POSTER FLASH PRESENTATIONS		
<i>Session P4 - Secondary metabolites</i>		Cointreau Room - Screen 1
Screen S08.1 Chair: Eiji Goto, Chiba University, Japan		
14:00	Watercress (<i>Nasturtium officinale</i> r. br.) growth and glucosinolate contents increase by optimizing the ratio of red and blue LED and preharvest UV-B irradiation	Gwonjeong Bok *, Jaeyun Choi, Jongseok Park
14:05	How indoor farms can advance the production of high value bioactive substances	Alice Petrini *, Roberta Bulgari, Andrea Ertani, Silvana Nicola

*Indicates presenting author

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SYMPOSIUM 8

14:10	Efficient Production of soybean isoflavones using a hydroponic system in a plant factory	Hansol Sim *, Ki-Ho Son, Kye Man Cho, Thi Kim Loan Nguyen
14:15	Effects of light intensity and far-red light on antioxidant activity and secondary metabolite in <i>Centella asiatica</i>	Jae woo Song *, Yu Kyeong Shin, Shiva Ram Bhandari, Jun Gu Lee
14:20	Phytochemical quality of Brassicaceae microgreens grown on different organic substrates: a deep dive into the metabolome	Jens H. Knauth, Sebastian T. Soukup, Christoph H. Weinert, Patrick Pressler, Björn Egert, Sabine E. Kulling, Diana Bunzel *
14:25	Nutritional value of Asian herbaceous plants under different light conditions suitable for indoor cultivation	Michael Böhme *, Kerstin Paschko, Nikolina Grabovac
14:30	The effect to anthocyanin contents and its related gene expression of red leaf lettuce by irradiating blue light under vertical farm condition	Konosuke Kijima *, Kazuma Sakai, Yuji Yamada, Takashi Ikeda
14:35	Impacts of Environmental parameters on microgreen yield, nutrient content, and secondary metabolite production with a focus on light quantity and quality for Brassicaceae: a review	Reed Cowden *, Bhim Ghaley
14:40	Estimation of optimal ultraviolet a intensity and wavelength for production of the pharmaceutical drug components, vinblastine, contained in <i>Catharanthus roseus</i> (L.) G. Don	Tatsuki Hanyu *, Keiko Ohashi-Kaneko
14:45	Effect of light condition on the growth and lutein and beta-carotene contents in spinach using plant factory with artificial lighting	Tomo Matsui *, Chihiro Watari, Taihei Oshima, Hiroyuki Watanabe
14:50	Growth and accumulation of secondary metabolites in basil as affected by light spectrum and applied nutrient amount in nutrient solution	Xiaowei Ren, Na Lu *, Wenshuo Xu, Yunfei Zhuang, Michiko Takagaki
<p>Session P5 - Light Cabernet Room Screen S08.2 Chair: Sissel Torre, NMBU, Norway</p>		
14:00	Effects of light quality environments on nutrient absorption in leafy vegetables	Kazuki Serizawa *, Keiko Ohashi-Kaneko
14:05	Supplemental far-red radiation influences lettuce growth and quality parameters	Ellen Van de Velde *, Marie-Christine Van Labeke, Kathy Steppe
14:10	Supplemental far-red light with RGB light can enhance the growth and water use efficiency of sweet basil	Ji Up Park *, Seong Kwang An, Jongyun Kim
14:15	Quantitative analysis of growth, morphology, and photosynthetic activity of kale according to far-red fraction	Jun Hyeun Kang *, Hyo In Yoon, Jaewoo Kim, Jung Eek Son
14:20	Optimizing red, green and blue LEDs ratio of butterhead lettuce at seedling stage through mixture design based on growth parameters and its verification	EunJeong Lim *, Myung-Min Oh
14:25	Influence of different light spectrum on growth and quality of <i>Rosmarinus officinalis</i> varieties in a deep water vertical indoor farming system	Ivonne Jüttner *, Julian Hecht, Alexander Kunze, Sabine Wittmann, Heike Mempel
14:30	Determination of optimal light spectrum for lettuce production in vertical farms using mixture design	Jang Se-hun *, Oh Myung-Min

14:35	Spectral effects of sole-source lighting on plant growth, flowering, and fruit development of indoor strawberries	Yujin Park *, Tristan Lewis, Lin Li
14:40	Optimizing light use efficiency and productivity of indoor leafy greens by using different lighting strategies	Laurent Boucher, Thi Thuy An Nguyen, Frédéric Jobin-Lawler, Annie Brégard, Steeve Pepin, Martine Dorais *
14:45	Pulsed Light - Optimal ratio between yield and energy reduction	Sabine Wittmann *, Ivonne Jüttner, Heike Mempel
14:50	Finetuning red and blue LED light for improved resource use efficiency in aeroponically grown kale (<i>Brassica oleracea</i> L.) in a vertical farm	Ilaria Zauli *, Alessandro Pistillo, Laura Carotti, Giuseppina Pennisi, Giorgio Gianquinto, Francesco Orsini
<p>Session P6 - Evaluation of sustainability, economics & yield Cointreau Room - Screen 1 Screen S08.1 Chair: Ep Heuvelink, Wageningen University, The Netherlands</p>		
17:10	Innovations in high tech horticulture as a driver of food system transition	Annie Drottberger *, Sara Spendrup, Karl-Johan Bergstrand, Fredrik Fernqvist, Marie-Claude Dubois, Lena Ekelund Axelson
17:15	Methods and insights for assessing the environmental sustainability of vertical farming	Michael Martin *
17:20	Plant Factories energy optimization strategies: a case study in the Mediterranean climate	Giacomo Scarascia-Mugnozza *, Luigia Mandriota, Ileana Blanco
<p>Session P7 - Plant Monitoring Cabernet Room Screen S08.2 Chair: Ki-Ho Son, Gyeongsang National University, Republic of Korea</p>		
17:10	Prediction of <i>Catharanthus roseus</i> stress by hyperspectral reflectance and photosynthesis under di- and polychromatic light spectra with extended UV-A	Marisa Sofia Coelho Lourenco *, Cátia Rodrigues de Almeida, Ana Claudia Teodoro, Susana M. P. Carvalho
17:15	An alternative method for growth analysis of lettuce grown in a plant factory with artificial lighting using projected canopy area and fresh mass	Masatake Eguchi *, Ayumi Enjoji, Junichi Yamaguchi, Yasunaga Iwasaki, Yoshiaki Kitaya
17:20	Evaluation of reflectance changes on indoor grown lettuce under nitrogen stress and different leds treatments	Matteo Landolfo *, Vito Cerasola, Ilaria Zauli, Giuseppina Pennisi, Giorgio Gianquinto, Francesco Orsini
<p>Session P8 - Shoot and root environment Cointreau Room - Screen 1 Screen S08.3 Chair: Heike Mempel, HSWT, Germany</p>		
17:10	Suitability of diverse sub-optimal levels of dissolved oxygen for the cultivation of <i>Pelargonium tomentosum</i> Jacq. in deep water culture hydroponics	Muhali Jimoh *, Joshua Butcher, Johannes Coetzee, Charles Petrus Laubscher
17:15	Quantifying the effects of plant growth-promoting microorganisms and organic fertilizers on growth of indoor vegetable transplants	Nicklass McClintic *, Zhihao Chen, Yujin Park
17:20	Increasing day and night temperature and carbon dioxide concentration influence growth and development of red and green lettuce (<i>Lactuca sativa</i>)	Devin Brewer *, Sean Tarr, Roberto Lopez
17:25	Effects of air temperature and light environment on rooting of nasturtium (<i>Tropaeolum majus</i> L.) cuttings	Wenshuo Xu, Na Lu *, Xiaowei Ren, Yunfei Zhuang, Michiko Takagaki

*Indicates presenting author

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S09: INTERNATIONAL SYMPOSIUM ON URBAN HORTICULTURE FOR SUSTAINABLE FOOD SECURITY (URBANFOOD2022)

ORAL PRESENTATIONS

Session 05 - Horticultural therapy (Common to S7 and S9) Chair: Candice Schoemaeker, Kansas State University, USA

Panoramic Room - Screen 1

10:30	Horticultural therapy in Ireland: a roadmap to professionalisation	Natalie Batsch *
10:45	Horticultural medicine toward integrated medicine beyond horticultural therapy or therapeutic horticulture	Sayaka Mita *, Takahiro Hayashi
11:00	Horticultural therapy and recovery from attentional fatigue: review and research agenda	William Sullivan *, Shih-Han Hung, Chun-Yen Chang
11:15	UF/IFAS Extension St. Johns County, Florida, Community garden supports healthy living	Terra Freeman *
11:30	PDCA cycle treatment as a dynamic framework in horticultural therapy	Takahiro Hayashi *, Sayaka Mita
11:45	Importance of affordances built into gardening tasks to trigger client positive behavior	Sayaka Mita *, Takahiro Hayashi

Session 06 - Landscape and health (Common to S7 and S9) Chair: Chun-Yen Chang, National Taiwan University, Chinese Taipei

Panoramic Room - Screen 1

15:30	Potential human well-being benefits from ecological infrastructure: a case study from Chiang Mai, Thailand	Pongsakorn Suppakittpaisarn *, Ekachai Yaipimol, Chulalux Wanitchayapaisit, Vipavee Surinseng, Nadchawan Charoenlertthanakit, Thitima Vaiseesaeng
15:45	The way awareness of food security with social justice motivate horticultural activities: a case study in the suburbs of Osaka, Japan	Hiroyuki Tsunashima *
16:00	Using therapeutical landscape database to assist landscape design in hospital and long-term care	Chun-Yen Chang *, Shih-Han Hung, Hsing-Fen Tang
16:15	The role of academic green space in students' mental health	YuChen Yeh *, Chun-Yen Chang
16:30	Experience of nature while walking in an urban park: joint approaches in psychology and landscape science	Pauline Laille *, Bastien Vajou, Nathan Béziau, Alice Meyer-Grandbastien, Dr. Benoît Fromage, Gilles Galopin
16:45	How are they related? A study on perceived biophilic design and environmental Qi in therapeutic landscape and human health	Shih-Han Hung *, Chun-Yen Chang

E-POSTER FLASH PRESENTATIONS

Session P2 - Food Systems in European cities: experiences from the H2020 FOODE project and Session P4 - Challenges and innovations in sustainable production at level of farming techniques and production systems Screen S09.1 Chair: Kevin Morel, INRAE, France

Panoramic Room - Screen 1

14:00	Application of LCA methodology to a Recirculating Aquaponics System (RAS) prototype	Chiara Cirillo *, Lucia Vanacore, Giuseppe Carlo Modarelli, Antonio Luca Langellotti, Paolo Masi, Youssef Roupheal, Stefania De Pascale
14:05	Beyond sustainable food production: the potential of vertical farming in education and awareness-raising, the case of AlmaVFarm	Laura Carotti *, Elisa Frasnetti, Alessandro Pistillo, Giuseppina Pennisi, Francesco Orsini, Giorgio Gianquinto

14:10	Connecting farming systems: circular economy strategies within and between livestock and agricultural systems	Xavier Gabarrell Durany, Sara Molins-Cabaní *, Martí Rufi-Salís, Laura Talens, Pol Llonch
14:15	Exploring the adaptative capacities of entrepreneurial urban farmers: Case study of the impacts of Covid-19 pandemic and lockdown on French urban production	Véronique Saint-Ges *, Caroline Petit
14:20	Indicators and metrics to measure social impacts in city-region-food-systems (CRFS)	Kathrin Specht *, Runrid Fox-Kämper, Giuseppe Calore, Mara Petruzzelli, Francesca Monticone, Laura Carotti, Pietro Tonini
14:25	Policies for growing innovative City Region Food Systems. Results of an analysis in six European countries	Runrid Fox-Kämper *, Kathrin Specht, Anna Wissmann, Adam Curtis, Laura Martinez
14:30	Supplemental LED light to reduce structural shadings in a rooftop-integrated greenhouse where tomatoes are grown	Elisa Appolloni*, Giuseppina Pennisi, Andrea Crepaldi, Gaia Stringari, Francesco Orsini, Xavier Gabarrell, Giorgio Gianquinto
14:35	Agrotopia, a living lab for high tech urban horticulture within Europe	Ine Pertry *
14:40	Design of a "hot-spot" for beneficial insects in urban context	Giovanni Bazzocchi *, Andrea D'Aprile, Francesco Orsini
14:45	Development and study of Agrivoltaics adapted to urban and peri-urban food production systems	Roxane Huart *, Pierre Raulier, Haissam Jijakli
14:50	Development of a low-tech bioptic method using mineralised chicken and goat droppings to produce lettuces	Iris Szekely *, Pierre Raulier, Haissam Jijakli
14:55	Effect of rooting media and IBA treatment on rooting response of South African Dune spinach (<i>Tetragonia decumbens</i>): An underutilized edible halophyte	Avela Sogoni *, Muhali Olaide Jimoh, Learnmore Kambizi, Charles Petrus Laubscher

Session P5 - Horticultural therapy and Session 6 - Landscape and Health (Common to S7 and S9) Screen S09.2

Chair: Candice Schoemaeker, Kansas State University, USA

Panoramic Room - Screen 2

14:00	Purpose and function of food production in therapy programs in the United States	Rebecca Haller *
14:05	A study on the impact of herbs on emotion and brain responses	Yu Wen Wang *, Chun-Yen Chang
14:10	Exploring the correlation between landscape preference and scene using neural networks model	Yu Hsin Tung *, Li-Chih Ho, Chien-Chung Chen, Chun-Yen Chang
14:15	The sequence of scenes and the psychological responses	Ang Yeh *, Chun Yen Chang
14:20	Effect of participation in leisure horticultural activities on the loneliness of older adults: a correlational case study on Taichung ren'ai senior citizens' home in Taiwan	Chia-Yun Liu *

Session P4 - Challenges and innovations in sustainable production at level of farming techniques Screen S09.2

Chair: Chun-Yen Chang, National Taiwan University, Chinese Taipei

Panoramic Room - Screen 1

14:30	Uptake of lead by lettuce from moderately contaminated urban allotment garden soil: effect of self-produced composts	Laure Vidal-beaudet *, Alice Kohli, Liliane Jean-Soro, René Guénon
14:35	Will lettuces and tomatoes thrive in peri-urban wheat fields? Strategies, factors and implications of horticultural diversification for large-scale field crop farmers in the Parisian area	Kevin Morel *, Hector Mussillon

*Indicates presenting author

FRIDAY 19 AUGUST

SYMPOSIUM 9

14:40	Effect of vermicompost from cow manure on tomato yield	Issa Alé Ndiaye *, Mamadou DIATTE, Babacar LABOU, Etienne TENDENG, Serigne Sylla, Amadou Balde, Omar Seydi, Pape Diop, Serigne Omar Sene, Karamoko DIARRA
14:45	Effects of agro waste substrates on growth and yield performance of mushrooms (<i>Pleurotus ostreatus</i> (jacq.) p. kumm for livelihood in Benue state, Nigeria	Ngozi Ifeoma Odiaka *, Bayo David

Session P3 - Impacts and assesment of urban horticulture on sustainability of food systems and Session P4 -Challenges and innovations in sustainable production at level of farming techniques and production systems
Screen S09.1

Chair: Charles Laubscher, Cape Peninsula University of Technology, South Africa

Panoramic Room - Screen 1

17:10	Smart aquaponics (SMARTAP - project): small/ medium farm economic improvement model, environmental sustainability, monitoring and simplified management of big data	Carlo Nicoletto *, Johnny Moretto, Paolo Sambo
17:15	Sustainable urban agriculture in the post-industrial midwest	Frederick Michel *, Kip Curtis, Glennon Sweeney, Mary Rodriguez, Ajay Shah, Esha Shrestha
17:20	Effects of greenhouse covering films on yields of lettuces and herbs grown in organic pipe hydroponics in sub-tropical climate zone	Ting-I Lee *, Yi-Hsuan Hsieh
17:25	Particles and microbes on urban grown plant	Beatrix Waechter Alsanius *, Most Tahera Naznin, Emina Mulaosmanovic

Session P4 -Challenges and innovations in sustainable production at level of farming techniques
Screen S09.2

Chair: Runrid Fox Kämper, ILS, Germany

Panoramic Room - Screen 2

17:10	Horticultural orchard in soilless protected agriculture, an alternative for family farming	Eugenio Cedillo Portugal *, Leova Pamela Martínez Hernández
17:15	Present conditions and challenges on the fertilizer application by vegetable production farmers in Ouagadougou, the capital of Burkina Faso	Masakazu Yamada *, Salomé Ouedraogo Toukoumogo
17:20		
17:25	Urban Agriculture Demonstrator - Chambre Régionale d'Agriculture Pays de la Loire	Laura Perez *

S10: INTERNATIONAL SYMPOSIUM ON VALUE ADDED AND INNOVATION MANAGEMENT IN THE HORTICULTURAL SECTOR

ORAL PRESENTATIONS

Session O2 - Adapting governance, institutions and organizations to a changing world

Atrium 2

Chair: Prof. Helen Wallace, Centre for Planetary Health Food Security, Griffith University, Australia

10:30	Keynote: Organisation and performance of domestic horticultural chains in the global South	Paule Moustier *
11:00	Can there be value chains without values ? Shadow economies and value chains	Laurent Parrot *, Yannick Biard, Dieuwke Klaver, Edit Kabré, Henri Vannié
11:15	Institutional governance of varietal innovations in the plantain sector in Côte d'Ivoire	Euphrasie C. Angbo-Kouakou, Ludovic Temple *, Alexandre C. Assemien
11:30	Why fresh food producers use direct marketing in Northern France	Florentine Dupont *, Peter J. Batt

*Indicates presenting author

11:45	Governance of quality-driven Organizational Innovations in the Cocoa Value Chain in Ghana	Francis Nana Yaw Codjoe, Felix Ankomah Asante, Guillaume Soullier, Simon Bawakyillenuo, Syndhia Mathé *
12:00	Emergency preparedness: planning for the next normal	Eric Barrett *, Robert Leeds
12:15	Human-Centered Services Design of post-harvest processing resource integration knowledge service platform	Ming-Shu Yuan *, Hau-Xin Lin

Session O3 - Evaluating and supporting technology and product innovation in horticulture
Chair: Prof. Eric Barrett, Ohio State University, USA

Atrium 2

15:30	Functional analysis to strengthen an agricultural innovation process : the case of seedlings from stem fragments (PIF) plantain propagation technology in Cameroon	Nawalyath Soule Adam *, Ludovic Temple, Moïse Kwa, Syndhia Mathé
15:45	Technological potential and characterization of underutilized South American yam flour with food applications	Sandra Medina *, Juan Pablo Fernández-Trujillo, Maria Soledad Hernández Gómez
6:00	Emerging innovative strategies for cactus pear (<i>Opuntia</i> spp.) crop management in the horticultural sector	Brandon van Rooyen *, Maryna De Wit, Garry Osthoff, Johan van Niekerk
16:15	Challenge of implementing horticulture 4.0 innovations in the value chain	Marike Isaak *, Sabine Ludwig-Ohm, Walter Dirksmeyer
16:30	The cooperative apple processing enterprise VOG Products as a model for minimizing harvest and postharvest crop losses – an empirical case study from South Tyrol, Italy	Christian Fischer *, Christoph Tappeiner
16:45	Small-scale food processing and value-adding to improve smallholder livelihoods in the south Pacific	Helen Wallace *, Shahla Hosseini Bai, Bruce Randall, Craig Johns
17:00	Closing remarks S10	Syndhia Mathes, David Neven, Giang Duong, Ludovic Temple

E-POSTER FLASH PRESENTATIONS

Session P2 - Various ways to innovate and add value in horticultural value chains
Screen S10.1

Atrium 2

Chair: Sandra V. Medina-López, Universidad Nacional de Colombia- Sede Bogotá, Colombia

14:00	Economic evaluation of alternative packaging to plastic for fruits and vegetables	Nasser Seyni *
14:05	Vegetables for food security and economic growth in Indonesia	Michael Böhme *, Idha Widi Arsanti
14:10	Experience sharing of plant protection information integration in Taiwan	Man Hsia Yang *, Chun Tang Lu
14:15	Design and evaluation of a mixed alcoholic beverage made with Asaí (<i>Euterpe Precatoria</i> Mart.) and Copoazú (<i>Theobroma grandiflorum</i>)	Maria Soledad Hernandez *, William Quintero, Raquel Oriana Diaz
14:20	Managing rising water costs via high density planting of avocado orchards in Southern California	Etaferahu Takele *
14:25	Challenges and strategies: the Guava industry, patent analysis and layout of Taiwan	Ming-Shu Yuan *, Wen-Li Lee

Session P3 - Evaluating and supporting technology and product innovation in horticulture
Screen S10.1

Atrium 2

Chair: Eric Barrett, Ohio State University, USA

14:35	Cost benefit analysis of netting technology in real farming conditions among smallholder farmers in Kenya	Laurent Parrot, Esther Mujuka, William Baird, Emilie Delettre, James Simon, John Mburu, Thibaud Martin *
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SYMPOSIUM 10

14:40	Do new realities imply new statistics ? The case of France and its overseas territories	Laurent Parrot, Camille Luis *, Magali Aubert
14:45	Metavers, what opportunities for the bioeconomy? Examples of modeling to act for Sustainable Development Goals	Anne Rollet *, Pierre-Yves Perez
14:50	'Futures By Design' - Integrating data science into Horticultural SMEs to improve productivity	Marcus Travers *, Emanuele Giovannetti, Magdalena Partac, William Davies

S12: INTERNATIONAL SYMPOSIUM ON WATER : A WORLDWIDE CHALLENGE FOR HORTICULTURE !

ORAL PRESENTATIONS

Session 03 - Water quality and recycling for irrigation: benefits and risks for health and environment Chair: Mehdi Ben Mimoun, INAT, Tunisia

Mercure Room - Screen 1

10:30	Keynote: Water and the horticultural sector : a case for advancing on the water-food-energy nexus	Sylvain Perret*
11:00	Microbiological assessment of wastewater irrigated peach trees	Giulio Demetrio Perulli *, Francesca Gaggia, Luigi Manfrini, Diana Di Gioia, Brunella Morandi
11:15	Evaluation of Contaminants of Emerging Concern (CECs) absorption and accumulation in plant irrigated with treated municipal wastewater	Alba Mininni *, Angela Pietrafesa, Francesco De Mastro , Barbara Casale, Giovanni Marino , Bartolomeo Dichio
11:30	Modelling and assessing environmental impacts of fertigation practices under field conditions: a case-study of chili-pepper using the Optirrig model	Koladé Akakpo *, Bruno Cheviron, Sami Bouarfa, Sahbi Bakouchi, Cryste Leauthaud
11:45	Impact of mulch and irrigation treatment on yield and fruit size of 'Bellise' sweet cherry over nine years	Martin Penzel *
12:00	Impact of water availability on oases agro-biodiversity in Kebili region in southern Tunisia	Haifa Benmoussa, Nabila El Kadri, Nadhira BenAissa, Mehdi Ben Mimoun *
12:15	Mulching for alternative orchard floor and water management positively affects water availability and weed control	Anna-Lena Haug *, Konni Biegert, Roy McCormick, Norbert Keutgen

Session 04 - Socio-economic dimensions in improving water management Chair: Sylvain Perret, Cirad, France

Mercure Room - Screen 1

15:30	A theoretical comparison of nursery and greenhouse growers' water conservation and treatment technology adoption in the United States	Alexa Lamm *, Laura Warner, Kristin Gibson, Kevan Lamm, Paul Fisher, Sarah White
15:45	Keeping the garden green: perspectives on improving water management within the domestic, public and amenity gardening sectors	Mark Gush *, Janet Manning, Ian Holman, Alistair Griffiths, Jerry Knox
16:00	Water-related climate adaptation strategies for the horticultural sector in the Western Cape, South Africa	Stephanie Midgley *,
16:15	FINAL DISCUSSION - SYNTHESIS OF THE MAIN POINTS Panel with the chairs. Short presentation of the main points that came out from days 1 and 2.	Brunella Morandi, Marcel Kuper

*Indicates presenting author

E-POSTER FLASH PRESENTATIONS

Session P3 - Strategies to enhance water management and adapt to climate change Screen S12.1

Mercure Room - Screen 1

Chair: Giulio Demetrio Perulli, University of Bologna, Italy

14:00	System Interpreting Electrophysiology Networks in Agricultural crops: The water case	Daniel Tran *, Gil Carron, Sandra Anselmo, Elena Najdenovska, Fabien Dutoit, Marco Mazza, Laura Elena Raileanu, Nigel Wallbridge, Carrol Plummer, Cédric Camps
14:05	Discrimination of olive genotypes tolerant to drought based on their physiological mechanisms	Ioanna Manolikaki, Chrysi Sergentani, Georgios Koubouris *
14:10	Drainage ratio influences strawberry fruit quality and shelf-life via regulation of secondary metabolite contents	Jwayeong Cho *, DaHye Ryu, HoYoun Kim, ChuWon Nho
14:15	Herbaceous sap flux as an estimate of whole plant transpiration for irrigation management	Kahlin Wacker *, Gaylon Campbell
14:20	The effect of crop cultivation systems on soil moisture availability	Mary Harty *, Gary Gillespie, David Hobson, Kevin McDonnell
14:25	Apricot water relation and fruit growth under progressive water stress conditions	Melissa Venturi *, Andrea Giovannini, Saray Gutierrez-Gordillo, Luigi Manfrini, Luca Corelli Grappadelli, Brunella Morandi
14:30	Validation of a simple canopy conductance model for estimating transpiration of different citrus species under non-limiting soil water conditions	Ncamsile Shongwe *, Nicolette Taylor, John Annandale
14:35	The development of a real-time irrigation decision tool for asparagus	Noémie Hisette *, Joke Vandermaesen, Joris De Nies
14:40	OrnAqua: an irrigation reference framework for efficient water use in hardy nursery stock production	Paulien De Clercq *, Pieter Janssens, Kathy Steppe, Dominique Van Haecke, Bruno Gobin, Marie-Christine Van Labeke
14:45	Plant Electrophysiology for smart greenhouse irrigation management	Sandra Anselmo, Elena Najdenovska, Fabien Dutoit, Laura Elena Raileanu, Nigel Wallbridge, Carrol Plummer, Cédric Camps, Daniel Tran *

Session P4 - Agroecological approaches to enhance water use efficiency Screen S12.2

Mercure Room - Screen 2

Chair: Kolade Akakpo, Cirad, France

14:00	Efficient fruit agroforestry systems on water management	Baptiste Labeyrie *
14:05	Quantification of nutrient and sediment movement into a Piedmont Ecoregion irrigation reservoir with irrigation return flow and stormwater	Sarah White *, Morgan Tomlin, Mohammad Nayeb Yazdi, James S. Owen Jr.
14:10	Use of superabsorbent polymer in processing tomato (<i>Solanum lycopersicum</i> L.) under water stress condition in Mediterranean	Vito Aurelio Cerasola *, Lorenzo Perlotti, Giuseppina Pennisi, Francesco Orsini, Giorgio Gianquinto
14:15	Agroecological transition and adaptation to climate change of the Espelette chilli pepper production systems: Presentation of the 2022-2024 pilot project and the 2021 preliminary results	Cyril Dejean, Jean Marie Lopez *, Elodie Nguyen, Julien Boyer, Antoine Leguillou, Claire Serra Wittling
14:20	Value chain management for enhancing water productivity in rainfed areas	Harishchandra Prasad Singh *, Babita Singh
14:25	Growth development and Water Footprint assessment of nursery young olive trees (<i>Olea europaea</i> L. 'Konservolea') irrigated with urban treated wastewater	Konstantina Fotia *, George Nanos, Pantelis Barouchas, Markos Giannelos, Aikaterini Linardi, Aikaterini Vallianatou, Paraskevi Mpeza, Ioannis Tsirogiannis
14:30	Irrigation scheduling has limited effects on productivity of field-grown pak choi (<i>Brassica rapa</i> l. spp. <i>chinensis</i>) in non-drought years	Andrej Svyantek, Sarah Bogenrief, Matthew Brooke, Zhuoyu Wang, Venkateswara Kadium, Collin Auwarter, Harlene Hatterman-Valenti *

FRIDAY 19 AUGUST

S14: INTERNATIONAL SYMPOSIUM ON SUSTAINABLE CONTROL OF PESTS AND DISEASES

Symposium supported by :



ORAL PRESENTATIONS

Session 06 - Genetics and mechanisms underlying plant resistance and pathogen virulence

Chair: Marie-Agnès Jacques, INRAE IRHS, France

Grand Angle Room B - Screen 1

10:30	Antifungal natural products targeting the Unfolded Protein Response (UPR) as an alternative to crop protection	Thomas Charpentier *, Anne-Marie Le-Ray Richomme, Guillaume Viault, Nelly Bataillé-Simoneau, Thomas Guillemette, Pascal Richomme
10:45	Strawberry cultivar responses to <i>Fusarium oxysporum</i> f. sp. <i>fragariae</i> density in soil	Oleg Daugovish *, Akif Eskalen, Karina Elfar Aedo, Ana Pastrana-Leon
11:00	Sticky apple PR proteins: amaranthin like-lectins agglutinate the fire blight bacterium <i>Erwinia amylovora</i> by charge-charge interaction	Alexandre Degrave *, Erwan Chavonet, Matthieu Gaucher, Marie-Noëlle Brisset, Antoine Bodelot, Christelle Heintz, Raphaël Cournot, Anthony Juillard, Göran Widmalm, Cyril Hamiaux, Joanna Bowen, Romain Warneys
11:15	Epigenetics of long-lasting post-harvest resistance in tomato	Katie Stevens *, Victoria Pastor, Marco Catoni, Estrella Luna Diez
11:30	De novo genome sequencing of <i>Eremocitrus glauca</i> and <i>Murraya</i> spp. as sources of resistance to citrus Huanglongbing	Concetta Licciardello *, Simone Scalabrin, Giusi D'Amante, Maria Patrizia Russo, Paola Caruso, Marco Caruso, Michele Vidotto, Mônica Neli Alves, Nelson A. Wulff, Davide Scaglione, Leandro Peña
11:45	High throughput sequencing testing of certified apple M9 rootstocks	Josef Spak *, Igor Kolonuk, Jaroslava Pribylova, Ondrej Lenz, Jiri Sedlak, Frantisek Paprstejn
12:00	Development of a new concept in plant protection applied to apple scab	Bruno Le Cam *, Rémi Bauduin, Marie Noëlle Bellanger, Marie Noëlle Brisset, Valérie Caffier, Gilles Christy, Frédérique Didelot, Anne duval-Chaboussou, Maiwenn Gadras, Matthieu Gaucher, Christophe Lemaire, Jean Lemaguet, Arnaud Lemarquand, Claire Pascouau, Véronique Saint Gès, Mélanie Sannier, Yohana Laloum
12:15	Development and validation of qPFD® for carrot: an efficient diagnostic tool to identify and optimize the use of plant resistance inducers	Sitti Anlati Moussa, Valérie Le Clerc *, Claude Emmanuel Koutouan, Anita Suel, Marie-Noëlle Brisset, Matthieu Gaucher, Mathilde Briard

E-POSTER FLASH PRESENTATIONS

Session P4 - Alternative control methods III

Screen 14.1

Chair: Laurent Urban, Avignon University, France

Grand Angle Room B - Screen 1

14:00	Case study of agricultural adaptation for the climate change impact on crop diseases in Taiwan- integrated management of green onion Phytophthora blight induced by heavy rainfall	Jinhsing Huang *, Chin-Ya Yuan
14:05	Cyst nematode management with resistant trap plants, a new agroecological model for carrot production	Ségolène Dandin *, Bruno Pitrel

*Indicates presenting author

14:10	Impact of different high tunnels and insect-proof barrier on crop microclimate, productivity and pest management of raspberries and blueberries	Andréane Couture *
14:15	The effect of irradiation on Jiotillas (<i>Escontria chiotilla</i> Weber) quality physical, chemical and sensory parameters	Lourdes Maria Yanez-Lopez *, Miguel Armella, Ivan M Moreno-Chamorro, Karen M De la Sancha-Vázquez
14:20	Possibilities for reducing pesticides by single-row covering in apple orchards	Michael Zoth *, Dominikus Kitemann, Franziska Reinhard
14:25	Development of Pepper veinal mottle virus vaccines for cross protection in solanaceous crops by nitrous acid-induced mutagenesis	Tsung-Chi Chen*, Guan-Da Wang
14:30	Monitoring and control method of <i>Contarinia pyrivora</i> in pear organic orchard	Benjamin Gandubert *, Marion Decultot
14:35	Small fruit production in France faced with the challenge of the scarcity of synthetic plant protection products	Anne Duval-Chaboussou *
14:40	Box hedge alternatives: key findings after 8 years of experiment in the south-west of France	Maxime Guérin *, Caroline Eyssan, Jean-Marc Deogratias, Tabone Elisabeth
14:45	Characterizing spray deposition for control of trunk pests from an experimental airblast sprayer with 5-port nozzle bodies	Lauren Fessler, Wesley Wright, Grace Piestch, Liesel Schneider, Heping Zhu, Cody Fust, Amy Fulcher *
14:50	Dispersal of <i>Neophytophthora tropicalis</i> in vineyards with plastic cover	Lilian Amorim *, Ana Simes, Pamela Dutra
14:55	Effect of injury type and packaging material on the incidence and severity of postharvest soft rot on selected potato cultivars	Tlangelani Nghondzweni *, Reinette Gouws-Meyer, Retha Slabbert

Session P5 - Detection and characterization of pests and diseases IV

Screen S14.2

Chair: Cameron Cullinan, Bolzano University, Italy

Grand Angle Room B - Screen 2

14:00	Seed pathway for pest dissemination: ISTA Reference Pest List, a bibliographic resource in non-vegetable plant species	Nicolas Denance *, Valérie Grimault
14:05	Validation of a <i>Ascochyta rabiei</i> detection method on Chickpea seeds	Isabelle Serandat *, Lorine LE DARÉ, Céline LE GUISSQUET, Agathe PENANT, Quentin LAMBERT, Valérie Grimault
14:10	ToBRFV: from detection to disease resistance testing	Isabelle Serandat *, Sophie Perrot, Thomas Baldwin, Valérie Grimault
14:15	Specific and sensitive detection of <i>Fusarium oxysporum</i> f.sp. <i>lactucae</i> races 1 and 4 in soil, plant, and surface samples via novel race-specific qPCR assays and target enrichment	Hanna Mestdagh *
14:20	Survey on the damage caused by <i>Halyomorpha halys</i> in fruit production	Esther Bravin, Julien Kambor *
14:25	Identification of the fungal organisms constituting sooty mould on gold3 and hayward kiwifruit	Simone Blackwood *, Seona Casonato, Eirian Jones, David Logan, Monika Walter
14:30	Betasatellites associated geminivirus diseases, a risk for vegetable crops in the Mediterranean area	Ghandi Anfoka, Michel Peterschmitt, Cica Urbino *
14:35	Tomato yellow leaf curl virus- IS76, a textbook case of viral emergence triggered by host shift	Margaux Jammes *, Cica Urbino, Mikhail Pooggin, Clémence Plissonneau, Michel Peterschmitt
14:40	Identification of biotypes of the woolly apple aphid (<i>Eriosoma lanigerum</i>) in the United Kingdom	Cindayniah Godfrey *, Michelle Fountain, Felicidad Fernández Fernández, Tom Pope, Simon Segar
14:45	Validation of two internationally standardized detection methods (<i>Peronospora</i> and <i>Phoma valerianellae</i>) on corn salad seeds for ISHI-Veg	Geoffrey Orgeur *, Juliette Desliles, Valérie Grimault

SYMPOSIUM 14

14:50	Development of pathosystems to test the efficiency of new alternative methods of treatments	Geoffrey Orgeur *, Valérie Grimault
Session P5 - Detection and characterization of pests and diseases IV Screen S14.3 Chair: Andres V. Casas Diaz, Univ. Nac. Agraria, Peru		Grand Angle Room B - Screen 3
14:00	Lettuce <i>Fusarium oxysporum f. sp. lactucae</i> , evolution of knowledge	Sophie Perrot *, Isabelle Serandat, Geoffrey Orgeur, Valérie Grimault, Mathieu Pel, Enrick Georges
14:05	Morphological characteristics and pathogenicity of <i>Alternaria</i> and <i>Stemphylium</i> isolates on tomato in vitro	Lilija Duckena *, Gunita Bimsteine
14:10	Impact of non-target insect accumulation in traps on sea buckthorn fruit fly <i>Rhagoletis batava</i> trap catches in sea buckthorn <i>Hippophae rhamnoides</i> plantations	Edite Jakobsone *, Regina Rancane, Laura Ozolina-Pole, Janis Gailis
14:15	Insect community composition and functional groups within models regarding distinct pesticide managements	Rodrigo Araujo *, Carlos de Melo, Claudio Salas, Cristián Valdez, Monika Ruiz, Anibal Valencia
14:20	Diversity of natural enemies associated with arthropod pest of vegetable crop in Senegal	Etienne Tendeng *, Babacar LABOU, Mamadou Diatte, Elhadji Serigne Sylla, Amadou Baldé, Oumar Seydi, Pape Diop, Issa Alé Ndiaye, Serigne Omar Sene, karamoko Diarra
14:25	Diversity of natural enemies associated with potato pests in Senegal	Pape Diop *, Babacar Labou, Elhadji Serigne Sylla, Etienne Tendeng, Mamadou Diatte, Amadou Balde, Omar Seydi, Serigne Omar Sene, Issa Ale Ndiaye, Karamoko Diarra

S16: INTERNATIONAL SYMPOSIUM ON INNOVATIVE PERENNIAL CROPS MANAGEMENT

ORAL PRESENTATIONS

Session 03 - Innovations in orchard practices and stressors mitigation Chair: Sara Serra, Washington State University, United States of America		Open Garden Room - Screen 1
10:30	Protected cropping of sweet cherry: microclimate and fruit quality	Cameron Stone *, Dugald Close, Sally Bound
10:45	Foliar Calcium applications and crop load regulation in sweet cherry (<i>Prunus avium</i> L.) trees trained in KGB	Maritza Matteo *, Juan Pablo Zoffoli, Marlene Ayala
11:00	Adaptability of apple, plum and cherry genotypes to diverse South African growing conditions	Esme Louw *, Iwan Labuschagne, Anika Kock, Chad van Wyk, Tristan Dorfling, Willem Steyn
11:15	Apple replant disease - new insights into an old problem	Traud Winkelmann *
11:30	Irrigation during ripening may reduce sunburn damages on berries of cv. Sangiovese (<i>Vitis vinifera</i> L.)	Gianluca Allegro *, Chiara Pastore, Gabriele Valentini, Riccardo Mazzoleni, Ilaria Filippetti
11:45	Effect of different reflective ground covers on light reflection and on the coloring of apples at harvest	Luis Gonzalez Nieto *, Terence Robinson
12:00	Growth unit characteristics and light environment affect leaf fall in the evergreen mango tree	Emma Carrié *, Isabelle Grechi, Frédéric Boudon, Elzbieta Frak, Frédéric Normand, Didier Combes
12:15	Trunk injection of plant protection product to protect chestnut tree from fruit borers <i>Cydia splendana</i> and <i>Pammene fasciana</i>	Florence Verpont *, Adeline Renier, Nathalie Lebarbier

E-POSTER FLASH PRESENTATIONS

Session P2 - Innovations towards orchard optimization - II - tree architecture and modeling Screen S16.1 Chair: Katherine Jarvis-Shean, University of California, USA		Open Garden Room - Screen 1
14:00	Canopy and root growth of young olive trees in a high-density orchard	Enrico Maria Lodolini *, P. Gabriella Lucchese, Alberto de Ludicibus, Matteo Zucchini, Samuele Crescenzi, Veronica Giorgi, Davide Neri
14:05	Yellow kiwi fruit and high VPD – improving size since early development	Alexandra Boini *, Alessandro Bonora, Luca Corelli Grappadelli, Brunella Morandi, Luigi Manfrini
14:10	Defoliation of apple trees before harvest influences red skin colour and ripening	Konni Biegert *, Roy McCormick
14:15	The efficiency of ACC in the fruit thinning of Maxigala apple applied in four stages and five concentrations	José Luiz Petri *, André Amarildo Sezerino, Marcelo Couto
14:20	Breeding in European pear (<i>Pyrus communis</i>) for red-skinned and red-fleshed fruit - the red-skinned gene C affects tree habit and flowering time	Yves Lespinasse *, Philippe Guérif, Arnaud Guyader
14:25	Canopy growth and architecture of five olive cultivars for high-density orchards	Enrico Maria Lodolini *, P. Gabriella Lucchese, Alberto de Ludicibus
14:30	Advances in the chestnut nursery industry: the new <i>Castanea</i> spp. Conservation and Certification Center	Giovanni Gamba *, Maria Gabriella Mellano, Dario Donno, Eva Malacarne, Marco Rocca, Marco Corgnati, Paola Bergero, Gabriele Loris Beccaro
14:35	Cherry tree growth in response to varying soil apparent electrical conductivity	Martin Penzel *, Nele Handtke, Evgeny Gubin, Manuela Zude-Sasse
14:40	Horticultural evaluation of clonal walnut rootstocks	Katherine Jarvis-Shean *, Bruce Lampinen, Samuel Metcalf, Charles Leslie, Carolyn DeBuse
14:45	Control of fruitlet abscission in mango	Avinash Chandra Rai, Eyal Halon, Hanita Zemach, Adi Faigenboim, Sonia Philosoph-Hadas, Shimon Meir, Yuval Cohen, Vered Irihimovitch *
14:50	Photosynthetic response of <i>Plukenetia Volubilis</i> L. to light intensity and soil water availability in young plants	Jaime Barrera *, Bernardo Giraldo, Maria Hernandez, Orlando Martinez, J Vitar
14:55	Ecophysiological responses of cupuassu tree ecotypes (<i>Theobroma grandiflorum</i>) in an agroforestry system designed with rubber trees in the Colombian Amazon	Jaime Barrera *, Armando Sterling, Luz Marina Melgarejo, Maria S Hernandez, Diego Caicedo
Session P2 - Innovations towards orchard optimization - II - tree architecture and modeling Screen S16.2 Chair: Mekjell Meland, Norwegian Institute of Bioeconomy Research, Norway		Open Garden Room - Screen 2
14:00	Influence of different pruning solutions in kernel production of a super high density almond orchard	Antonio Fernando Bento Dias *, José Falcão, José Reis, Jorge Rebola, Anacleto Pinheiro
14:05	Variation in pre-harvest rind disorder susceptibility among mandarin varieties	Ashraf El-Kereamy *, Suejin Park, Alaaeldin Rezk, Mary Lu Arpaia, Greg Douhan, David Obenland
14:10	Determining rootstock incompatibility for Patterson Apricot	Kari Arnold *, Roger Duncan, Maher Al Rwahnih, Daniel Green, Jacqueline Vasquez-Mendoza, Leslie Alfonso, Cole Margarite
14:15	Architecture and yield relationship in hazelnut tree	Francesca Grisafi *, Daniela Farinelli, Evelyne Costes, Frédéric Boudon, Jean-Baptiste Durand, Sergio Tombesi
14:20	Understanding source-sink relationships in sweet cherry (<i>Prunus avium</i> L.) using the Kym Green Bush training system	Marlene Ayala *, María Paz Quiróz, Victor Blanco, Juan Pablo Zoffoli

*Indicates presenting author

14:25	Effect of calcium cyanamide treatment on bud dormancy release and fruit traits of persimmon	Wei-Chen Wang *, Chia-Wei Song
14:30	Evaluation of potential alternatives to hydrogen cyanamide in kiwifruit budbreak: a case study in South Italy	Egidio Lardo , Alba Mininni *, Yulia Kiryakova, Cipriano Loiudice, Giuseppe Carlucci , Marco Mastroleo, Evangelos Xylogiannis
14:35	Profiling and ratio of main sugar and phenolic component in early developing apple fruitlets	Milica Fotiric Aksic, Tomislav Tosti, Uros Gasic, Nikola Horvacki, Radosav Cerovic, Zivoslav Tesic, Mekjell Meland *
14:40	Effect of floral differentiation on shoot morphology and consequences on canopy light interception based on 3D virtual plants	Xiaoyun Zhang, Kai wang, Xiuling Li, Weiwei Yang *
14:45	Behavior of some almond cultivars at Research Station for Fruit Growing Constana	Mihai Cosmin-Alexandru *, Mihaela Baluta, Florin Stanica, Corina Gavat
14:50	The effect of different mango training systems on light transmission within the canopy	Kare Mahmud *, Paula Ibell, Carole Wright, Zac Scobell, Ian Bally, Dave Monks
<p>Session P3 - Innovations in orchard practices and stressors mitigation Open Garden Room - Screen 3 Screen S16.3 Chair: Esme Louw, Stellenbosch University, South Africa & Sara Serra, Washington State University, USA</p>		
14:00	Variability in crosses for pear rootstocks adaptation to global warming	Marie-Helene Simard *, Christian Cattaneo, Michel Boucourt, marie-laure Genouël, david lanoue
14:05	Preliminary results on the effect of AVG (ReTain®) and 1-MCP (Harvista™) applied at bloom on fruit set, yield, and apple size in WA 38 cultivar	Sara Serra *
14:10	Investigating the effect of different autumn, winter, and spring temperature scenarios on bud break in apple trees	Esme Louw *, Laura Allderman, Willem Steyn, Nigel Cook
14:15	The effect of roots and leaves on bud break of apple shoots under forcing conditions during dormancy research	Esme Louw *, Laura Allderman, Willem Steyn, Nigel Cook
14:20	Graft incompatibility in chestnut: a multidisciplinary approach for an early identification in Castanea spp	Giovanni Gamba *, Dario Donno, Maria Gabriella Mellano, Gabriele Loris Beccaro
14:25	The effect of plant growth regulators on the establishment of tissue culture and offshoot date palm (<i>Phoenix dactylifera</i>)	Peggy Mauk *, Rui Li, Anthony Fortier, Carol Lovatt
14:30	Evaluation of almond cultivars from an integrated pest management perspective	Phoebe Gordon *, Bruce Lampinen, Luke Milliron, Roger Duncan, Dani Lightle, Joseph Connell, Raman Brar, Clarissa Reyes, Jacqueline Vasquez-Mendoza
14:35	Comparison of socio-economic conditions of plantation workers of two cocoa plantations in Colombia	Daniel Kalnin *
14:40	Study of changes in practices carried out by growers aiming to reduce the use of inputs in sugarcane systems on Reunion island: case study of the east and west zones	Ines Shili Touzi, Marie Mawois, Axelle IONESCU, Arthur Launay, Michel Vaillant, Hélène Jarousseau , Jean Marie Paillat, Daniel Kalnin *
14:45	Phenological expression influenced by the sum of active temperatures and by cultivar in apricot	Imad Al-Suwaid, Sorin Iozu, Cosmin Mihai, Ana Cornelia Butcaru, Florin Stanica *
14:50	Effect of different biostimulants and foliar fertilisers on fruit quality in <i>A. chinensis</i> var. <i>chinensis</i> in Italy	Francesco Spinelli *, Irene Donati , Claudia Onofrietti , Niccolò Raule, Antonio Cellini, Davide Pellegrini, Evangelos Xylogiannis
14:55	Effect of trunk girdling on fruit production, quality and storability in <i>A. chinensis</i> var. <i>chinensis</i> in Italy	Francesco Spinelli *, Irene Donati , Claudia Onofrietti , Niccolò Raule, Antonio Cellini, Letizia Manzoni, Evangelos Xylogiannis

S18: III INTERNATIONAL SYMPOSIUM ON MECHANIZATION, PRECISION HORTICULTURE, AND ROBOTICS: PRECISION AND DIGITAL HORTICULTURE IN FIELD ENVIRONMENTS

Symposium supported by :



ORAL PRESENTATIONS

Session O4 - Innovative Sensing

Botanical Room - Screen 1

Chair: David Rousseau, University of Angers, France

10:30	A deep learning-based web application for segmentation and quantification of blueberry internal bruising	Xueping Ni, Fumiomi Takeda, Huanyu Jiang, Wei Yang, Seiya Saito, Changying Li *
10:45	Modeling 3D architecture of adult peach trees (<i>Prunus persica</i>) using remote sensing data	Sindhuja Sankaran *, Eduardo Carlos, Mugilan Raman
11:00	Non-destructive sensing-based algorithm for estimating tomato fruit quality traits for agricultural smart robotic systems	Eitan Fass *, David Helman, Carmit Ziv
11:15	Handheld shake-and-catch system improves cider apple harvest efficiency	Matthew Whiting *, Haydn Lenz
11:30	Automatic fasciation detection in salad with 2D X-ray imaging	David Rousseau *, Hamdy Sherif, Aurélie Charrier, Pejman Rasti, Emilie Guiloteau, Jordane Messaka
11:45	Assessment of the universality of the electrophysiological signal acquired from tomatoes and eggplants	Elena Najdenovska *, Fabien Dutoit, Gil Carron, Daniel Tran, Carrol Plummer, Nigel Wallbridge, Cédric Camps, Laura Elena Raileanu

Session O5 - Prediction

Botanical Room - Screen 1

Chair: Mouad Zine el Abidine, University of Angers, France

15:30p	The potential of RGB camera for machine learning in nondestructive detection of nutrient deficiencies in apples	Antonio Viduka *, Goran Fruk, Martina Skendrovic Babojelic, Ana Marija Antolkovic, Rea Vrtodusic, Tomislav Karazija, Mihaela Satvar Vrbancic, Zoran Grgic, Marko Petek
15:45	Intelligent imaging methods to assess quality traits in bush bean breeding	Dirk Jollet *, Mark Müller-Linow
16:00	A comparison between relative fruit growth rate and fruit size distribution models to predict apple fruitlet abscission	Todd Einhorn *, Laura Hillmann, Stefano Musacchi, Sara Serra, Tom Kon, Terence Robinson, Luis Gonzalez Nieto, Mokhles Elsyss
16:15	Fruit yield estimation using image analysis is also about correcting the number of detections	Julien Sarron *, Léa Tresch, Hamza Bendahou, Jean Mathias Koffi , Nicephore Avlessi, C.A. Bassirou Sané, Emile Faye, Jérémy Lavarenne
16:30	Software architecture of OFMIS on tree fruit harvest timing and load	Hari Krishna Dhonju *, Kerry B Walsh, Thakur P Bhattarai

E-POSTER FLASH PRESENTATIONS

Session P2 - Precision Agriculture

Botanical Room - Screen 1

Screen S18.1

Chair: Matthew Whiting, Washington State University, USA

14:00	Using proximal sensing parameters linked to the photosynthetic capacity to assess the nutritional status and yield in quinoa	Daniel Cudjoe *, Frank Okyere, Nicolas Virlet, Pouria Sadeghi-Tehran, March Castle, Andrew Riche, Manal Mahda, Michel Ghanem, Toby Waine, Fady Mohareb, Malcolm Hawkesford
14:05	Precision nutrient management utilizing UAV multispectral imaging and artificial intelligence	Yiannis Ampatzidis *, Lucas Costa, Ute Albrecht

*Indicates presenting author

SYMPOSIUM 18

14:10	Development of a digital monitoring system for pear rust and fire blight in fruit orchards	Stefanie Reim *, Michael Pflanz, Virginia Mass, Johannes Seidl-Schulz, Matthias Leipnitz, Eric Fritzsche, Henryk Flachowsky
14:15	Effect of Using Spunbond in Tomato (<i>Solanum lycopersicon</i>) Production on yield and diseases During the Dry Season	Sylvie Desilles *, Lysette Lacambra, Marie Pelletier
14:20	Tuberzone – A Decision Support Tool constructed from a physiological model	Marcus Travers *, James Wilson, James Taylor, Craig Burness
14:25p	Characterization of plot spatial variability for efficient irrigation management	Jorge Parejo, Sandra Millan, Eugenio Marquez, José María Vadillo *, Antonio Sanchez, Carlos Campillo Torres
14:30	Observational detection methods for outdoor ornamental plant diseases	Inese Naburga *, Anta Sparinska, Janis Zvirgzds, Maris Kalinka
14:35	Outlook of the Agricultural Extension Mobile Application - Abu Dhabi case study	khawla Al Marzooqi *, Mohamed Alhammadi
14:40	Agri-food: which technologies to guarantee our health	Francesco Beltrame Quattrocchi *, Alessia Sortino, Gianluca De Leo, Tiziano Caruso, Angela Zinnai
14:45	Early Detection of fungal infection on cowpea seeds by NIR spectroscopy and thermal imaging	Doaa Shehata *, Gamal Elmasry, Nasser Mandour, David Rousseau, Etienne Belin
14:50	Use of VIS-NIR data for characterizing grapevine canopies: Remote and proximal sensing approaches at individual vine scale	Carlos Poblete-Echeverría *, Anke Berry, Jaco Luus, Melane Vivier

Session P3 - Innovative Sensing and Management Screen S18.2 Chair: David Rousseau, University of Angers, France

Botanical Room - Screen 2

14:00	Hyperspectral imaging in <i>Penicillium</i> spp. infection detection	Ana Marija Antolkovic *, Ana Marija Gotal, Antonio Viduka, Rea Vrtodusic, Marko Petek, Tomislav Karazija, Martina Skendrovic Babojelic, Mihaela Satvar Vrbancic, Zoran Grgic, Ante Loncaric, Bojan Sarkanj, Tihomir Kovac, Goran Fruk
14:05	Detection of fire blight in apple trees using hyperspectral imaging	Belal Gaci *, Florent Abdelghafour, Silvia Mas-Garcia, Marine Louagrand, Florence Verpont, Aude Moronvalle, Ryad Bendoula, Jean-Michel Roger
14:10	Detection of the spectral signature of <i>Phytophthora</i> root rot (PRR) symptoms using Hyperspectral Imaging	Carlos Poblete-Echeverría *, Adele McLeod, Sally Duncan
14:15	Deep learning-based detection of apple russetting from indoor to outdoor	David Rousseau *, Helin Dutagaci, Mouad Zine El Abidine
14:20	Deep learning-based detection of seedling development from controlled environment to field	David Rousseau *, Hadhami Garbougé, Pejman Rasti, Natalia Sapoukhina
14:25	Microclimatic control of grape drying process by intelligent sensors	Francesco Beltrame Quattrocchi *, Angela Zinnai, Fabrizio Palla, Piero Giorgio Verdini, Chiara Sanmartin, Monica Macaluso, Tiziano Caruso, Isabella Taglieri, Francesca Venturi
14:30	Prediction of vegetative growth, organ distribution, and fruit quality of strawberries cultivated in greenhouses using Artificial Neural Network	Woojoo Choi *, Myungmin Oh
14:35	Construction of flower bud diagnosis system using AI image analysis in strawberry cultivation	Seiji Matsuo *, Yoko Takahashi, Chiharu Tokor, Masahide Isozaki

Session P4 - Industry and Robotics Screen S18.3 Chair: Ines Hanharan, WTFRC, USA

Botanical Room - Screen 2

14:00	Characterizing spray deposition from variable- and constant-rate spray technologies: Implications for future optimization to target trunk and foliar pests	Lauren Fessler, Grace Pietsch, Wesley Wright, Heping Zhu, Xiaocun Sun, Amy Fulcher *
14:05	Evaluation of the influence of mechanical pruning in the performance of the Row-Side Continuous Canopy Shaking Harvester Prototype	Antonio Fernando Bento Dias *, José Falcão, Anacleto Pinheiro, José Peça
14:10	Horticulture 4.0 and The sociology of 4.0	Christian Rabin *
14:15	How to modulate mechanical winter pruning according to the productive and enological traits of four <i>Vitis vinifera</i> L. varieties cultivated in the North of Italy	Gianluca Allegro *, Gabriele Valentini, Chiara Pastore, Riccardo Mazzoleni, Roberta Martelli, Fabio Pezzi, Ilaria Filippetti
14:20	Geomatics in Support of Decisions on Variable Rate Applications- A case study in major banana growing region of India	Harishchandra Prasad Singh *, Jai Singh PARIHAR
14:25	Can fruit walls raise the prospects of sensing and robotic technology in apple production?	Lars Zimmermann *, Cory Whitney, Eike Luedeling, Martin Balmer
14:30	Intelligent spray technology controls pests in nursery and orchard systems with reduced pesticide application rates	Lauren Fessler *, David Lockwood, Wesley Wright, Grace Pietsch, Xiaocun Sun, Whitney Yearly, Heping Zhu, Amy Fulcher
14:35	A phenotypic platform for monitoring temperature on apple surface	Nikos Tsoulas *, Sven Jörissen
14:40	Weed management in French apple cider orchard with automated and autonomous mowers	Jean Le Maguet *, Bernard Benet, Nathalie Corroyer, Bruno Corroyer, Matthieu Benoit, Alice Denis, Gaël Lebon, Jean-Charles Cardon
14:45	A low-cost multi-sensor system for automated in situ monitoring of plant in vitro culture	Hans Bethge *, Thomas Rath, Traud Winkelmann
14:50	Environmental monitoring analysis in greenhouse for the cultivation of mother plants of <i>Cannabis sativa</i> in the colombian Andes mountains	Paula Andrea Uribe Benavides *, Juan Manuel Galindo

S20: INTERNATIONAL SYMPOSIUM ON THE VITIVINICULTURAL SECTOR: WHICH TOOLS TO FACE CURRENT CHALLENGES?

ORAL PRESENTATIONS

Session O3 - Facing grapevine decline in a changing climate Chair: Piebiep Goufo, Universidade de Trás-os-Montes e Alto Douro, Portugal

Amphitheatre Volney

10:30	Keynote : Development of alternative strategies to sustainably manage grapevine trunk diseases from nursery to vineyard	Florence Fontaine *, Catarina Leal, Vincenzo Mondello, Olivier Fernandez, Laura Gérard, Patricia Trotel-Aziz
11:00	Datamining, a powerful tool to magnify an infinite source of information hitherto put aside	Jean-Michel Hily *
11:15	Role of fatty acids in the systemic defense of grapevine against esca complex disease-associated fungi	Piebiep Goufo *, Isabel Cortez
11:30	Use of a portable vis / NIR device to monitor the accumulation of anthocyanins during ripening in berries of Sangiovese cv (<i>Vitis vinifera</i> L) under heat wave conditions	Gabriele Valentini *, Gianluca Allegro, Chiara Pastore, Riccardo Mazzoleni, Giovanni Fiori, Andrea Galletti, Ilaria Filippetti

*Indicates presenting author

FRIDAY 19 AUGUST

SYMPOSIUM 20

11:45	An evaluation of the temperature inversion conditions to determine the usefulness of wind machines for frost protection in Mendoza, Argentina	Mark Battany *
Session 04 - Current challenges of viticulture in the production sector of table grapes, dried grapes and unfermented beverages Chair: Ahmet Altindisli, Ege University, Turkey		
Amphitheatre Volney		
15:30	Keynote: Current challenges of viticulture in the production sector of table grapes, raisins, and non-fermented beverages	Ahmet Altindisli *
16:00	Viticulture breeding studies in Turkey	Arif Atak *, Onur Ergonul, Metin Kesgin, Ahmet Altindisli
16:15	Effect of nano-fertilizer on cluster characteristics of table grapes	Youssef Sassine *, Narjes Jamal AlDine, Kiril Popov, Abed Al Rahman Al Eit, Israa El Masri
16:30	IMIDA-ITUM breeding program, new organic table grape varieties for the world	Manuel Tornel *, María José Candel, Marisa Serrano, Pablo Crespo
16:45	Contributions of photosynthetic parameters to overall gas exchange performance varied between vinifera and hybrid grape cultivars	Mu-Chen Liu, Kuo-Tan Li *
E-POSTER FLASH PRESENTATIONS		
Session P3 - Facing grapevine decline in a changing climate Screen S20.1 Chair: Benjamin Bois, Université de Bourgogne, France		
Room 05		
14:00	Looking beyond the traditional growing area to overcome grapevine decline- A case study of North-Eastern India	Harishchandra Prasad Singh *, Jai Singh Parihar
14:05	Impact of geotextile installation height on Vitis vinifera under cool-climate conditions of Québec, Canada	Caroline Provost *, Alexander Campbell
14:10	Etiology and epidemiology of pathogens causing grapevine trunk diseases in vineyards under climatic conditions of Quebec, Canada	Caroline Provost *, Alexander Campbell
14:15	Adaptation Strategies for resilient viticulture in Taiwan to cope with climate change	Ming-Te Lu *, Ming-Hui Liu, Iou-Zen Chen
14:20	Plant defense inducers promoting downy mildew protection on grapevines with distinct pattern of stilbene accumulation and different level of defense gene induction among cultivars	Amélie Chaigneau *, Caroline Servant, Florian Bryone, Amélie Lamothe, Morgane Desmots, Amélie Siegler, Elisa Thalinger, Caroline Bonneau
14:25	Untargeted metabolic profiling of leaves of Vitis vinifera L. plants with brown wood streaking and varying levels of symptom severity of grapevine leaf stripe disease (Esca complex)	Piebiép Goufo *, Isabel Cortez
14:30	How a regional conservation program helps farmers face challenges: the LODI RULES example	Stephanie Bolton *, Madelyn Kolber, Phil Abba, Aaron Shinn, Bruce Fry, Charlie Hamilton, Dirk Heuvel, Stanton Lange, Steve Quashnick, Warren Bogle, Stuart Spencer, Chris Storm
14:35	‘1103 Paulsen’ rootstock increases yield and fruit quality of ‘Chardonnay’ grape in Alabama growing conditions	Elina Coneva *
14:40	Water stress physiological response and aquaporin expression in own-rooted grapevine plants and wine grape rootstock/scion combinations (Vitis spp)	Andrea Galaz, Alonso Perez-Donoso, Marina Gambardella *

Session P2 - Breeding, characterization and preservation of grapevine genetical diversity and
Session 4 - Current challenges of viticulture in the production sector of table grapes, raisins, and non-fermented beverages
Screen S20.2
Chair: Gabriele Valentini, Università di Bologna, Italy

Room 06

14:00	Phenotyping grapevine (Vitis vinifera L.) landraces diversity in Bekaa valley, Lebanon	Mark Massaad, Joe Merheb, Stephanie Rahme, Lamis Chalak *
14:05	Results of three years grape (Vitis spp.) breeding programme	Arif Atak *, Abdulkaki Sen, Ozlem Boztepe, Yesim Doygaci, Gulhan G. Kandilli
14:10	The effects of streptomycin, gibberellic acid and synthetic cytokinin forchlorfenuron treatments on seed size of muscadine grape	Yutaro Osako, Tomohiro Kaite, Hisayo Yamane *, Takuya Morimoto, Akihiro Itai, Ryutaro Tao
14:15	Modeling evapotranspiration of off-season Table grapes vines grown in bi-annual cycles	Yishai Netzer *, Noa Ohana-Levi, Roni Michaelovsky, Rachel Sarel, Tovit Rosenzweig
14:20	Cover crops and rootstocks interaction on vine performances of organic Autumn Pearl table grape: first results of OLTRE.BIO research project	Luigi Tarricone *, Giovanni Gentile, Antonio Maria Amendolagine, Francesco Mazzone, Sabino Roccotelli, Gianvito Masi
14:25	Hormone compounds and expression of metabolite analysis of FT-IR spectroscopy data by bud position of ‘Campbell Early’ and ‘HongjuSeedless’ grape cultivars	Su Jin Kim *, Dong Hoon Lee, Youn Young Hur, Dong Jun Im, Kyeong-Ok Choi, Seo Jun Park
14:30	Effect of amino nano-fertilizer on berries growth of Lebanese traditional table grape	Youssef Sassine *, Narjes Jamal AlDine, Kiril Popov, Ali Atrach, Israa El Masri
14:35	Compare the effect of Nano and conventional fertilizers on Lebanese table grape Tfiyehi	Narjes Jamal AlDine *, Kiril Popov, Israa El Masri, Youssef Sassine

S22: INTERNATIONAL SYMPOSIUM ON NATURAL COLORANTS FROM PLANTS

ORAL PRESENTATIONS

Session 03 - Natural Colorants in Business and Industry
Chair: Polycarpe Kayode, University of Abomey-Calavi, Benin

Amphitheatre Inca

10:30	Keynote: Large scale production of dye-plants and plant extracts for industrial applications of natural dyes	Anne de la Sayette *
11:00	Waterless dyeing with plant-based natural dyes as safe colorants	Harold Freeman, Riikka Räisänen *, Gisela Umbuzeiro
11:15	Business using methods of natural dyeing techniques and future possibilities	Masaaki Aoki *
11:30	Exemple of an industrial use of natural dyes in natural fabrics	Stéphane Duchamp *
11:45	Study of plant-based colourants as raw materials for black ink	Nea Virta *, Päivi Laaksonen, Juha Jordan
12:00	Natural pigments for(bio)-plastics colouring	Christine Brunet *
12:15	Dye plants used for Cosmetic Applications: A patented world-wide innovation from Le Rouge Français	Laura Guillouzo *, Elodie Carpentier

Session 04 - Responsible Color: Cultural, environmental, and ethical sustainability
Chair: Mareshige Kojoma, Health Sciences University of Hokkaido, Japan

Amphitheatre Inca

15:30	Keynote: Networking in biocolour research – creating increasing value and impact	Riikka Räisänen *
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*Indicates presenting author

FRIDAY 19 AUGUST

SYMPOSIUM 22

16:00	Zero waste nettle ' process optimization to refine nettle into multi-purpose materials: textile fibres and colourants	Samica Sadik *, Riikka Räisänen
16:15	New biocolourant database for the quality control of natural colourants and products	Anja Primetta *, Riikka Räisänen
16:30	Color & Care Design	Delphine Talbot *
16:45	The unique natural dye in the world certified with a Protected Designation of Origin	Lorenzo Pérez *

E-POSTER FLASH PRESENTATIONS

Session P2 - Natural Colorants specifications
Screen S22.1
Chair: Dominique Cardon, CNRS, France

Amphitheatre Inca

14:00	Microbiology control of tinctorial plants and natural dyes extracts for cosmetic applications	Christine Brunet *
14:05	Lightfastness of natural colorants in coloration of plastic matrices	Juha Jordan *, Päivi Laaksonen
14:10	Reproducibility of industrial dyes and pigments from plants	Luc Lagarde, Christine Brunet *, Anne De La Sayette
14:15	Fruit and vegetable mixtures for health-promoting colored extruded snacks	Sandra Medina *, Maria Soledad Hernández Gómez, Juan Pablo Fernández-Trujillo

S24: INTERNATIONAL SYMPOSIUM ON HUMAN HEALTH EFFECTS OF FRUITS AND VEGETABLES - FAVHEALTH2022

ORAL PRESENTATIONS

Session 03 - Phytochemicals, health benefits, one health
Chair: Bhimanagouda S. Patil, Texas A&M University, US

Amphitheatre Lagon

10:30	Keynote: What does Science say about fruits and vegetables and health ?	Yves Desjardins *
11:00	Phytochemicals in diets: diversity, quantity and benefits in human healthcare	Marie Josèphe Amiot *
11:15	Role of seeds and seed sector in human health : « One Health » approach	Julia Zinsmeister *, Amandine Gautier, Sébastien Gardon, Szymon Swiezewski
11:30	Nutritional and health benefits of fern fiddleheads – a neglected green vegetables in European diet	Lenka Langhansova *, Marcela Dvorakova, Antonio Pavicic
11:45	Human health benefits of the Goji Berry plant, known as the Superfruit	Ilbilge Oguz *, Halil Ibrahim Oguz, Nesibe Ebru Kafkas

Amphitheatre Lagon

Session 04 - Food qualities
Chair: Yves Desjardins, Laval University, Canada

15:30	Keynote: Horticulture in the fight against malnutrition and environment deterioration	Kaleab Baye *
16:00	Elevated zeaxanthin accumulation in both fruit and leaf tissues of orange capsicum: can the leaf be used as a phenotypic marker for selection of high-zeaxanthin fruit?	Tim O Hare, Rimjhim Agarwal *, Hung Hong, Alice Hayward, Stephen Harper

16:15	Quality of sunflower petals (<i>Helianthus sp.</i>) for human nutrition as influenced by variety and type of processing	Anna J. Keutgen *, Katharina Graf, Norbert Keutgen
16:30	Impact of storage temperature on bioactive compound concentrations in strawberries	Hung Hong Trieu, Julius Rami, Michael Rychlik, Tim O'Hare, Michael Netzel *

E-POSTER FLASH PRESENTATIONS

Session P2 - Phytochemicals, food qualities, health benefits
Screen S24.1

Amphitheatre Lagon

Chairs: Bhimanagouda S. Patil, Texas A&M University, US & Yves Desjardins, Laval University, Canada

14:00	Phytochemical properties and bioactivities indigenous vegetables for health benefits	Dharini Sivakumar *, Millicent Managa, Petunia Mashiane, Tinotenda Shoko, Vimbainashe Manhivi, Reatha Slabbert
14:05	Impact of guinea pepper and cloves on eggplant leaves (<i>Solanum macrocarpon</i>) in vitro and in vivo antioxidant potentialities	Edith Agbo *, Cica Etoile Kouamé-Osnou, Albarin Grodji Gbogouri, Moussa Gbogbo, Kouakou Brou
14:10	Insoluble tannins are important functional components of dried persimmons for their bile acid-binding and excretion effects	Yasunori Hamauzu *, Erika Ikeda
14:15	Fruit and vegetable bars: antioxidant contents and texture optimization with prebiotic fiber addition	Sandra Medina *, Maria Soledad Hernández Gómez, Juan Pablo Fernández-Trujillo
14:20	Determination of antioxidant activity of olive oil cultivars in the region of Epirus, Greece	Paraskevi Mpeza *, Nikoletta Vitsiou
14:25	Lycopene from orange heirloom tomatoes ('Moonglow') reduces bone turnover in a rat model of osteoporosis	Umani Walallawita *, Frances Wolber, Ayelet Ziv-Gal, Marlina Kruger, Julian Heyes
14:30	Flesh colour, an indicator of beta-carotene levels and subsequent health benefits of mangoes	Tim O Hare *, Tatsuyoshi Takagi, Hung Hong, Natalie Dillon, Peer Schenk
14:35	Nasturtium (<i>Tropaeolum majus</i>) extracts inclusion in fruit-vegetable mixes beverages as nutraceutical product	Camila Andrea Avila Ortiz *, Andrés Giraldo Toro, Valentina Guzman, María Soledad Hernandez Gómez
14:40	Study on hydroethanolic extraction of antioxidant capacity and total phenolic compounds from <i>Tropaeolum majus</i>	Camila Andrea Avila Ortiz *, Andrés Giraldo Toro, Valentina Guzman, María Soledad Hernandez Gómez
14:45	An analysis on the effects of extractions and processing of Natal plums (<i>Carissa macrocarpa</i>) on anthocyanins, antioxidant properties, and inhibitory effect on glucosidase during simulated gastrointestinal digestion	Dharini Sivakumar *, Faith Seke, Vimbainashe Manhivi, Tinotenda Shoko, Retha Slabbert, Yasmina Sultanbawa
14:50	Effects of high-pressure homogenization processing on cabbage dietary fiber and its powder properties improvements	Sz-Jie Wu *, Yuan-Tay Shyu, Yu-Rou Chen, Shyu-Fei Shyu
14:55	Temperature and short-term waterlogging impact the degradation of plant pigments in kale (<i>Brassica oleracea L.</i>) extracted samples	Skyler Brazel *, Bikash Adhikari, T. Casey Barickman

*Indicates presenting author