

VI Postharvest Unlimited

ISHS International Conference 17-20 October 2017-Madrid



SCIENTIFIC PROGRAM

TUESDAY 17		
8:00-9:00	Registration	
9:00-9:15	Official Inauguration. Sala 'Retiro'	
9:15-11:00	SESSION I. Sala 'Retiro'	Postharvest Research and Industry Implications
	Moderator	Dr. Chris Watkins (USA)
9:15-9:45	Keynote	Dr. María Isabel Gil (SPAIN). Postharvest Research and Industry Implications.
9:45-10:00	I. O1. Harvest time and period of storage monitor quality attributes and concentration of elements in kiwifruits. Mehdi Sharifani, Fahimeh Khazzaf Moghaddam, Alireza Shakeri. IRAN.	
10:00-10:15	I. O2. Mathematical description of topography differences amongst four kiwifruit cultivars. Po-Han Leo Lai, Sunny George Gwanpua, Donald Bailey, Julian Heyes, Andrew East. NEW ZEALAND.	
10:15-10:30	I. O3. From the lab to the supermarket- Success factors in the commercial implementation of postharvest technologies - An analysis using case study methodology. Manuel Madrid. SPAIN.	
10:30-10:45	I. O4. Non-destructive and objective assessment of fruit quality and taste using PTR-MS. Bastiaan Brouwer, Fátima Pereira da Silva, Eelke Westra, Ernst Woltering. NETHERLANDS.	
10:45-11:00	I. O5. Preserving broccoli quality from harvest to retail: reducing cooling delays and use of 1-MCP. Gordon Rogers, Jenny Ekman, Adam Goldwater. AUSTRALIA.	
POSTER PRESENTATIONS (Sala Retiro, Screen 1. 17:00-18:30)		
I.P1	Single and double applications of 1 methylcyclopropene in prolonging the shelf life in soursop (<i>Annona muricata</i> L.). Marcos Ventura Vazquez-Hernandez, Gregorio Luna-Esquivel, Maria de Lourdes Arévalo Galarza. MEXICO.	
I.P2	"PIMPRENELLE", a laboratory for the automatic control of fruit quality. Antoine Martinez. FRANCE.	
I.P3	Sorting task as a rapid tool to explore sensory shelf-life in food products: a case study using smoothies of exotic and red fruit flavours. Rosa Oria-Almudi, M ^a Eugenia Venturini, Sara Remón, Eva Campo. SPAIN.	

I.P4	Postharvest quality of a thorny Andean blackberry (<i>Rubus glaucus</i> Benth) cultivar. Sandra Horvitz, Diana Chanaguano, Nahir Dugarte. ECUADOR.
I.P5	Effects of post-harvest low temperature conditioning of olive fruit on oil quality parameters. Athanasia Dourou, Stefano Brizzolara, Franco Famiani, Pietro Tonutti. ITALY.
I.P6	Assessment on shelf life and physicochemical parameters of Ginger (<i>Zingiber officinale</i>) incorporated value added buttermilk drink. Madushika Ranasinghe, Oshadi Bandara. SRI LANKA.
I.P7	Quality characteristics of sweet potato varieties according to storage period after harvest in Korea. Eom-Ji Hwang, Sang-Sik Nam, Joon-Seol Lee, Hyeong-Un Lee, Gyeong-Dan Yu, Jung-Wook Yang, San Go, Narayan Chandra Paul. REPUBLIC OF KOREA.
I.P8	Nondestructive determination of coconut oil using microwave dielectric constant sensing. Rattapong Suwalak, Chuwong Phongcharoenpanich. THAILAND.
I.P9	Effect of the operating conditions of a microwave equipment on quality and safety of fresh-cut produce. Giancarlo Colelli, Maria Luisa Amodio, Maria Lucia Val de Chiara. ITALY.
I.P10	Testing of ozone generating equipment to reduce ethylene during postharvest storage of fresh produce. Giancarlo Colelli, Maria Luisa Amodio, Maria Lucia Val de Chiara, Raffaele Simonelli. ITALY.
I.P11	The use of DA meter to assess apple and pear maturity in Chile. Carolina Torres, Anyela Valdivia, Gloria Jorquera, Omar Hernández. CHILE.
I.P12	Hyperspectral imaging and multivariate accelerated shelf life testing (MASLT) approach for determining shelf life of rocket leaves. Muhammad M. A. Chaudhry, Maria Luisa Amodio, Farahmand Babellahi, Giancarlo Colelli. ITALY.
I.P13	An overview of postharvest processing and value adding procedures for canarium nuts. Shahla Hosseini Bai, Tio Nevenimo, Godfrey Hannet, Dalsie Hannet, Kim Jones, Stephen Trueman, Elektra Grant, David Walton, Bruce Randall, Helen M. Wallace. AUSTRALIA.
I.P14	Construction and operation of an energy efficient, solar assisted, drying system for canarium nuts. Kim Jones, Tio Nevenimo, Brett Hodges, Shahla Hosseini Bai, Godfrey Hannet, Dalsie Hannet, Helen M. Wallace, Bruce Randall. AUSTRALIA.
I.P15	Non-destructive classification of 'Valencia' oranges according to SSC and pH by NIR. Karla R. Borba, Poliana C. Spricigo, Marcos David Ferreira. BRAZIL.
I.P16	The comparison of storage ability of 'yali' pear in different soluble solids contents grades based on non-destructive NIR reflectance spectroscopy detection. Wang Wenhui, Yanmin Du, Xiaohui Jia. CHINA.
I.P17	Challenges and technological solutions for measuring ethylene and 1-MCP across various locations and conditions. Debra Friedrichsen, Reza Shekarriz, Ralph Gäbler. USA
I.P18	Storability difference of sweetpotato varieties by the curing treatment. Gyeong-Dan Yu, Hyeong-Un Lee, Sang-Sik Nam, Kyeong-Bo Lee, Jung-Wook Yang, Eom-Ji Hwang. REPUBLIC OF KOREA.
9:45-11:00	SESSION II. Sala 'A10.8'
<i>Flowers: Senescence and Preservative Solutions</i>	

	Moderator	Dr. Margrethe Serek (GERMANY)
9:45-10:00	II. O1. Consequences of divergent vase solutions on post-harvest durability and quality of <i>Heliconia</i> inflorescences. Moumita Malakar, Pinaki Acharyya, Sukanta Biswas. INDIA.	
10:00-10:15	II. O2. Increasing the vase life of <i>Rosa hybrida</i> cv. Kardinal. Malik Fiaz Huss Ferdosi. PAKISTAN.	
10:15-10:30	II. O3. The effect of air humidity and postharvest treatments on vase life in <i>Bouvardia</i>. Julian Verdonk, Luka van Dien, Rob Schouten. NETHERLANDS.	
10:30-10:45	II. O4. Ethylene and ABA interplay in the regulation of petunia petal senescence. Alice Trivellini, Giacomo Cocetta, Antonio Ferrante. ITALY.	
10:45-11:00	II. O5. Role of corm rot in post harvest quality of gladiolus. Salik Nawaz Khan, Ambreen Sarwar, Malik Fiaz H Ferdosi. PAKISTAN.	
POSTER PRESENTATIONS (Sala Retiro, Screen 2. 17:00-18:30)		
II.P1	Effects of postharvest treatments on quality and vase life of cut rose (<i>Rosa hybrida</i>). Giacomo Cocetta, Alice Trivellini, Antonio Ferrante. ITALY.	
II.P2	Development of a cleaved amplified polymorphic sequence (CAPS) markers that may indicate ethylene sensitivity in miniature potted roses. Mohammad Al-Salam, Margrethe Serek. GERMANY.	
II.P3	Application of humid heat and chemical treatment on cut roses for reduction of <i>Botrytis</i> rot. Jihyun Lee, Jiweon Choi, Yeoungseuk Bae, Yoonpyo Hong. KOREA.	
11:00-11:30	Coffee Break	
11:30-13:15	SESSION III. Sala 'Retiro'	<i>Postharvest Physiology</i>
	Moderator	Dr. Pietro Tonutti (ITALY)
11:30-12:00	Keynote	Dr. Bart Nicolaï (BELGIUM). Systems Biology and Postharvest: Recent Advances.
12:00-12:15	III. O1. Interaction of hydrogen sulphide and ethylene on postharvest deterioration of Pak Choy. Hebah AL Ubeed, Ronald Wills, John Golding, Micheal Bowyer, Quan Vuong. AUSTRALIA.	
12:15-12:30	III. O2. Identification and quantification of the ethylene signalling components in tomato through targeted proteomics. Maarten Hertog, Clara Mata, Bertrand Fabre, Harriet Parsons, Kathryn Lilley, Bart Nicolaï. BELGIUM.	
12:30-12:45	III. O3. Does submerging of white asparagus shoots negatively affect postharvest spear quality? Werner B. Herppich, Guido Rux, Martin Geyer. GERMANY.	
12:45-13:00	III. O4. Oxidative stress and ripening-related reactions are key processes involved in sweet cherry cracking development both in the field and during postharvest storage. Jordi Giné, Gemma Echevarría, Elisabet Duaigues, Christian Larrigaudière. SPAIN.	
13:00-13:15	III. O5. Determination of ethylene production in order to finetuning harvest date and 1-methylcyclopropene application on Conference and Celina pears. Ann Schenk, Bart Nicolaï, Lieselotte Waterschoot. BELGIUM.	
POSTER PRESENTATIONS (Sala Retiro, Screen 2. 17:00-18:30)		

III.P1	Final color and lycopene content of tomatoes in relation to storage temperatures of the ripening fruit. Marita I. Cantwell, César San Martín Hernández, Jehan Ara, Gyunghoon Hong. USA.	
III.P2	Postharvest continuous ethanol vapor treatment stimulates ripening and ethylene production of banana fruit. Yasuo Suzuki, Kana Ishihara, Moeko Kajita, Eisuke Yamada. JAPAN.	
III.P3	Limiting pink discolouration in minimally processed Iceberg lettuce. Lorraine Fisher, Monica Hill, Andrew Boakes, Richard Colgan, Deborah Rees. UNITED KINGDOM.	
III.P4	Sensory description of textural and flavour changes during maturation of `Rojo Brillante´ persimmon. Alejandra Salvador, Rebeca Gil, Ayoub Fathi, Pilar Navarro, Cristina Besada. SPAIN.	
III.P5	Fruit cuticle metabolism is regulated by abscisic acid along orange (<i>Citrus sinensis</i>) ripening and in response to postharvest water stress. Paco Romero, M. Teresa Lafuente. SPAIN.	
III.P6	Effect of chitosan film on C₂H₄ emission and respiratory and antioxidant activities during `Cortibel´ guava ripening. Jurandi Gonçalves Oliveira, André Oliveira, Diederson Santana, Gláucia M. Silva, Thamiris F. Oliveira, Aline Angelica Oliveira, Luis Miguel Morales. BRASIL.	
III.P7	Primary and secondary metabolites, bioactive activity and physico-chemical characterization of <i>Pouteria lucuma</i> at different ripeness stages. Romina Pedreschi, Ana Aguilar-Galvez, Carmen Janampa, Claudia Mejía, Rosana Chirinos, Marianela Inga, Diego García, David Campos. CHILE.	
III.P8	Reactive oxygen species (ROS) effect on amyloplast changings during storage of potato (<i>Solanum tuberosum</i>). Claudia Carvalho, Richard Colgan, Debbie Rees. UNITED KINGDOM.	
12:00-13:30	SESSION IV. Sala 'A10.8'	<i>Physiological Disorders (Part I)</i>
	Moderator	Dr. Victor Rodov (ISRAEL)
12:00-12:15	IV. O1. 'Packhams Triumph' superficial scald susceptibility is affected by maturity at harvest. Gabriela Calvo, Ana Paula Candán, Christian Larrigaudière. ARGENTINE.	
12:15-12:30	IV. O2. Postharvest dip application of methyl jasmonate regulates chilling injury and fruit quality in Midnight Valencia sweet orange stored at different cold temperatures. Muneer Rehman, Zora Singh, Tahir Khurshid. AUSTRALIA.	
12:30-12:45	IV. O3. Effect of cold storage temperature and potential of silicon dips to mitigate chilling susceptibility of `M37´ mandarin citrus fruit. Tieho Paulus Mafeo, Nhlanhla Mathaba, Rhulani Beauty Shibambu. SOUTH AFRICA.	
12:45-13:00	IV. O4. Methods to predict bitter pit in `Golden Smoothee´ apples. Estanis Torres Lezcano, Simó Alegre, Inmaculada Recasens. SPAIN.	
13:00-13:15	IV. O5. Common and divergent metabolic responses of peach fruit stored at low temperatures. Stefano Brizzolara, Maarten Hertog, Bart Nicolai, Pietro Tonutti. ITALIA.	
13:15-13:30	IV. O6. Reassessing temperature and humidity storage conditions for maintaining quality of `Kakariki´ feijoa. Jacqueline Oseko, Andrew East, Julian Heyes. NEW ZEALAND.	

13:30-14:30	Lunch	
14:30-16:30	SESSION IV (Cont.) Sala 'Retiro'	Physiological Disorders (Part II)
	Moderator	Dr. Domingos Almeida (PORTUGAL)
14:30-15:00	Keynote	Dr. Lorenzo Zacarías (SPAIN). Genetics and Molecular Basis of Physiological Disorders.
15:00-15:15	IV. O7. Managing stem end flesh browning, a new physiological disorder of "Gala" apples. Jacqueline Nock, Franziska Doerflinger, Gilang Sutanto, Nurdan Tuna Gunes, Yosef Al Shoffe, Yiyi Zhang, Harrison Wright, John DeLong, Christopher B. Watkins. USA.	
15:15-15:30	IV. O8. Texture-microstructure relationship of leafy vegetables during post-harvest storage. Moges Retta, Verlinden Bert, Verboven Pieter, Bart Nicolai. BELGIUM.	
15:30-15:45	IV. O9. Untargeted metabolic profiling to develop biomarkers associated with internal browning in 'Cripps Pink' apples (<i>Malus domestica</i> Borkh.). Javier Sánchez, David Rudell, Carolina Torres. CHILE.	
15:45-16:00	IV. O10. Pre-storage short-term exposure of high CO₂ treatment alleviates chilling injury and delay fruit color development of tomato during cold storage. Me Hea Park, Peerapong Sangwanangkul, Jung Soo Lee, Hyun Jin Choi, Yoon Pyo Hong, Ji Weon Choi, Ji Gang Kim. REPUBLIC OF KOREA.	
16:00-16:15	IV. O11. Postharvest LED light affects ripening and chilling injury development in tomato. Rob Schouten, Wadih Ghanem, Emmanouil Lavdas, Céline C.S. Nicole, Julian Verdonk. NETHERLANDS.	
16:15-16:30	IV. O12. Pre climacteric modifications in developmental factors are associated with poor storage capacity in apple. Haya Friedman, Vikram Singh, Sanjay Joshi. ISRAEL.	
POSTER PRESENTATIONS (Sala A10.8, Screen 3. 17:00-18:30)		
IV.P1	Postharvest management of injury-induced pinking in romaine hearts. Marita I. Cantwell. USA.	
IV.P2	Nitric oxide fumigation alleviates chilling injury and regulates fruit quality in sweet orange stored at different cold temperatures. Zora Singh, Muneer Rehman, Tahir Khurshid. AUSTRALIA.	
IV.P3	Effect of harvest time, dehydration plus waxing and storage temperature on non-chilling and chilling rind physiological disorders of 'Benny' Valencia citrus fruit. Tieho Paulus Mafeo, Rivalani Granny Baloyi, Nhlanhla Mathaba. SOUTH AFRICA.	
IV.P4	Storage disorders in the time of software based systems. Daniel Alexandre Neuwald, Cécile Prunier, Nadine Klein, Dominikus Kitemann, Elke Weimann, Dirk Köpcke, Angelo Zanella, Oswald Rossi, Barbara Stürz, Klaus Marschall, Andreas Bühlmann, Daniel Würstl, Florian Jöhler, Klaus Altherr. GERMANY.	
IV.P5	Molecular response to cold storage in fruit of two zucchini cultivars differing in their chilling sensitivity. Fátima Carvajal, Raquel Rosales, Francisco Palma, Susana Manzano, Manuel Jamilena, Dolores Garrido. SPAIN.	
IV.P6	Effect of storage conditions on quality of persimmon produced under organic conditions. Alejandra Salvador, Ayoub Fathi, Rebeca Gil, Pilar Navarro, Cristina Besada. SPAIN.	

IV.P7	Effect of cold storage on fruit quality of blood oranges. Julia Morales Alfaro, Pilar Navarro, Cristina Besada, Rebeca Gil, Almudena Bermejo, Alejandra Salvador. SPAIN.	
IV.P8	The impact of scald development phenolic content. Anka Cebulj, Maja Mikulic Petkovsek, Robert Veberic, Ana Slatnar. SLOVENIA.	
IV.P9	Optimization of external Vis/NIR reflectance measurements to predict internal browning on `Cripps Pink` apples. Javier Sánchez Contreras, Carolina Torres. CHILE.	
IV.P10	Postharvest fruit quality in ethylene insensitive mutants of zucchini squash. Juan Luis Valenzuela, Alicia García, Susana Manzano, Encarnación Aguado, Jonathan Romero, Dolores Garrido, Manuel Jamilena. SPAIN.	
IV.P11	Using the DA meter to explore relationships between apple fruit maturity and physiological disorder incidence. Christopher B. Watkins, Yosef Al Shoffe, Kazem Arzani, Nurdan Tuna Gunes, Jacqueline Nock, Ayse Tulin Oz, Yiyi Zhang. USA.	
IV.P12	Superficial scald assessment on pears cv. Packham's Triumph grown in different microclimates and maturity at harvest. Carolina A. Torres, Francisca Mejías, Gloria Sepúlveda. CHILE.	
IV.P13	Metabolites changes during superficial scald development on pears cv. Packham's Triumph. Carolina A. Torres, Francisca Mejías, Gloria Sepúlveda. CHILE.	
IV.P14	Study of the molecular determinism of superficial scald development in apple fruit. Mathieu Marc, Maryline Cournol, Anne-Sophie Poisson, Marie-Charlotte Guillou, Jean-Pierre Renou, Mickaël Delaire, Mathilde Ms. Orsel. FRANCE.	
15:00-16:30	SESSION V Sala 'A10.8'	<i>Bioactives after Harvest (Part I)</i>
	Moderator	Dr. Manuel Serradilla (SPAIN)
15:00-15:15	V. O1. Physicochemical changes in `Holland` papaya fruit treated with quarantine hot water incorporated with salicylic acid dip during cold storage. Suriyan Supapvanich. THAILAND.	
15:15-15:30	V. O2. Preservation the nutritional and physical quality of pomegranate arils by UV-C illumination, CO₂ and N₂ enrichment. Isilay Yildirim, Mustafa Erkan, Gizem Sahin Ozalp, Mehmet Seckin Kurubas. TURKEY.	
15:30-15:45	V. O3. Functionally active metabolites in two varieties of chayote [<i>Sechium edule</i> (Jacq.) Swartz]. María de Lourdes Arévalo Galarza, Jorge Cadena-Iñiguez, María de la Luz Riviello-Flores, Ramón Soto-Hernandez, Fernando Gomez-Merino, Lucero del Mar Ruiz Posadas, Itzen Aguiñiga-Sánchez. MEXICO.	
15:45-16:00	V. O4. Metabolomic screening of feijoa varieties and tissues for anti-inflammatory activity. Julian Heyes, Mary Grace, Michael Timmers, Debora Espósito, Will Allwood, Derek Stewart, Mary Ann Lila. NEW ZEALAND.	
16:00-16:15	V. O5. Melatonin: A new tool for preserving table grape quality and enhancing bioactive compounds during storage. María Emma García-Pastor, María José Giménez-Torres, Pedro Javier Zapata, Fabián Guillén, María Serrano, Daniel Valero. SPAIN.	
16:15-16:30	V. O6. Postharvest treatment with salicylic acid and chitosan improved the shelf life of sweet cherry fruit during cold storage. Mohammadreza Asghari. IRAN.	
16:30-17:00	Coffee Break	

17:00-18:30	POSTER SESSION	SESSIONS I, II, III and IV E-Poster with 5 minutes Presentation
	Moderators	Session I, Sala Retiro, Screen 1. Dr. George Manganaris (CYPRUS) Sessions II + III, Sala Retiro, Screen 2. Dr. María Serrano (SPAIN) Session IV, Sala A10.8. Screen 3. Dr. Bruno Defilippi (CHILE)
20:00	Welcome cocktail. REAL JARDIN BOTÁNICO. Calle Claudio Moyano, 1 (Esquina Alfonso XII) Metro Station: Atocha	
WEDNESDAY 18		
09:00-11:00	SESSION V (Cont.) Sala 'Retiro'	Bioactives after Harvest (Part II)
	Moderator	Dr. Julian Heyes (NEW ZEALAND)
09:00-09:30	Keynote	Dr. Yves Desjardins (CANADA). Health quality of horticultural products: Is there a place for post-harvest technologies?
9:30-09:45	V. O7. Metabolism characterizing sun exposed and shaded side peel of four apple cultivars during cold storage. David Rudell, Christine McTavish, Carolina Torres, James Mattheis. USA.	
9:45-10:00	V. O8. Differential accumulation of rishitin and stigmasterol in various tomato genotypes in response to UV-C treatment. Marie Thérèse Charles, Arul Joseph, Elian-Simplice Yaganza, Daniel Rolland, Dominique Roussel. CANADA.	
10:00-10:15	V. O9. Introducing SIFT-MS to post-harvest research, a case study on strawberries (<i>Fragaria x ananassa</i>). Maarten Hertog, Iris Vendel, Bart Nicolai. BELGIUM.	
10:15-10:30	V. O10. Effect of postharvest storage at ambient temperature on the micronutrients, phytochemicals and phenolic profile of the sclerotia of king tuber mushroom (<i>Pleurotus tuber-regium</i>). Blessing Agoreyo, Eseosa Oseghale. NIGERIA.	
10:30-10:45	V. O11. Effect of postharvest salicylic acid and chitosan treatments on total antioxidant activity and some quality attributes of 'Selva' strawberry fruit during cold storage. Mohammadreza Asghari. IRAN.	
10:45-11:00	V. O12. Changes in cell wall composition and phenolic concentration in response to ethylene and 1-MCP in harvested olives. Mina Kafkaletou, Costas Fasseas, Eleni Tsantili. GREECE.	
POSTER PRESENTATIONS (Sala Retiro, Screen 1. 17:30-19:00)		
V. P1	Revaluation of underutilized lemon fruits of the Spain South-East as a potential source of bioactive compounds and to be used in creative cuisine. María Teresa Pretel, Antonia Dolores Asencio, María Serrano. SPAIN.	
V. P2	Torn between two targets - Discoloration and lignification as competitive pathways of phenolic substances in harvested white asparagus spears (<i>Asparagus officinalis</i> L.). Werner B. Herppich, Susanne Huyskens-Keil, Karin Hassenberg. GERMANY.	

V. P3	Changes in carotenoids and quality traits during storage of 'Farbaly' apricots (<i>Prunus armeniaca</i> L.) at 1 °C in air. Eleni Tsantili, Mina Kafkaletou, Athanasia Karantzi, Miltiadis Christopoulos, Ioannis Kalantzis. GREECE.	
V. P4	Physical-chemical properties of the "Foenix" variety of jujube fruit (<i>Ziziphus jujube</i> Mill.). Francisca Hernández, Juana Reche, María Soledad Almansa, Santiago García, Pilar Legua, Asunción Amorós. SPAIN.	
V. P5	Antioxidant activity and total phenols of the "Seron1" and "Orihuela10" varieties of capers (<i>Capparis spinosa</i> L). Asunción Amorós, Mar Grimalt, María Soledad Almansa, Santiago García, Pilar Legua, Francisca Hernández. SPAIN.	
V. P6	Balancing strawberry postharvest quality: Differential temperature effects on aroma volatiles, antioxidant properties, and appearance. Flávia Fernandes, Rita Alecó, Domingos Almeida. PORTUGAL.	
V. P7	<i>Bacillus amyloliquefaciens</i> subsp. plantarum I3 and I5 growth characterization and activity against brown rot in peach. Héctor Calvo, Isabel Mendiara, J. Navarro, Domingo Blanco, Rosa Oria, M ^a Eugenia Venturini. SPAIN.	
V. P8	<i>Plinia edulis</i> - native fruit of the Brazilian Atlantic Forest - as a source of bioactive compounds, fiber, and minerals. Aline P.G. da Silva, Poliana C Spricigo, Angelo Pedro Jacomino. BRAZIL.	
09:30-10:45	SESSION VI. Sala 'A10.8'	<i>Fresh Produce Supply Chain: Innovations to Reduce Postharvest Losses (Part I)</i>
	Moderator	Dr. Mustafa Erkan (TURKEY)
9:30-09:45	VI. O1. Genotype effect on chilling sensitivity of summer squash (<i>Cucurbita pepo</i> L.), its possible biochemical basis and early detection. Victor Rodov, Harry Paris, Yakov Vinokur, Mitiku Mihiret, Felix Mensah, Anton Fennec, Batya Horev, Elazar Fallik, Haya Friedman. ISRAEL.	
9:45-10:00	VI. O2. Novel developments in post-harvest physiology and fresh chains. Suzan Gabriels, Bastiaan Brouwer, Ernst Woltering, Eelke Westra. NETHERLANDS.	
10:00-10:15	VI. O3. A genetic approach to improving postharvest quality in lettuce. James Monaghan, Paul Hunter, David Pink, Paul Hand, Jenny Heath, Guy Barker, Angela Hambidge, Stella Lignou, Maria Jose Oruna-Concha, Bindukala Radha, Carol Wagstaff. UNITED KINGDOM.	
10:15-10:30	VI. O4. Ammonia accumulation is a useful indicator of the postharvest quality of spinach and kale. Marita I. Cantwell, Karin Albornoz, Gyunghoon Hong. USA.	
10:30-10:45	VI. O5. Effect of the application of Triclopyr during degreening and cold storage of harvested citrus fruit. Ernesto Conesa Roca. SPAIN	
11:00-11:30	Coffee Break	
11:30-13:30	SESSION VII. Sala 'Retiro'	<i>Postharvest and Plant Microbiota: From Safety to Biocontrol (Part I)</i>
	Moderator	Dr. James Monaghan (UK)
11:30-12:00	Keynote	Dr. Trevor Suslow (USA). Recent Advances in Microbiome; Safety and Decay Aspects.
12:00-12:15	VII. O1. Effect of MeJA and MeSA vapours exposure on the anthracnose disease and quality of cold stored 'Hass' avocados. Marcin Glowacz, Dharini Sivakumar. UNITED KINGDOM.	

12:15-12:30	VII. O2. GRAS salts as alternative low-toxicity chemicals for the control of postharvest diseases of fresh horticultural products. Lluís Palou, María B. Pérez-Gago. SPAIN.	
12:30-12:45	VII. O3. Effectiveness of air-blasting for pest removal from kiwifruit. Allan Woolf, Natalie Page-Weir, Richard Oliver, Amanda Hawthorne, Asha Chhagan, Dominic Hartnett, Ringo Jinquan Feng, Agam Nangul, Cathy McKenna, Shirley Dobson, Kate Stannard, Christina Rowe, Aleise Puketapu, Nicola Mauchline, Michael Wood, Lisa Jamieson. NEW ZEALAND.	
12:45-13:00	VII. O4. Phyllosphere microbial communities of leafy vegetables affected by disinfection of irrigation water. Ana Allende, María I. Gil, Sergio Torrente-Verdeja, Pilar Truchado. SPAIN	
13:00-13:15	VII. O5. Transcriptomes collide: Simultaneous expression analysis of apple (<i>Malus × domestica</i> Borkh.) infected with <i>Botrytis cinerea</i> in a postharvest setting. Matthias Naets, Barbara De Coninck, Bram Van de Poel, Wannes Keulemans, Annemie Geeraerd. BELGIUM.	
13:15-13:30	VII. O6. Effects of postharvest application of Citrocide® PLUS, a peracetic acid based formulation, on tomato decay control. Martin Carlos Mottura, Raul Perello Torrens, Benito Orihuel-Iranzo. SPAIN.	
13:30-14:30	Lunch	
14:30-17:00	SESSION VI. (Cont.) Sala 'Retiro'	Fresh Produce Supply Chain: Innovations to Reduce Postharvest Losses (Part II)
	Moderator	Dr. Fabián Guillén (SPAIN)
14:30-15:00	Keynote	Dr. John Golding (AUSTRALIA). Fresh produce supply chain: Innovations to reduce postharvest losses.
15:00-15:30	Keynote	Dr. Leon Terry (UK). Using ethylene supplementation to minimize waste
15:30-15:45	VI. O6. Post-harvest losses of vegetables in fruit markets: a case study in the semi-arid region of Bahia, Brazil. Carlinne Oliveira, Ozenice Santos, Marília Pinto, Ely de Fátima Amaral, Valtânia Nunes. BRAZIL.	
15:45-16:00	VI. O7. Filling the gaps in postharvest management of vegetables: storage temperature recommendations. Gordon Rogers, Jenny Ekman, Adam Goldwater, Emma Winley. AUSTRALIA.	
16:00-16:15	VI. O8. CFD modeling of packaging and firmness change of mango fruits during forced evaporative cooling. Mekdim Asefa Kerisima, Willem Gruyters, Seppe Rogge, Simon Vanmaercke, Herman Ramon, Berhanu Assefa Demessie, Shimelis A. Emire, Pieter Verboven, Bart Nicolai. BELGIUM.	
16:15-16:30	VI. O9. Gum arabic coating enriched with GABA attenuates oxidative rancidity of walnut kernels. Asghar Ebrahimzadeh, Farhad Pirzad, Hamidreza Tahanian, Morteza Soleimani Aghdam. IRAN.	
16:30-16:45	VI. O10. Effects of processing steps and processor operation. Maria Luisa Amodio, Giancarlo Colelli, Francisca A. Ansah, Willis Fedio, Francisco O. Holguin. ITALY.	
16:45-17:00	VI. O11. Edible surface coatings extend the postharvest life and quality of cassava roots. Willis Owino, Loreto Oduor, Jane Ambuko, Elijah Ateka. KENYA.	
POSTER PRESENTATIONS (Sala Retiro, Screen 2. 17:30-19:15)		

VI.P1	Survival of cut cabbage subjected to subzero temperatures. Shoji Koide, Riko Kumada, Kasumi Hayakawa, Itsuki Kawakami, Takahiro Orikasa, Mitsuhiko Katahira, Matsuo Uemura. JAPAN.
VI.P2	The application of UV-C irradiation followed by storage in continuous low level ethylene atmosphere to delay the ripening of mature green tomatoes. Penta Pristijono, Michael Bowyer, Christopher Scarlett, Quan Vuong, Costas Stathopoulos, John Golding. AUSTRALIA.
VI.P3	Enhanced storage technique of jujube (Ziziphus jujube Mill.) using aqueous chlorine dioxide. Uk Lee, Sung-II Oh, Sugwang Lee, Chul-Woo Kim. KOREA.
VI.P4	Effect of Rosehip oil as coating on plum cv Royal Rosa and nectarine cv Atenea. Daniel Valero, Juan Miguel Valverde, Alejandra Martínez-Esplá, Fabián Guillén, Paula Corraliza, Carmen Marín, Domingo Martínez-Romero. SPAIN.
VI.P5	Physicochemical and sensory quality of fresh-cut 'Rojo Brillante' coated with protein and polysaccharides edibles coatings amended with antibrowning agents. María B. Pérez-Gago, Milagros Mateos, Elena Sanchis. SPAIN.
VI.P6	The influence of fruit bin stacking plans on spatiotemporal heat removal. Daniel Alexandre Neuwald, Marc Stephan Spuhler, Reiner Jedermann, Martin Geyer. GERMANY.
VI.P7	Harvest and post-harvest of mango in the irrigated perimeter of Ceraíma in Guanambi, Bahia, Brazil. Ozenice dos Santos, Carlinne Oliveira, Marília Pinto, Gabriela Xavier, Juceliandy Pinheiro, Josenice dos Santos. BRAZIL.
VI.P8	Does of long-term submergence in sugar syrup and orange juice affect physiology and storage quality of fresh-cut apple slices for fruit salads? Werner B. Herppich, Guido Rux, Antje Fröhling, Pramod Mahajan, Oluwafemi J. Caleb. GERMANY.
VI.P9	Temperature changes during transportation to the market affect the internal quality of persimmon fruit. Cristina Besada, Rebeca Gil, Ayoub Fathi Najafabadi, Pilar Navarro, Alejandra Salvador. SPAIN.
VI.P10	Testing and evaluation of banana (kluyab muenang) wholesale packaging in Chumphon Province, Thailand under transport simulation. Nuttapon Ruttanadech, Angkana Saewanarak, Naruebodee Srisang, Thatchapol Chungcharoen. THAILAND.
VI.P11	Effect of chitosan-coating treatment on cherry quality during postharvest life. Sofia Correia, Sara Bernardo, Lucía López Hortas, Alfredo Aires, Filipa Queirós, Carlos Ribeiro, Rob Schouten, Ana Paula Silva, Berta Gonçalves. PORTUGAL.
VI.P12	High hydrostatic pressure processing of fresh produce - Evaluation of gentle treatment parameters using the cell pressure probe. Werner B. Herppich, Guido Rux, Oliver Schlüter. GERMANY.
VI.P13	Comparative evaluation of two mangoes varieties for fresh cut. Marcos Fonseca, Luana da Guia, Eduardo Walter, Daniela Freitas. BRAZIL.
VI.P14	Shelf life of macadamia kernels of different origin. Shahla Hosseini Bai, Stephen J. Trueman, Tsvakai Gama, Kim Jones, David A. Walton, Bruce Randall, Helen Wallace. AUSTRALIA.
VI.P15	Active packaging to improve the shelf-life and nutritional quality of strawberries. Giovanna Giacalone, Valentina Chiabrandò. ITALY.

15:30-16:45	SESSION VII. Sala 'A10.8'	Postharvest and Plant Microbiota: From Safety to Biocontrol (Part II)
	Moderator	Dr. Lluís Palou
15:30-15:45	VII. O7. The use of ozonated water during pre-cooling on the postharvest fruit quality and storage performance of '0900 ziraat' cherries. Adem Dogan, Yasin Topcu, Nurten Selcuk, Mursel Catal, Mehmet Seckin Kurubas, Mustafa Erkan. TURKEY.	
15:45-16:00	VII. O8. Role of lipopeptides produced by <i>Bacillus amyloliquefaciens</i> BUZ-14 against <i>Botrytis cinerea</i> and <i>Monilinia</i> species. Isabel Mendiara, Héctor Calvo, Domingo Blanco, Rosa Oriá, M ^a Eugenia Venturini. SPAIN.	
16:00-16:15	VII. O9. Chemical and physical disinfection of fresh-cut lettuce (cv. Vera) packaged in passive modified atmosphere. Magdalena Irazoqui, Sofía Barrios, Patricia Lema. URUGUAY.	
16:15-16:30	VII. O10. The coolbot' technology: opportunities and challenges for smallholder horticultural farmers in Africa. Jane Ambuko Lukhachi, Esther Karithi, Margaret Hutchinson, Willis Owino. KENYA.	
16:30-16:45	VII. O11. Application of passive refrigeration and gaseous ozone to reduce postharvest losses on red chicory. Loris Pinto, Thaer Yaseen, Leonardo Caputo, Cristiana Furiani, Cristian Carboni, Federico Baruzzi. ITALY.	
POSTER PRESENTATIONS (Sala A10.8, Screen 3. 17:30-19:15)		
VII.P1	Attempting to decrease postharvest losses in tomatoes. Suzane Pols, Elton Williams, Anél Botes, Filicity Vries. SOUTH AFRICA.	
VII.P2	Correlation between the infestation index of <i>Anastrepha</i> spp. (Diptera: Tephritidae) and the physico-chemical properties of guava fruits. Juliana Altafin Galli, Maria Cecília Arruda Palharini, Elisangela Jeronimo Torres, Marcos Doniseti Michelotto, Ivan Herman Fischer, Rosemary Marques de A. Bertani, Antonio Lucio Mello Martins. BRAZIL.	
VII.P3	Preventive and curative activity of pomegranate peel extracts to control green mold on clementine mandarins cv. Clemenules. Verónica Taberner, María B. Pérez-Gago, M. Carmen González-Mas, Lluís Palou. SPAIN.	
VII.P4	Postharvest UV-C treatment reduces postharvest decay in sweet cherries stored at 20°C. Penta Pristijono, Michael Bowyer, Christopher Scarlett, Quan Vuong, Costas Stathopoulos, Loïc Vuilleminot, John Golding. AUSTRALIA.	
VII.P5	In-vitro effect of thymol, cavacrol and linalool oils encapsulated against <i>Geotrichum citri-aurantii</i>. Vicente Serna, María Serrano, Daniel Valero, María José Jiménez, María Emma García-Pastor, MI Rodríguez-López, MT Mercader-Ros, Pedro Javier Zapata, José Antonio Gabaldón, Domingo Martínez-Romero. SPAIN.	
VII.P6	Interrelation between enzymatic browning and bacterial growth on fresh-cut apples and lettuce. Hidemi Izumi, Ayano Inoue. JAPAN.	
VII.P7	Postharvest ozone treatment on strawberries. Séverine Gabioud Rebeaud, Luyen Vuong, Véronique Varone, André Ançay, Pierre-Yves Cotter, Danilo Christen. SWITZERLAND.	
VII.P8	Postharvest management of peach and apple diseases. Paolo Bertolini, Elena Baraldi, David Mazzoni, Marta Mari. ITALY.	

VII.P9	Effect of green tea incorporated edible coating spray on the quality of fresh strawberries. W.A.J.P. Wijesinghe, N.A.I. Jayamali, P.A.P.M.D. Silva. SRI LANKA.	
VII.P10	Quality and shelf life of arugula baby leaves as affected by spectral composition from LED light during cultivation. Julian Verdonk, Dorthe Larsen, Ernst Woltering, Céline Nicole, Jarno Mooren, Rob Schouten. NETHERLANDS.	
VII.P11	Control of postharvest table grape sour rot development during shelf-life after cold ozonation treatment. Loris Pinto, Leonardo Caputo, Laura Quintieri, Silvia de Candia, Thaer Yaseen, Federico Baruzzi. ITALY.	
VII.P12	Growth, lipopeptide production and biocontrol efficacy against <i>Botrytis cinerea</i> and <i>Monilinia fructicola</i> of <i>Bacillus amyloliquefaciens</i> BUZ-14 cultured in low cost media. Hector Calvo, Isabel Mendiara, Jose Javier Romero, Domingo Blanco, Rosa Oria, María Eugenia Venturini. SPAIN.	
VII.P13	Monitoring the disinfection of process wash water in commercial fresh-cut operating conditions. Francisco López-Gálvez, Juan A. Tudela, Macarena Moreno, Natalia Hernández, María I. Gil, Ana Allende. SPAIN.	
VII.P14	Chemical composition of four Tunisian oranges essential oils and their effect on grapes postharvest pathogens <i>Aspergillus carbonarius</i> and <i>Botrytis cinerea</i>. Imen Farhat, Hassene Zemni, Samir Chebil, Majdi Hammami, Ahmed Mliki, Moufida Saidani Tounsi. TUNISIA.	
VII.P15	What spoils Swedish apples during storage? Ibrahim Tahir. SWEDEN.	
VII.P16	Disinfection by-products in commercial processing lines of fresh-cut industry. Alicia Marín, Yolanda Garrido, Silvia Andújar, Juan A. Tudela, Ana Allende, María I. Gil. SPAIN.	
VII.P17	Study of microbiological quality of new sweet cherry cultivars obtained from the sweet cherry breeding program in Extremadura. María Carmen Villalobos, Manuel Serradilla, Santiago Ruiz-Moyano, Alejandro Hernández, María José Benito, Margarita López, María de Guía Córdoba. SPAIN.	
VII.P18	Effects of different sprouting, decontamination and storage conditions on the microbiological quality and on the metabolite profile of mung bean sprouts. Christoph Weinert, Ruth Binder, Biserka Becker, Björn Egert, Bernhard Trierweiler, Sabine Kulling. GERMANY.	
VII.P19	Plant microbiota associated with agricultural habitats: soil and irrigation water. Pilar Truchado, Maria I. Gil, Ana Allende. SPAIN.	
VII.P20	Understanding the antagonistic mechanisms triggered by the biological control agent <i>Aureobasidium pullulans</i> in `Rochaž pears against postharvest blue mold decay. Maria M Cristóvão, Alexandra Nunes, Mário Santos, Paula Vasilenko, Maria M Ferreira-Pinto, Manuel Coimbra, Luis Goulao. PORTUGAL.	
17:00-17:15	Coffee Break	
17:15-17:30	ISHS BUSINESS MEETING. To decide the venue and time for the next Postharvest Unlimited Conference and the possible merger with Chains Unlimited.	
17:30-19:15	POSTER SESSION	SESSIONS V, VI and VII E-Poster with 5 minutes Presentation
	Moderator	Session V Sala A10.8, Screen 3. Dr. Ana Allende (SPAIN) Session VI Sala Retiro, Screen 1. Dr. Amnon Lichter (ISRAEL)

		Session VII, Sala Retiro, Screen 2. Dr. Hidemi Izumi (JAPAN)
21:00-00:00	Gala Dinner. HOTEL MELIÁ CASTILLA. Calle del Poeta Joan Maragall, 43. Metro Station: Cuzco	
THURSDAY 19		
9:00-10:45	SESSION VIII. Sala 'Retiro'	<i>Pre-harvest Conditions, Harvest Maturity and Postharvest Performance (Part I)</i>
	Moderator	Dr. Marita Cantwell (USA)
9:00-9:30	Keynote	Dr. Peter Toivonen (CANADA). Relation between pre-harvest conditions, harvest maturity and postharvest performance
9:30-09:45	VIII. O1. Preharvest treatments with salicylates enhance antioxidant systems in plums. María Serrano, Alejandra Martínez-Esplá, Pedro J. Zapata, Domingo Martínez-Romero, Juan M. Valverde, Salvador Castillo. SPAIN.	
9:45-10:00	VIII. O2. Growth regulators influence on spinach (<i>Spinacia oleracea</i> L.) quality pre-harvest and harvest maturity. Rasa Karkleliene, Danguole Juskeviciene, Audrius Radzevicius, Eugenijus Dambrauskas, Nijole Marockiene. LITHUANIA.	
10:00-10:15	VIII. O3. Pepino (<i>Solanum muricatum</i> Aiton) fruit-produced C5, C6 and C9 LOX aroma compounds during development are differentially synthesized in the flesh and peel. Carolina Contreras, Wilfried Schwab, Mechthild Mayershofer, Mauricio Gonzalez-Aguero, Bruno Defilippi. CHILE.	
10:15-10:30	VIII. O4. Effect of preharvest treatment with salicylic acid on postharvest quality of 'Magenta' table grapes. Fabián Guillén, M ^a Emma García-Pastor, Pedro J. Zapata, M. Serrano, Salvador Castillo, M ^a José Giménez, Juan M. Valverde. SPAIN.	
10:30-10:45	VIII. O5. Effects of LED lighting on post-harvest quality and shelf life of leafy green vegetables grown in a vertical farm. Celine C.S. Nicole, Jarno Mooren, Ana T. Pereira Terra, Dorthe H. Larsen, Ernst J. Woltering, Leo F. Marcelis, Joris Huskens, Freddy Troost. NETHERLANDS.	
9:30-11:00	SESSION IX. Sala 'A10.8'	<i>Postharvest Technologies: CA Storage, MA Packaging and Ethylene Management (Part I)</i>
	Moderator	Dr. Giancarlo Colelli (ITALY)
9:30-09:45	IX. O1. Unraveling the effects of low oxygen stress in apple fruits with the help of U-13C-pyruvate using fluxomics. Maarten Hertog, Jelena Boeckx, Annemie Geeraerd, Bart Nicolai. BELGIUM.	
9:45-10:00	IX. O2. Activation of the glycolytic and phenyl propanoid pathways upon anaerobic and low temperature storage of table grapes. Itay Maoz, Tatiana Kaplunov, Noa Sela, Mirko De Rosso, Antonio Dalla Vedova, Riccardo Flamini, Efraim Lewinsohn, Amnon Lichter. ISRAEL.	
10:00-10:15	IX. O3. Shelf life of sweet cherries in different packages after 0 and 3 weeks of CA-storage. Hanne Larsen, Jorunn Borve. NORWAY.	
10:15-10:30	IX. O4. Ethylene removal using photocatalysis and VUV (vacuum ultraviolet light) photolysis method: A comparison. Pramod Mahajan, Namrata Pathak, Oluwafemi Caleb, Cornelia Rauh. GERMANY.	
10:30-10:45	IX. O5. Extended storage of summer cabbage. David Kenigsbuch, Daniel Chalupovics, Dalia Maorer, Yosef Osher, Elazar Fallik, Susan Lurie. ISRAEL.	

10:45-11:00	IX. O6. Low oxygen treatment prior to cold storage to maintain the quality of peaches. Jesús Val, Diego Redondo, Azahara Díaz. SPAIN.	
11:00-11:30	Coffee Break	
11:30-13:30	SESSION IX. (Cont) Sala 'Retiro'	Postharvest Technologies: CA Storage, MA Packaging and Ethylene Management (Part II)
	Moderator	Dr. Allan Woolf (NEW ZEALAND)
11:30-12:00	Keynote	Dr. Randy Beaudry (USA). Postharvest Technologies: CA Storage, MA Packaging and Ethylene Management.
12:00-12:15	IX. O7. How does low oxygen storage influence blueberry quality? Brian Farneti, Juliia Khomenko , Matteo Ajelli , Marcella Grisenti, Juan Pablo Bonnet, Paula Poncetta , Francesco Emanuelli, Franco Biasioli , Lara Giongo. ITALY.	
12:15-12:30	IX. O8. Ethylene synthesis and superficial scald prevention affected by low oxygen concentration and initial ultra low oxygen stress in 'Yali' pear. Wang Wenhui, Yanmin Du, Xiaohui Jia. CHINA.	
12:30-12:45	IX. O9. Response of air-stored Honeycrisp apple on fruit quality to 1-MCP repeated application. Diep Tran, Randolph Beaudry. USA.	
12:45-13:00	IX. O10. New recommendations for controlled atmosphere storage of 'Rocha' pear. Domingos Almeida. PORTUGAL.	
13:00-13:15	IX. O11. Using the respiratory response to monitor the quality of apple fruit during low oxygen storage. Deborah Rees, Richard Colgan, Karen Thurston, David Bishop, Andrew Duff. UNITED KINGDOM.	
13:15-13:30	IX. O12. Innovative evaporatively-cooled/solar-refrigerated structures for storage of perishables in arid and semiarid environments. Randolph M. Beaudry, Sangeeta Chopra, Norbert Mueller. USA.	
	POSTER PRESENTATIONS (Sala A10.8, Screen 3. 17:15-19:15)	
IX.P1	Development of novel postharvest techniques for preserving blueberry fruit. Suzane Pols, Anél Botes, Filicity Vries. SOUTH AFRICA.	
IX.P2	Multivariate analysis of guava fruits stored under different temperatures and modified atmosphere. Juliana Altafin Galli, Maria Cecília Arruda Palharini, Elisangela Jeronimo Torres, Marcos Doniseti Michelotto, Ivan Herman Fischer, Rosemary Marques de A. Bertani, Antonio Lucio Mello Martins. BRAZIL.	
IX.P3	Influence of the MAP technology on the aroma composition of cherries during shelf life period. Rosa Oria, María Eugenia Venturini, Eva Campo, David Gimeno, Ana Pilar Gracia. SPAIN.	
IX.P4	Postharvest conservation of Pereskia aculeata leaves under different packages. Marcos Fonseca, Regina Coneglian, Bruna Pereira. BRAZIL.	
IX.P5	Understanding the differential response of Braeburn and Gala apples to low oxygen storage; A study of tissue types by microscopy. Rosalind Fisher, Richard Colgan, Chris Atkinson, Deborah Rees. UNITED KINGDOM.	
IX.P6	Hypobaric storage of fresh tropical fruit. Suzanne Sanxter, Marisa Wall, Sandra Silva, Peter Follett. USA.	
IX.P7	Discoloration and ripening behaviour of banana fruit (<i>Musa x paradisiaca</i>) as affected by high CO₂. Werner B. Herppich, Anja-Magret Mink, Guido Rux, Thanos Papageorgiou, Susanne Huyskens-Keil. GERMANY.	

IX.P8	New treatment to remove persimmon astringency during cold storage. Ayoub Fathi Najafabadi, Daniel Tormo, Ernesto Conesa, Rebeca Gil, Cristina Besada, Alejandra Salvador. SPAIN.
IX.P9	Effect of <i>Aloe vera</i> coatings incorporated with <i>Cinnamomum zeylanicum</i> and rosehip essential oils on postharvest physiology and microbial quality of pomegranate arils during cold storage. Jagmeet Singh. INDIA.
IX.P10	Postharvest behaviour and quality changes of green pods of cowpea (<i>Vigna unguiculata</i> ssp. <i>unguiculata</i>) in relation to storage temperature and plastic packaging. Ioannis Karapanos. GREECE.
IX.P11	Low oxygen treatment prior to cold storage to maintain the quality of apples at industrial scale. Jesús Val, Azahara Díaz, Marta Pérez, Diego Redondo. SPAIN.
IX.P12	Influence of modified atmosphere packaging (MAP) on aroma quality of fig cultivar 'Cuello Dama Blanco' (<i>Ficus carica</i> L.). María Carmen Villalobos, Manuel Joaquín Serradilla, Emilio Aranda, Margarita López-Corrales, María de Guía Córdoba, Santiago Ruiz-Moyano, Alberto Martín. SPAIN.
IX.P13	Rocha pear response to extremely low oxygen partial pressure. Domingos Almeida, Adriano Saquet. PORTUGAL.
IX.P14	Short-term high CO₂ treatment for the des-astringency of fresh dates for exportation. Huertas M. Díaz-Mula, Juan A. Tudela, Natalia Hernández, María I. Gil. SPAIN.
IX.P15	Effect of storage temperature on quality characteristics and shelf life of broccoli florets packaged in modified atmosphere. Erika Paulsen, Sofía Barrios, Diego A. Moreno, Horacio Heinzen, Patricia Lema. URUGUAY.
IX.P16	Evolution of sugar composition of three fig cultivars (<i>Ficus carica</i> L.) stored in passive modified atmosphere. María Carmen Villalobos, Alberto Martín, Manuel Joaquín Serradilla, Margarita López-Corrales, Cristina Pereira, María de Guía Córdoba. SPAIN.
IX.P17	Impact of storage technologies on length of storage period and fruit quality of sweet cherry. Martin Jonás, Palo Suran, Lubor Zeleny, Adela Skrivanova. CZECH REPUBLIC.
IX.P18	Use of nondestructive maturity index and ULO-conditions to improve storage potential of 'Clara Frijs' pear. Ibrahim Tahir, Eivind Vangdal. SWEDEN.
IX.P19	Changes on physicochemical properties of Lulo fruit (<i>Solanum quitoense</i> Lam.) stored up to 30 days using different storage technologies. Gemma Echeverría Coartada, Jordi Giné Bordonaba, Christian Larrigaudière, María Luisa López. SPAIN.
IX.P20	Controlled atmosphere pallets to extend the shelf-life of Calanda peaches. María Eugenia Venturini, Ana Pilar Gracia, Rosa Oria, B. Lasierra, David Gimeno. SPAIN.
IX.P21	Effects of modified atmosphere package and 1-MCP treatment on the DPPH (1,1-diphenyl-2-picrylhydrazyl) radical scavenging activity of okra (<i>Abelmoschus esculentus</i>) during storage. Jeng-Jung Shyr, Wei-Tzuo Hong. CHINESE TAIPEI.
IX.P22	Sucrose-derived trisaccharides and galactinol in high CO₂ stressed strawberries. María Blanch Rojo, Maite Sánchez-Ballesta, María Isabel Escribano, Carmen Merodio. SPAIN.

IX.P23	The use of different controlled atmosphere and 1-methylcyclopropene combinations in pear storage. Tuba Secmen, Atakan Guneyli, Cemile Ebru Onursal, Mehmet Ali Koyuncu, Derya Erbas, Seda Sevinc Uzumcu. TURKEY.	
IX.P24	Combined application of ethylene and 1-MCP modulates the ripening of 'Golden' papaya fruit. Rafaela V. Façanha, Poliana C. Spricigo, Angelo Pedro Jacomino. BRAZIL.	
12:00-13:00	SESSION VIII. Sala 'A10.8	<i>Pre-harvest Conditions, Harvest Maturity and Postharvest Performance (Part II)</i>
	Moderator	Dr. Pedro J. Zapata (SPAIN)
12:00-12:15	VIII. O6. Preharvest, but not postharvest water stress conditions regulate tomato fruit cuticle metabolism and affect fruit firmness. Paco Romero, Jocelyn KC Rose. SPAIN.	
12:15-12:30	VIII. O7. Effect of calcium and magnesium in texture of table grape berries cv Thompson Seedless grown at in vitro system. Joaquín Delgado-Rioseco, Tamara Peredo, Francisca Cabello-Vásquez, Patricio Olmedo, Troy Ejsmentewicz, Ivan Balic, Claudio Meneses, Romina Pedreschi, Bruno Defilippi, Reinaldo Campos-Vargas. CHILE.	
12:30-12:45	VIII. O8. Bio-stimulators influence to the maturity and productivity of garlic (<i>Allium sativum</i> L.). Danguole Juskeviciene, Rasa Karkleliene, Audrius Radzevicius, Eugenijus Dambrauskas, Nijole Marockiene. LITHUANIA.	
12:45-13:00	VIII. O9. Preharvest treatments with oxalic acid on quality of the early-season table grape cultivar 'Magenta'. M ^a Emma García-Pastor, María Serrano, Salvador Castillo, Fabián Guillén, Alejandra Martínez-Esplá, Pedro J. Zapata. SPAIN.	
POSTER PRESENTATIONS (Sala Retiro, Screen 1. 17:15-19:15)		
VIII. P1	Effects of preharvest salicylic acid or oxalic acid on quality and internal browning of 'Queen' pineapple fruit harvested at different month. Pannipa Youryon, Nattaphon Chimphakdee, Suriyan Supapvanich. THAILAND.	
VIII. P2	Physiological, physico-chemical, polar metabolite analysis and sensory evaluation of soilless culture tomato fruit associated with increased electrical conductivity in nutrient solution management. Juan E. Álvaro, Fernanda Rodríguez, Claudia Fuentealba, Romina Pedreschi. CHILE.	
VIII. P3	Effect of different iron compounds applied to leaves on growth of strawberry. Fátima Martínez Ruiz, Pedro Palencia, J.C. Pinto, Florinda Gama, Amarili de Varennes, Pedro J. Correia, Maribela Pestana. SPAIN.	
VIII. P4	Effects of the pre-harvest application of methyl salicylate, oxalic acid and methyl jasmonate on sweet cherry 'Sweet Heart' in production and on quality. María José Giménez, Alejandra Martínez-Esplá, Salvador Castillo-Gironés, Juan Miguel Valverde, Domingo Martínez-Romero, Salvador Castillo. SPAIN.	
VIII. P5	Effects of Se-enrichment on plant growth and fruit quality of strawberry. Fátima Martínez Ruiz, Pedro Palencia, Marian Burducea, Daniel Sánchez-Rodas, Inmaculada Giralde. SPAIN.	
VIII. P6	Optimization of produce quality and storage conditions to reduce loss during long-term storage of root vegetables in Norway (OPTIROOT, 2016-2019). Thomsen, M.G., Indergaard, E., Asalf, B., Heltoft, P., Wold, A.B., Nordskog, B., Guren, G, Dyste, J. & Larsen, H. NORWAY.	

VIII. P7	Physiological changes in lemon fruit induced by preharvest treatments with methyl jasmonate. María Serrano, Vicente Serna, Pedro Javier Zapata, Juan Miguel Valverde, Daniel Valero. SPAIN.	
VIII. P8	Effect of the rootstock on the postharvest quality of the 'Lane Late' oranges. Julia Morales Alfaro, Pilar Navarro, Cristina Besada, María Ángeles Forner-Giner, Alejandra Salvador, Almudena Bermejo. SPAIN.	
VIII. P9	Effects of oxifertirrigation on plant growth and fruit quality of strawberry. Pedro Palencia, Fátima Martínez, Danilo Paula, José Alberto Oliveira. SPAIN.	
VIII. P10	Biostimulation of bioactive compounds in radish sprouts (<i>Raphanus sativus</i> cv. Rambo) by priming seeds and spray treatments with elicitors. Nieves Baenas, Cecilia Fusari, Diego A. Moreno, Daniel Valero, Cristina García-Viguera. SPAIN.	
VIII. P11	Hand picking pepper fruits: Influence of cultivars. Juan Luis Valenzuela, M. Antonia Elorrieta, Manuel Galindo, Liliana Alfaro-Sifuentes. SPAIN.	
VIII. P12	Application of non-destructive testers, NIR spectroscopy and portable DA-meter, for the prognosis of the optimal harvest time. Jorunn Børve, Ingvill Hauso, Angela Koort, Eivind Vangdal, Jens Petter Wold. NORWAY.	
VIII. P13	Effect of maturity at harvest on postharvest quality attributes of mango fruit. Jane Ambuko Lukhachi, Jacinta Muiruri, Richard Nyankanga, Willis Owino. KENYA.	
VIII. P14	Bagging reduce interval between flowering and maturity leading to improved postharvest quality of banana. Willis Owino, Jane Ambuko Lukhachi, Dylan Agoye Burgess. KENYA.	
VIII. P15	Postharvest performance of 'Anit' tomato cultivar grown under different fertigation managements. Adem Dogan, Mustafa Erkan, Ahmet Safak Maltas, Mustafa Kaplan. TURKEY.	
VIII.P16	Effect of salt stress on two types of lettuce crop in floating root hydroponic system. Mónica Flores, Edmundo Mercado, Víctor Escalona. CHILE.	
VIII.P17	Effect of UV-B radiation on two types of lettuce crop in hydroponic system. Mónica Flores, Víctor Escalona. CHILE.	
13:30-14:30 Lunch		
14:30-16:45	SESSION X. Sala 'Retiro'	<i>Metabolomics for Quality</i>
	Moderator	Dr. Francisco A. Tomás-Barberán (SPAIN)
14:30-15:00	Keynote	Dr. Thomas Hofmann (GERMANY). Objectifying postharvest sensory quality of fruits and vegetables by means of a Sensomics approach.
15:00-15:15	X. O1. Proteomics and metabolomics approaches to understand ripening synchronization of Hass avocados under heat treatment. Romina Pedreschi, Ignacia Hernández, Claudia Fuentealba, Bruno G Defilippi, Reinaldo Campos-Vargas, Claudio Meneses, Susan Lurie, Maarten Hertog, Bart Nicolai, Sebastien Carpentier. CHILE.	
15:15-15:30	X. O2. Advanced phenomics, breeding, and postharvest: a synergism to improve fruit quality. Brian Farneti. Franco Biasioli. Fabrizio Costa, Lara Giongo. ITALY.	
15:30-15:45	X. O3. Metabolic analysis of postharvest discolouration in lettuce. Carol Wagstaff, Stella Lignou, Maria-Jose Oruna-Concha, Bindukala Radha, Paul Hunter, David Pink, Paul Hand, Jenny Heath, James Monaghan, Guy Barker, Angela Hambidge, Heather Walker, Mike Burrell. UNITED KINGDOM.	

15:45-16:00	X. O4. Smart breeding for salad rocket: A strategy for improving taste, flavour & nutrition. Luke Bell, Lisa Methven, Carol Wagstaff. UNITED KINGDOM.	
16:00-16:15	X. O5. Untargeted metabolomics to explain browning of fresh-cut lettuce. Francisco A. Tomás-Barberán, Carlos J. García, María I. Gil. SPAIN.	
16:15-16:30	X. O6. Deciphering the role of WRKY, ERF and CBF/DREBs transcription factors in the beneficial effect of 3-day high CO₂ pretreatment maintaining table grapes quality during postharvest storage at low temperature. Maite Sánchez-Ballesta, Irene Romero, María Vázquez-Hernández, Estibaliz Alegría, Alfonso González de Prádena, M ^a Isabel Escribano, Carmen Merodio. SPAIN.	
16:30-16:45	X. O7. Variability in postharvest fruit ripening within the european traditional pool of tomato varieties. Clara Pons, Joan Casals, Adriana Sacco, Jose Blanca, Joaquín Cañizares, Peio Ziarsolo, Richard Finkers, José Luis Rambla, Saleh Alseekh, Gianfranco Diretto, Josef Fisher, Dani Zamir, Giovanni Giuliano, Alisdair Fernie, María Jesús Rodrigo, Lorenzo Zacarías, Silvana Grandillo, Haya Friedman, Antonio Monforte, Antonio Granell. SPAIN.	
POSTER PRESENTATIONS (Sala Retiro, Screen 2. 17:15-19:15)		
X.P1	UPLC- QTOF-MS metabolomics and image analysis to study the effect of maturity stage on browning of fresh-cut lettuce. Carlos J. García, Yolanda Garrido, Fernando Álvarez, Francisco A. Tomás-Barberán, María I. Gil. SPAIN.	
X.P2	Metabolomics analysis and cell wall composition of table grape berries with differential firmness patterns. Baltasar Zepeda-Puiggros, Patricio Olmedo, Pablo Sepulveda, Troy Ejsmentewicz, Ivan Balic, Claudia Fuentealba, Bruno Defilippi, Claudio Meneses, Romina Pedreschi, Reinaldo Campos-Vargas. CHILE.	
16:45-17:15	Coffee Break	
17:15-19:15	POSTER SESSION	SESSIONS VIII, IX and X E-Poster with 5 minutes Presentation
	Moderators	Session VIII, Sala Retiro, Screen 1. Dr. Jesús Val (SPAIN) Session IX, Sala Retiro, Screen 2. Dr. María B. Pérez-Gago (SPAIN) Session X, Sala A10.8, Screen 3. Dr. Carmen Merodio (SPAIN)
19:15	CLOSING CEREMONY	
FRIDAY 20		
	Visit to Fruit Attraction Exhibition	