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|  | **Monday 11th November** |
| 1300 | **Pre-conference student workshop** |
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| 1630 |
|  | **Registration open** |
| 1730 | **Conference pōwhiri / welcome** |
| 1800 | **PH2024 committee welcome** |
| 1815 | **ISHS welcome** |
| 1830 | **PLENARY: Food loss and waste** |
|  | **Dame Juliet Gerrard** |
| 1900 | **Drinks and substantial nibbles** |
| 2030 |



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|  | **Tuesday 12th November** |
| 830 | **PLENARY: Postharvest challenges and the promise of genomics** |
|  | **James Giovannoni** |
|  | **Postharvest** | **Postharvest Pathology**  | **Fruit & Vegetable health** |
| 910 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 1A. Chilling injuries | 1B. Non-destructive assessment (1) | 1C. Innovative Tech (1) | 1D. Biochemistry | PP1. Postharvest technologies (1) | FVH1. Towards healthier diets |
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| 1010 | Morning Tea  |
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| 1045 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 2A. Maturity assessment  | 2B. Topics in sustainability  | 2C. Disorders | 2D. Supply chain solutions | PP2. Postharvest treatments (1) | FVH2. The influence of genetics and postharvest impacts on composition |
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| 1225 | Lunch |
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| 1330 | **Room A**  | **Room B**  | **Room C**  |  | **Room PP**  | **Room FVH**  |
|  | 3A. Physiology of ripening  | 3B. Consumers and the supply chain  | 3C. Skin disorders | PP3. Diagnostics (1) | FVH3. Understanding the health effects of plant foods (1) |
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| 1500 | Afternoon Tea |
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| 1530 | **Room A.** POSTER TALKS  | **Room B.** POSTER TALKS  | **Room C.** POSTER TALKS  | **Room D.** POSTER TALKS | **Room PP**  |  |
|  | 4A. Disorders and molecular | 4B. Cultivars. Packaging. Pests and treatments | 4C. Losses and sensors | 4D. Postharvest treatments (2) and FAVHEALTH  | PP4. Biocontrol, control and communities |
| 1640 | **Poster viewing session (with drinks and nibbles)** |
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| 1730 | **Mitai Village Experience (for those who booked)** |
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**Wednesday 13th November**

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|  | **Wednesday 13th November** |
| 830 | **PLENARY: Sustainability challenges and future opportunities for food production in a changing world** |
|  | **Brent Clothier** |
| 905 | Thanks to our Dinner sponsor – 5+Aday’  |
| 910 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 5A. Controlled atmospheres | 5B. Non-destructive assessment (2) | 5C. Applications of 1-MCP (1) | 5D. Wound healing | PP5. Integrated management | FVH5. DISCUSSION: Initiatives to promote F&V consumption |
| 955 | Morning Tea  |
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| 1030 | **Room A**  |  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 6A. Non-destructive assessment (3) | 6C. Novel coatings | 6D. Mathematical modelling postharvest | PP6. Diagnostics (2) | FVH6. Nutritional composition of crops |
| 1130 |  |  | Lunch (packed lunch) |  |  |
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| 1200 |  |  | **Boarding time: 12.00pm** |  |  |  |
|  |  |  | TOUR 3: Apata and RoboticsPlus Buses **#1 & #2** |  |  |  |
| 1230 | **Boarding time: 12.30pm** |  |  |  |  |
|  | TOUR 1: Plant and Food Research and Trevelyan’s  **Buses #3 & #4** |  |  |  |  |
| 1300 | **Boarding time: 13.00pm** | **Boarding time: 13.00pm** | **Boarding time: 13.00pm** |  |
|  | TOUR 2: SCION and Plentyflora **Bus #5** | TOUR 4: Mamaku Blue blueberry experience and A.S. Wilcox and Sons **Bus #7** | TOUR 5: Pathology (Orchard and Seeka HQ) **Buses #8 & #9** |  |
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| 1700 |  |
| 1730 |  |  |
| 1800 |  |  |  |
| 1815 |  |  |  |  |
| 1830 |  |  |  |  |  |
|  | **Tour of Hobbiton Movie Set** |
| 1900 | **Conference dinner and entertainment** |
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| 2245 | **Last bus leaves Hobbiton** |

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|  | **Thursday 14th November** |
| 900 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 7A. Physiological responses to controlled atmospheres  | 7B. Phytosanitary  | 7C. Ethylene and kiwifruit  | 7D. Gene editing | PP7. Disease cycles (1) | FVH7. Understanding the health effects of plant foods (2) |
| 1000 | Morning Tea  |
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| 1045 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 8A. Growing condition effects on postharvest | 8B. Temperature control in the supply chain  | 8C. Food Waste | 8D. Prevention of disorders | PP8. Postharvest treatments (2) | FVH8. Understanding growing systems impacts on composition |
| 1215 | Lunch |
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| 1330 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  |  |
|  | 9A. Pome fruit scalds and browning  | 9B. Preharvest treatments for postharvest | 9C. Consumer perception | 9D. Supply chain development | PP9. Pathogen genomics/plant pathogen interactions |
| 1500 | Afternoon Tea |
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| 1530 | **WORKSHOP #1** | **WORKSHOP #2** | **WORKSHOP #3** | **WORKSHOP****#4** | **WORKSHOP #5** | **WORKSHOP #6** | **WORKSHOP** **#7** | **WORKSHOP #8** |
|  | Mind the Gap!! Where scientific understanding and commercial application don’t always meet**Sponsor****Room PP** | Market access & X-ray/ionising radiation**Ben Reilly** - Steritech’s phytosanitary irradiation journey - Applying research for commercially significant outcomes**Sponsor****Room E** | Reducing fungicides - spray-free orchards**Room A** | Food and natural health product regulatory considerations**Room FVH** | Crop plants as models**Room C** | Practical use of monitoring technologies in commercial supply chains**Sponsor****Room D** | Discover sustainable packaging: a workshop at Scion**Sponsor****Off Site at Scion Bus departs at 3:15pm. Bus host: Jason Johnston** | Postharvest, food loss, and value chain challenges in the Asia-Pacific regionBranding guidelines | ACIAR**Sponsor****Room B** |
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|  | **Friday 15th November** |
| 830 | **A black background with blue text  Description automatically generatedPLENARY: Postharvest disease control - the fourth dimension and the pathobiome paradigm** |
|  | **Samir Droby** |
| 910 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 11A. Topics in food safety | 11B. Non-destructive assessment (4) | 11C. Innovative Tech (2) | 11D. Optimisation of supply chains | PP11. Disease cycles (2) | FVH11. A focus on the Pacific |
| 1010 | Morning Tea  |
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| 1045 | **Room A**  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  | **Room FVH**  |
|  | 12A. Applications of AI | 12B. WORKSHOP Food safety  | 12C. Postharvest ripening | 12D. Applications of 1-MCP (2) | ISHS Business meeting | FVH12. The value of traditional / Indigenous crops |
| 1130 | **Room PP**  | **Room FVH**  |
| 1145 | **Postharvest symposium ISHS business meeting (Room A)** | PP12. Novel technologies | FAVHEALTH ISHS Business meeting |
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| 1230 | Lunch |
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| 1315 |  | **Room B**  | **Room C**  | **Room D**  | **Room PP**  |  |
|  | 13B. Ethylene in the supply chain  | 13C. MAP packaging  | 13D. Product volatiles  | PP13. Microbiome / Gene editing  |
| 1420 | Home Isolcell - Isolcell Controlled Atmosphere since 1958**CONFERENCE CLOSING CEREMONY & student prize presentations - Sponsor-Isolcell** |
| 1440 |
| **1500** | **Coaches back to Auckland leave from conference venue – boarding at 1445** |

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|  | **Session 1 - Tuesday morning** |
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| 830 | **PLENARY: Postharvest challenges and the promise of genomics** |
| 900 | **James Giovannoni** |
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|  | **1A. Chilling injuries** | **Chair: Claudia Fuentealba** |
| 910 | Sugar metabolism as a key determinant of chilling injury development during peach cold storage and subsequent shelf-life  | Macarena Farcuh  |
| 925 | Postharvest chilling injury in ‘Lemon’ basil is accompanied by reduction in ascorbic acid content and increased browning enzyme activities  | Arlan James Rodeo  |
| 940 | Managing chilling injury of subtropical and tropical fruits  | Ringo Jinquan Feng  |
| 955 | Postharvest treatments with sodium nitroprusside and methyl salicylate synergistically enhanced chilling tolerance of tomato fruit subjected to cold storage  | Huertas Maria Diaz Mula  |
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|  | **1B. Non-destructive assessment (1)** | **Chair: Mo Li** |
| 910 | A super-continuum laser-based, near-infrared spectroscopy system for proximal sensing of internal quality of kiwifruit  | Zian Wang  |
| 925 | Acoustic estimation of total soluble solids, the performance of sigmoidal and segmented regressions  | Talon Sneddon  |
| 940 | Assessing and predicting the evolution of persimmon fruit flesh texture during cold storage using hyperspectral imaging  | Salvador Castillo Girones  |
| 955 | Assessment of harvest maturity in loquat through non-destructive prediction of soluble solid content and titratable acidity using NIR spectroscopy  | Marina Lopez-Chulia  |
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|  | **1C. Innovative Tech (1)** | **Chair: Richard Colgan** |
| 910 | Effect of gaseous ozone pre-treatment on the storability of fresh onions ‘Bianca di Margherita di Savoia- PGI’ | Danial Fatchurrahman |
| 925 | Application of cold atmospheric-pressure gaseous plasma technology in potato tubers and its effect on wound healing metabolism  | Gustavo Henrique de Teixeira  |
| 940 | Fruit Integrity after Postharvest Interaction with Robotic Grippers | Silvia Langer  |
| 955 | Multiomics analyses of the effects of LED white light on the ripening of apricot fruits  | Yanyan Zheng  |
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|  | **1D. Biochemistry** | **Chair: Beth Mitcham** |
| 910 | Pinking in lettuce, chemistry, genetics and sensory analysis highlight a complex relationship with polyphenolics  | Martin Chadwick  |
| 925 | GABA and amino acid changes in rambutan during storage  | Rujira Deewatthanawong  |
| 940 | Physicochemical and organoleptic properties of solar and freeze - dried Okra (*Abelmoschus esculentus*)  | Gloria Essilfie |
| 955 | Simple and effective: the alginate-gelatin biosensor for quick *B. subtilis* detection in foods  | Evgeni Eltzov  |
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|  | **PP1. Postharvest technologies (1)** | **Chair: Jose Henriquez** |
| 910 | Comparative efficacy of dynamic controlled atmosphere against five postharvest pathogens of pome fruit  | Achour Amiri  |
| 925 | Optimizing heat treatment and storage condition for ‘Chiin Hwang’ mango  | Chang-Lin Chen  |
| 940 | Comparing In vitro and molecular methods for detection of QoI fungicide resistance in *Colletotrichum spp.* associated with avocado in Australia  | Imsubenla Nokdy  |
| 955 | Fungicide resistance in postharvest pathogens and its management as a tool to prevent food losses  | George Karaoglanidis  |
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|  | **FVH1. Towards healthier diets** | **Chair: Carolyn Lister** |
| 910 | Participant insights from a long-term plant-based dietary intervention in Aotearoa New Zealand  | Ivy Gan |
| 930 | How much of the nutrients in sustainable healthy diets are supplied by horticultural produce? A dietary modelling perspective  | Mahya Tavan |
| 950 | Growing impact: Evaluating global investments in fruit and vegetable production for healthier diets  | Erin McGuire |
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|  | **Session 2 - Mid Tuesday Morning** |
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|  | **2A. Maturity assessment** | **Chair: Barbara Blanco-Ulate** |
| 1045 | Advances in apple maturity assessment and storage decision making: insights from multi-omics studies  | Laurie Favre  |
| 1100 | Interrelation analysis of fruit state at harvest and the storage duration on the ripe fruit quality of ‘Hass’ avocado: an example of confusing statistics  | Maryam Alavi  |
| 1115 | Optimizing export quality of red dragon fruit from Banyuwangi, Indonesia based on growth location and harvest time  | Fahrizal Yusuf Affandi  |
| 1130 | Evaluating the effects of different harvesting intervals on the postharvest quality of fresh-market blueberries  | Angelos Deltsidis  |
| 1145 | The role of age on potato phenotype as impacted by storage condition and time  | Jacob Blauer  |
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|  | **2B. Topics in sustainability**  |  **Chair: Carolina Contreras** |
| 1045 | When postharvest technologies can’t prevent waste is insect bioconversion the answer?  | Marian McKenzie  |
| 1100 | Sustainable alternatives to low temperature postharvest management – reducing supply chain energy demands through physiological manipulation  | Ewan Gage  |
| 1115 | Integrating sustainability into modelling for horticultural packaging systems  | Raquel Lozano  |
| 1130 | Sustainably cropping system for better quality in vegetables  | Mette Goul Thomsen  |
| 1145 | Innovative shelf life solutions for grapes: sustainable films from carrageenan, bacterial cellulose, and essential oils to improve the grapes longevity | Anjineyulu Kothakota |
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|  | **2C. Disorders** | **Chair: Carolina Torres** |
| 1045 | Understanding the mechanisms of calcium deficiency disorders  | Elizabeth Mitcham  |
| 1100 | Testing strategies for sprout control in different potato varieties for long-term storage  | Pia Heltoft  |
| 1115 | The functions of plant hormones and their interactions with ethylene during infection and development of *Botrytis cinerea* on cut rose flowers  | Suong Tuyet Thi Ha  |
| 1130 | Detection of internal heat damage and identification of techniques to prevent the expression of the disorder in cold-stored Laetitia plums  | Handré Viljoen  |
| 1145 | Utilising genetic extremes in susceptibility for storage disorders to advance knowledge on regulatory mechanisms  | Jason W. Johnston  |
| 1200 | Integration of transcriptomics and metabolomics to unravel exocarp blackspot disorder in avocado cv. Hass  | Romina Pedreschi  |
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|  | **2D. Supply chain solutions** | **Chair: Randy Beaudry** |
| 1045 | Factors influencing maintenance of postharvest table grape quality  | Anné Matthee  |
| 1100 | Incentive regulatory tools for expansion of Kenyan avocado exports: Agriculture and Food Authority (AFA) experience  | Jacqueline Oseko  |
| 1115 | Factors affecting adoption of technologies and practices for postharvest loss reduction: Focus on mango value chain in Kenya  | Jane Ambuko Lukhachi  |
| 1130 | Impact of technology intervention on mango postharvest handling in Vietnam | Hung Minh Le |
| 1145 | Food loss along the value chain of taro: a look at postharvest handling practices of taro in Samoa and Tonga | Christian-Yves Amato-Ali  |
| 1200 | Storage optimization of haskap berries  | Ernesto Lagarda  |
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|  | **PP2. Postharvest treatments (1)** | **Chair: Lluis Palou** |
| 1045 | KEYNOTE: Fresh produce postharvest losses and food safety: a perspective on the adoption rate of postharvest research technologies and innovations | Lise Korsten |
| 1105 | An in-field postharvest fungicide applicator in pome fruit: evaluation on disease control and food safety  | Achour Amiri  |
| 1120 | Investigation into alternative postharvest fungicides as a backup strategy against imazalil resistance  | Wilma du Plooy  |
| 1135 | Green mould control under lower chemical residue limits on citrus  | Meagan van Dyk  |
| 1150 | AC20010 – A novel fungicide for post harvest uses  | Hannah James |
| 1205 | Effect of chitosan as a basic substance on postharvest pathogens and shelf life of sour cherries  | Kata Ludman-Mihály  |
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|  | **FVH2. The influence of genetics and postharvest impacts on composition** | **Chair: Tim O'Hare** |
| 1045 | KEYNOTE: Postharvest phytochemical exploration in fruits and vegetables for health | Bhimanagouda Patil |
| 1115 | The spatial distribution and storage conditions influencing of glucosinolates metabolism in fresh-cut broccoli  | Yaqin Wang |
| 1130 | Untargeted metabolome scale genome-wide association studies reveal genetic control and biochemical insights into metabolites of apple fruit  | Jun Song |
| 1150 | Diallel analysis, heterosis and heritability of selected cowpea genotypes for grain yield and yield components  | Milcah Matjeke |
| 1205 | Stability of ascorbyl glucoside in crab apples under cold storage and heat stress | Jung Cho |
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|  | **Session 3 - Tuesday Afternoon** |
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|  | **3A. Physiology of ripening**  | **Chair: Laurie Favre** |
| 1330 | Closing the gap between fundamental and applied research in fruit biology to improve quality  | Barbara Blanco-Ulate  |
| 1345 | Auxin signaling mediated by miRNAs in banana fruit ripening | Hong Zhu  |
| 1400 | High resolution transcriptome for avocado off tree ripening  | Nigel Gapper  |
| 1415 | Metabolomic profiling and hormonal assessment of synchronized exocarp-mesocarp tissues throughout ripening stages of ‘Fuerte’ and ‘Hass’ avocado cultivars  | Romina Pedreschi  |
| 1430 | Hormone and transcriptome profiling during fruit development in apple  | Nate Hulston  |
| 1445 | Understanding the transcriptional regulation of the tomato fruit ripening-to-senescence process due to chilling  | Diane Beckles  |
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|  | **3B. Consumers and the supply chain**  | **Chair: Ann Colonna** |
| 1330 | Apple production systems versus postharvest eating quality: the influence of greenhouse gas production  | Roger Harker  |
| 1345 | Improving fresh produce export supply chain performance by establishing an independent surveyor network  | Andrew Macnish  |
| 1400 | Consumers’ perceptions of apple freshness in controlled atmosphere storage  | Christina Roigard |
| 1415 | The effect of acidity, flesh firmness and total soluble solids of ‘Forelle’ Early Market Access (FEMA) fruit, on consumer experience after storage  | Ian Crouch  |
| 1430 | Consumer-oriented postharvest improvement opportunities in the pineapple (*Ananas comosus* L.) value chain in Camarines Norte, Philippines  | Matilde Maunahan  |
| 1445 | Sensory quality of cultivar ‘Red Aroma’ in relation to harvest time and 1-MCP treatment | Ingunn Ovsthus  |
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|  | **3C. Skin disorders** | **Chair: Mo Li** |
| 1330 | Assessing kiwiberry selections for susceptibility to skin damage  | Anne White  |
| 1345 | Characteristics associated with kiwifruit skin sensitivity | Nicola Shaw  |
| 1400 | Orange peel disorder in sweet cherries is developed during preharvest and affected during postharvest by relative humidity  | Carolina Contreras  |
| 1415 | Antioxidant response of sweet cherry cultivars with contrastive surface pitting susceptibility during cold storage  | Claudia Fuentealba  |
| 1430 | Modelling shrivel development in ‘PremA96’ apples during storage  | Nicolette Niemann  |
| 1445 | The relationship between the mechanical properties of kiwifruit skin and shrivel disorder  | Josephine Longuet-Higgins  |
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|  | **PP3. Diagnostics (1)** | **Chair: Marcel Wenneker** |
| 1330 | Early signatures of *Botrytis cinerea*-strawberry fruit interaction reveal the presence of gray mold disease before symptom development  | Saskia Desiree Mesquida Pesci  |
| 1345 | Species-specific real-time PCR assays for nine colletotrichum species causing apple bitter rot in Mid-Atlantic  | Srdjan Acimovic  |
| 1400 | From seed to storage: disease management in organic beetroot production to reduce food waste  | Alessio Bernasconi  |
| 1415 | Identifying and characterizing postharvest fusarium fruit rot in *Cucurbita moschata* D. pumpkin  | Carmit Ziv  |
| 1430 | PCR primers and LAMP for detection of three postharvest apple diseases  | I.P. Shamini Pushparajah |
| 1445 | Detection of *Phlyctema vagabunda* using LAMP/CRISPR-Cas  | Rebecca Gough  |
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|  | **FVH3. Understanding the health effects of plant foods (1)** | **Chair: Michael Netzel** |
| 1330 | Identification of sarmentosin as a key bioactive from blackcurrant for inhibiting monoamine oxidase activity in humans  | Catrin Guenther |
| 1345 | An in vitro analysis of bioactive compounds and antioxidant activity in brassica microgreen radish (*Raphanus sativus*)  | Dharini Sivakumar |
| 1400 | Phenolic composition, antimicrobial activity and antioxidant capacity of Burdekin plum during maturation  | Gengning Chen |
| 1415 | The attributes of fruit for blood glucose control  | John Monro |
| 1430 | Effects of pea and meat as protein sources on risk factors for colorectal cancer in a rat model  | Suman Mishra |
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|  | **Session 4 - Tuesday afternoon** |
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|  | **4A. POSTER TALKS - Disorders and molecular** | **Chair: Nigel Gapper**  |
| 1530 | Ranking the incidence of core-flush in Braeburn apple orchards stores based on ethane and CO2 efflux  |  Richard Colgan  |
| 1535 | No soft scald in ‘Red Aroma’ apple fruit: Mission possible?  |  Theresa Weigl  |
| 1540 | Lenticel spots - primary and secondary causes  |  Jorunn Børve  |
| 1545 | Postharvest storage temperatures prior to CA storage affect susceptibility of ‘Empire’ and ‘McIntosh’ apples to carbon dioxide injury  |  Christopher Watkins  |
| 1550 | Watercore in Eden  |  Emily Follett  |
| 1555 | Oxidative pinking discolouration of leaves of different positions of lettuce head  |  Muhamad Hazwan Yahya |
| 1600 | Underlying mechanism of a postharvest deformation, blossom end-enlargement in cucumber fruits  |  Rui Li  |
| 1605 | HALF TIME STRETCH |  |
| 1610 | Sugarbeet root storage conditions and plant genetics affect sugar transporter gene expression with likely effects on postharvest sucrose losses  |  Karen Fugate  |
| 1615 | Transcriptional and enzymatic changes in carbohydrate metabolism in wounded sugarbeet taproots  |  Fernando Finger  |
| 1620 | Mechanisms involved in the induction of non-climacteric fruit ripening: insights from transcriptomic analysis of *Capsicum annuum*  |  I Chun Pan  |
| 1625 | Volatile compound dynamics and underlying transcriptomics of apple ripening before and after storage  |  Heidi Hargarten  |
| 1630 | Changes in internal structure and cell wall polysaccharides of ‘Hakuho’ fruits during ripening  |  Megumi Ishimaru  |
| 1635 | Dissection of mRNA ac4C acetylation modifications in AC and Nr fruits: insights into the regulation of fruit ripening by ethylene  |  Yanyan Zheng  |
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|  | **4B. POSTER TALKS – Cultivars, packaging, pests and treatments** | **Chair: Julian Heyes** |
| 1530 | Physicochemical and nutritional quality of new loquat cultivars  | Nariane Q. Vilhena  |
| 1535 | Stimulus-responsive QR codes: potential cost-effective options for intelligent packaging    | Kate Parker |
| 1540 | In vitro acaricidal activity of longan seed hexanoic extract against African red mite  | Jarongsak Pumnuan  |
| 1545 | Storage duration, harvest injury, and fungal pathogens promote ethanol accumulation in postharvest sugarbeet roots  | John Eide  |
| 1550 | Selenium biofortification affects postharvest in horticultural crops  | Pietro Tonutti  |
| 1555 | Effects of different packaging methods on the physiology and quality of fresh *Zanthoxylum bungeanum* during storage  | Yi Wang  |
| 1600 | Effect of storage under controlled atmospheres on quality and volatile compounds of ‘Candy Snap’ table grapes  | Mary Lu Arpaia  |
| 1605 | HALF TIME STRETCH |  |
| 1610 | Large-scale comparison of apple quality conservation of a direct CO2 and an indirect propane refrigeration system  | Felix Büchele  |
| 1615 | Effect of fertilizer management on fruit preservation in strawberry  | Hiroki Umeda  |
| 1620 | Novel active pectin edible coating with deep eutectic solvent plasticizer and essential oil to extend the quality of banana  | Rungsinee Sothornvit  |
| 1625 | Effect of detergents and coatings on skin greasiness in WA 38 apples  | Rene Mogollon  |
| 1630 | Biochemical and sensory attributes of jujube juice and syrup  | Muhammad Amin  |
| 1635 | Advancements in post-harvest preservation techniques and equipment for leafy green vegetables | Yingtong Zhang |
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|  | **4C. POSTER TALKS - Losses and sensors** | **Chair: Fran Doerflinger** |
| 1530 | Postharvest losses of apple fruit stored in commercial conditions in Estonia, Finland and Norway  | Ulvi Moor  |
| 1535 | Harvest maturity optimization for Jin-Huang mango with ethylene sensitivity in ripening attributes  | Lan-Yen Chang  |
| 1540 | Local in-transit handling of ‘Jewel’ tomato from Maragusan, Davao del Norte to Baybay City, Leyte in the Philippines  | Emma Ruth Bayogan  |
| 1545 | An assessment of post-Covid horticultural food loss in Samoa, Fiji, Tonga and Solomon Islands  | Seeseei Molimau-Samasoni  |
| 1550 | Evaluating the quality of fresh malaysian pineapples during the first export trial to Germany | Joanne Cho Lee YIng |
| 1555 | Local handling of tree-bagged, hot water- and prochloraz-treated ‘Carabao’ mango from Davao to Manila, Philippines  | Emma Ruth Bayogan  |
| 1600 | Hyperspectral imaging for estimating substances related to enzymatic browning of strawberry fruits  | Yuya Mochizuki  |
| 1605 | HALF TIME STRETCH |  |
| 1610 | Development of automatic sorting system for taro using image processing  | Noriko Takahashi  |
| 1615 | Linear regression analysis approach to predict fruit quality attributes and metabolic variables for fruit maturity in two strawberry cultivars  | Jinwook Lee  |
| 1620 | Non-destructive optical method to detect zucchini fruit held at chilling temperatures by using VIS-NIR and NIR hyperspectral imaging and supervised classification algorithms  | Danial Fatchurrahman |
| 1625 | Retention of postharvest okra (*Abelmoschus esculentus* L.) freshness by focusing on stem end length during preparation  | Lime Sato  |
| 1630 | Novel Biosensor for precision horticulture: real-time monitoring of plant sap’s ionic content | Dalila Pasquini |
| 1635 | 3D cloud point monitoring of purple carrots and golden kiwis during drying process | Muhammad Tayyab |
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|  | **4D. POSTER TALKS - Postharvest treatments (2) and FAVHEALTH** | **Chair: Sebastian Rivera** |
| 1530 | Postharvest treatments and sensory properties of apple cultivars ‘Rubinstep’ and ‘Red Elstar’ | Ingunn Ovsthus  |
| 1535 | Improving quality and shelf life of fresh tomato fruits with post-harvest exogenous melatonin application  | Yasmine Godonou  |
| 1540 | Effect of melatonin combined with calcium chloride on the quality of fresh-cut ripe mango during storage  | Somsak Kramchote  |
| 1545 | 1-MCP delays the ripening of ‘Lamb Hass’ avocado after cold storage  | Alejandra Salvador Perez  |
| 1550 | Physiochemical and sensory quality of ‘Rubinstep’ of different maturities | Ingunn Ovsthus  |
| 1555 | Effect of preharvest calcium treatments on ‘Rojo Brillante’ persimmon quality  | Ana Pilar Moreno  |
| 1600 | Characterisation of *Opuntia ficus-indica* mucilage-based films incorporated with encapsulated beetroot waste extract powder for potential postharvest preservation  | Tshamisane Mkhari  |
| 1605 | HALF TIME STRETCH |  |
| 1610 | Broccolomics: Influence of postharvest temperature and irradiation on the vitamin C metabolism in broccoli flower buds  | Sidsel Fiskaa Hagen  |
| 1615 | Natural and modified zeolites as ethylene scavengers during postharvest life of perishable horticultural produce | Camilla Cinelli |
| 1620 | Molecular mapping of the FA7.0 locus responsible for high-content of folate in cauliflower | Yunhua Ding  |
| 1625 | Variation in yield, total chlorophyll, carotenoids and mineral content of field grown kale (*Brassica oleracea* Acephala group) varieties | Priit Põldma  |
| 1630 | Vitamin B9 content in strawberry genotypes and accessions from different european countries: the Breeding Value project | Luca Mazzoni  |
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|  | **Session 4 - Tuesday afternoon** |
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|  | **PP4. Biocontrol, control and communities** | **Chair: Kerry Everett** |
| 1530 | Unravelling the ecological mechanisms involved in the effect of *Aureobasidium sp*. on apple fruit surface microbiome in relation to postharvest rot development  | Samir Droby  |
| 1545 | Volatile organic compounds of *Wickerhamomyces anomalus* prevent postharvest black spot disease in tomato  | Qiya Yang  |
| 1600 | After harvest ethanol vapor treatment reduces fungal load in Medjool dates  | Amnon Lichter  |
| 1615 | Postharvest shelf-life extension of raspberries using single and dual release sulphur-dioxide emitting sheets  | Hannah James |
| 1630 | A study on construction of complex biocontrol microbial community based on microbiome to control postharvest diseases of red grapes  | Kaili Wang  |
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|  | **Session 5 - Wednesday morning** |
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| 830 | **PLENARY: Sustainability challenges and future opportunities for food production in a changing world** |
| 900 | **Brent Clothier** |
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|  | **5A. Controlled atmospheres** | **Chair: Maarten Hertog** |
| 910 | Controlled atmosphere storage: research and commercial  | Jeremy Burdon  |
| 925 | Two-factorial dynamic storage systems for pome fruit: oxygen and temperature control based on CO2 release rates  | Felix Büchele  |
| 940 | Expression changes of ripening genes in kiwifruit under regular cool storage after controlled atmosphere  | Yujie Han  |
|  | **5B. Non-destructive assessment (2)** | **Chair: Ringo Feng** |
| 910 | Chlorophyll fluorescence as a tool for non-destructive assessment of greening in potato tubers  | Sidsel Fiskaa Hagen  |
| 925 | Feasibility study to utilize near-infrared spectroscopy as a decision support tool to reduce asparagus tip breakdown  | Sandra Landahl  |
| 940 | Assessing vanilla bean dry matter and quality aspects non-destructively with NIR – model development for Vava’u, Tonga  | Fran Doerflinger  |
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|  | **5C. Applications of 1-MCP (1)** | **Chair: Zora Singh** |
| 910 | SmartFresh™ in the preservation of mangoes postharvest quality after long periods of cold storage  | Hannah James |
| 925 | A new 1-MCP delivery system opening up opportunities for small packaging  | Wendy Schotsmans  |
| 940 | Physiological and biochemical changes associated with the ripening of Banganapalli and Neelam mangoes, induced by 1-methyl cyclopropene (1-MCP)  | Jeyakumar Prabhakaran  |
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|  | **5D. Wound healing** | **Chair: Marian McKenzie** |
| 910 | Rapid wound healing - a new strategy to reduce postharvest losses in fruit and vegetables  | Yang Bi  |
| 925 | Curing temperatures affect the wound healing metabolism of ‘Clearwater Russet’ potato tubers  | Gustavo Henrique de Teixeira  |
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|  | **PP5. Integrated management** | **Chair: Julia Meitz-Hopkins** |
| 910 | Integrated management of superficial mould on stored pome fruit  | Inge Block |
| 925 | Pre- and post-harvest management to reduce losses during storage of pome fruits  | Alessio Bernasconi  |
| 940 | Innovative approaches to disinfect biowastes contaminated by plant pathogens: steaming and composting of onion waste contaminated with *Sclerotinia cepivorum*  | Belachew Asalf Tadesse  |
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|  | **FVH5. DISCUSSION: Initiatives to promote F&V consumption** | **Chair: Carolyn Lister** |
| 910 | 5+ a day initiative in New Zealand |  |
| 925 | Open discussion - what happens in other countries |  |
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|  | **Session 6 - Wednesday mid-morning** |
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|  | **6A. Non-destructive assessment (3)** | **Chair: Andrew McGlone** |
| 1030 | Non-destructive assessments of near-surface structures of horticultural products  | Mo Li  |
| 1045 | Analysing changes in biochemical attributes of strawberry during postharvest storage by means of multidimensional point clouds  | Nicolas Tapia Zapata  |
| 1100 | Identify chilling tolerance-related traits of wax apple (*Syzygium samarangense*) to develop non-destructive selecting technologies by hyperspectral analysis  | Yen-Chou Kuan  |
| 1115 | Towards a uniform pear postharvest outcome: adapting a chlorophyll-carotenoid index based on hyperspectral images  | Rene Mogollon  |
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|  | **6C. Novel coatings** | **Chair: Rungsinee Sothornvit** |
| 1030 | Using a semipermeable fruit coating as an alternative to CA/MA for international marketing of tree-ripe mango – internal atmospheres  | Jeffrey K. Brecht  |
| 1045 | Optimization of *Opuntia ficus-indica* bioactive composite coating to increase bananas shelf life without refrigeration  | Mawande Shinga |
| 1100 | Enhancing shelf-life quality of ‘Carmen’ pears with self-assembled montmorillonite clay-poly vinyl alcohol nanocomposite edible coating  | Alessandro Bonora  |
| 1115 | Edible composite films based on chitosan-cellulose nanofiber incorporated with microencapsulated passion fruit peel powder enhanced shelf-life of organic pomegranate arils  | Olaniyi Fawole  |
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|  | **6D. Mathematical modelling postharvest** | **Chair: Gustavo Henrique de Teixeira** |
| 1030 | Kinetic modelling of ethylene biosynthesis and signaling pathways in tomato fruit during ripening and post-harvest storage  | Maarten Hertog  |
| 1045 | A 3D reaction-diffusion model for ethylene transport in tomato fruit during ripening  | Bart Nicolai  |
| 1100 | Conceptualizing the kiwifruit supply chain for integrated modelling of postharvest systems  | Maryam Alavi  |
|  | **PP6. Diagnostics (2)** | **Chair: Carmit Ziv** |
| 1030 | Improvements in postharvest apple handling from a pathology perspective  | Jorunn Børve  |
| 1045 | A molecular tool to identify fungal postharvest pathogens of pear  | Julia Meitz-Hopkins  |
| 1100 | On-orchard botrytis detection tool for apples  | Cathy de Villiers |
| 1115 | Non-wounding contact-based fungal fruit inoculation and multispectral imaging for early fruit infections  | Adrian Sbodio  |
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|  | **FVH6. Nutritional composition of crops** | **Chair: Catrin Guenther** |
| 1030 | Orange fleshed mangoes result in higher pro-Vitamin A content  | Tatsuyoshi Takagi |
| 1045 | Nutritional analysis of cassava leaves for human consumption  | Joachim Müller |
| 1100 | Nutritional composition of New Zealand grown macadamias  | Carolyn Lister |
| 1115 | Mushrooms: A sustainable and feasible food-based solution to vitamin D deficiency to include in dietary guidelines  | Carlene Starck |
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|  | **Session 7 - Thursday morning** |
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|  | **7A. Physiological responses to controlled atmospheres**  | **Chair: Pieter Verboven**  |
| 900 | Controlled atmosphere conditions affect the ripe fruit quality of ‘Hass’ avocado  | Jeremy N. Burdon  |
| 915 | Programmed cell death and the controlled atmosphere storage of ‘Conference’ pear fruit  | Alexxandra Ty  |
| 930 | Dissecting the effects of dynamic controlled atmosphere (DCA) hypoxic stress on‘Red Delicious’ apple fruit postharvest physiology | Stefano Brizzolara  |
| 945 | Impact of low-oxygen atmosphere on husk-scald in pomegranates  | Giancarlo Colelli  |
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|  | **7B. Phytosanitary**  | **Chair: Jung Cho** |
| 900 | Comparison of postharvest quarantine treatments on fresh fruit quality  | John Golding  |
| 915 | Developing novel postharvest treatments for insect removal and rot control  | Allan Woolf  |
| 930 | Progress on establishing an X-ray sanitary and phytosanitary research and development program for horticulture in New Zealand  | Lisa Jamieson |
| 945 | Effect of phytosanitary irradiation on fruit quality of Thai pomelo cv. Khao Nam Pueng (*Citrus maxima* (Burm.) Merr.) during storage  | Peerasak Chaiprasart  |
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|  | **7C. Ethylene and kiwifruit**  | **Chair: Andrew East** |
| 900 | Post-storage softening of ‘Zes008’ kiwifruit  | Christina Fullerton  |
| 915 | The ethylene responsiveness of ‘Hayward’ kiwifruit  | Tengfei Wang |
| 930 | Evaluation of MAP bags and ethylene absorbers in cold storage of different varieties of kiwifruit  | Gianni Ceredi  |
| 945 | Post-harvest behavior characterization of a new variety of *Actinidia chinensis*, var. chinensis (cv Ac 459 011)  | Camilla Cinelli |
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|  | **7D. Gene editing** | **Chair: Catrin Guenther** |
| 900 | Next generation postharvest tools  | Loren Honaas  |
| 915 | Targeting pectin degrading enzymes using CRISPR-Cas9 for improving tomato fruit shelf-life and processing quality  | Isabel Ortega-Salazar  |
| 930 | Development of innovative tools for understanding postharvest senescence in inflorescence vegetables  | Tie Liu  |
| 945 | The Ri-technology: improving postharvest performance of ornamental potted plants | Henrik Lutken |
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|  | **PP7. Disease cycles (1)** | **Chair: Belachew Tadese** |
| 900 | Modelling infection periods for apple bull’s eye rot  | Kerry Everett  |
| 915 | Postharvest phytophthora-rot of pome fruit  | Marcel Wenneker  |
| 930 | Pre- and postharvest fusarium findings in apple  | Jorunn Børve  |
| 945 | Postharvest apple diseases: a gauge for tree health in mid-Atlantic USA apple orchards?  | Kari Peter  |
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|  | **FVH7. Understanding the health effects of plant foods (2)** | **Chair: Suman Mishra** |
| 900 | *Garcinia mangostana* L. aqueous rind extracts protect human chromosomes from gamma irradiation  | Vivian Panes |
| 915 | Unlocking the immunomodulatory capacities and gastrointestinal impact of apple-derived vesicles in human health  | Luca Lovatti |
| 930 | Effects of apple intake on intestinal microflora in human volunteers and its bifidogenic factors  | Yasuo Suzuki |
| 945 | Evaluation of the radioprotective properties of the aqueous extracts of *Curcuma longa* L. rhizomes on human chromosomes  | Vivian Panes |
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|  | **Session 8 - Thursday mid-morning** |
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|  | **8A. Growing condition effects on postharvest**  | **Chair: Jason Johnston** |
| 1045 | Influence of canopy position on initial starch content, conversion rate, and storability of ‘Rosy Glow’ apples  | Jason Ladegourdie |
| 1100 | The impact of cultivation light intensity on the postharvest quality of *Perilla Frutescens*  | Ieva Gudzinskaite |
| 1115 | Apple fruit cutin components during storage are governed by orchard heat and sun exposure  | Dave Rudell  |
| 1130 | Selenium biofortification of kale microgreens improves postharvest quality and shelf-life  | Mahya Tavan  |
| 1145 | Effect of the combination of postharvest treatments CaCl2 and blue LED on strawberry (*Fragaria x ananassa*, Duch) quality parameters  | Silvia Langer  |
| 1200 | Improved tolerance and postharvest loss reduction in tomato (*Solanum lycopersicum* L.) | Darshani Weerehewa |
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|  | **8B. Temperature control in the supply chain**  | **Chair: Pieter Verboven**  |
| 1045 | Application of remote supply chain monitoring for optimising temperature management and extending mango shelf life  | Hung Duong  |
| 1100 | A field-based cooling rig for rapid removal of field-heat from strawberries  | Richard Colgan  |
| 1115 | Influence of the innovative HDCOLD® air-cooler technology on fruit quality  | Séverine Gabioud Rebeaud  |
| 1130 | Pallet spinning to alleviate temperature heterogeniety during blueberry cooling | Andrew East |
| 1145 | Temperature kinetics of whole canopy and sweet cherry clusters by means of 4D point clouds  | Nicolas Tapia Zapata  |
| 1200 | The state of bulk cold stores used in handling perishable agricultural produce in Ugandan cities  | Matia Mukama  |
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|  | **8C. Food Waste** | **Chair: Muhammad Sohail Mazhar**  |
| 1045 | Food loss and waste data gaps in the horticultural value chains: a review of literature  | Jane Ambuko Lukhachi  |
| 1100 | Quantifying and assessing causes of postharvest losses  | Marie Olsson  |
| 1115 | Impact of harvest season and processing practice on microbial decay and food waste of carrots  | Merete Edelenbos  |
| 1130 | A critical assessment of bell pepper postharvest losses among small-scale farmers in South Africa  | Edwin Karoney  |
| 1145 | Wastages and profitability of different fruit and vegetables in whole sale markets of Pakistan  | Muhammad Amin  |
| 1200 | Value chain mapping and assessment of pre and postharvest losses of purple passionfruit in Vietnam  | Guinevere Ortiz  |
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|  | **8D. Prevention of disorders** | **Chair: Pietro Tonutti** |
| 1045 | Comparative analysis of physiological responses and proteomic profiles during early chilling stress and recovery in peel sub-epidermal tissues of mature green-banana | Lan-Yen Chang  |
| 1100 | MaHsf24, a novel negative modulator, regulates cold tolerance in banana fruit by repressing the expression of HSPs and antioxidant enzyme genes  | Jian-ye Chen  |
| 1115 | Predicting the risk of banana fruit chilling injury based on postharvest handling temperature and time  | Andrew Macnish  |
| 1130 | Synergistic effect of postharvest oxalic acid dip treatment and modified atmosphere packaging on storage life and quality of ‘Fuyu’ persimmon  | Zora Singh  |
| 1145 | Fumigation of lemon oil and modified atmosphere packaging alleviates chilling injury and maintains fruit quality of ‘Fuyu’ persimmon  | Mahmood Ul Hasan  |
| 1200 | Preharvest spermidine treatment reduces chilling injury in 'Sanguinelli' blood orange  | Jenifer Puente Moreno  |
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|  | **PP8. Postharvest treatments (2)** | **Chair: George Karaoglandis** |
| 1045 | KEYNOTE: Natural solutions for postharvest decay control. Commercialization readiness and challenges | Wendy Schotsmans |
| 1105 | Protective and curative ability of postharvest potassium phosphite treatment to control Phytophthora brown rot of citrus fruit  | Jan van Niekerk  |
| 1120 | Application of *Melaleuca cajuputi* extract | Nattaya Montri |
| 1135 | Effect of SO2 treatment on *Penicillium spp*., the cause of blue mold of table grapes, and increased sensitivity to pyrimethanil when combined with Timorex Gold®  | Jose Luis Henriquez  |
| 1150 | Reduction of imazalil doses for the control of citrus postharvest green and blue molds through the combination with sodium benzoate and heat  | Lluís Palou  |
| 1205 | Decrease in fungicide concentrations in reused post-harvest treatment waters by interaction with soil and field substances and treated fruit  | Javier Parra  |
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|  | **FVH8. Understanding growing systems impacts on composition** | **Chair: Bhimu Patil** |
| 1045 | Examine the impact of rising temperatures during fruit development on metabolic profiles in blueberries  | Itay Maoz |
| 1100 | Effects of selenium and sulfur interaction on the nutritional quality and bioactive substances accumulation in broccoli  | Hongju He |
| 1115 | How do biodynamic and organic production systems impact nutritional density? A review  | Carolyn Lister |
| 1130 | Production of nickel-free strawberries and tomatoes in central Italy | Luca Mazzoni |
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|  | **Session 9 - Thursday afternoon** |
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|  | **9A. Pome Fruit scalds and browning**  | **Chair: Dave Rudell** |
| 1330 | Molecular mechanism of hypoxia inhibiting the occurrence of superficial scald in ‘Ya’ pear  | Yanmin Du  |
| 1345 | The effect of different cooling protocols and storage durations on soft scald and bitter pit development in a susceptible apple cultivar ‘Scifresh’  | Jason Ladegourdie  |
| 1400 | The growing season affects the result of temperature preconditioning before cold storage of ‘Honeycrisp’ apples (*Malus domestica* Borkh.)  | Carolina A. Torres  |
| 1415 | Characterizing carbon dioxide-related postharvest disorders in apple cortex  | Emmi Klarer  |
| 1430 | Core browning in ‘Honeycrisp’ offspring  | Emily Follett  |
| 1445 | Step-down cooling treatments in conjunction with 1-methylcyclopropene, to reduce the risk of internal browning of ‘Cripps’ Pink’ apples  | Ian Crouch  |
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|  | **9B. Preharvest treatments for postharvest** | **Chair: Jeremy Burdon** |
| 1330 | Postharvest resilience strategies for strawberry: unveiling the preharvest impact of glycine betaine and calcium formate on fruit quality and storability  | María Emma García Pastor  |
| 1345 | Preharvest methyl jasmonate spray maintains postharvest quality of cold stored raspberries by modulating cell wall stability and phenolic metabolism  | Hafiz M Shoaib Shah  |
| 1400 | Improving camarosa strawberry fruit characteristic by furchlorfenuron (CPPU) preharvest application  | Feryal Varasteh Akbarpour  |
| 1415 | Preharvest application of 1-MCP on persimmon  | Ana Pilar Moreno  |
| 1430 | Effect of five fruit bags and subsequent hot water treatment on the physico-chemical and antioxidant quality of ‘Çarabao’ mango  | Emma Ruth Bayogan  |
| 1445 | ReTain and Harvista effects on maturity and interactions with postharvest 1-MCP on storage quality of ‘Honeycrisp’ apples  | Christopher B. Watkins  |
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|  | **9C. Consumer perception** | **Chair: Macarena Farcuh** |
| 1330 | Disorders, rots, and the appearance of fruit: determining consumer responses to visual cues of quality  | Roger Harker  |
| 1345 | Improving instrumental prediction of postharvest eating quality of fruit: barriers and future opportunities  | Birgit Ha  |
| 1400 | Environmental and genetic effects on postharvest sensory quality of salad rocket (*Eruca vesicaria* subsp. sativa)  | Luke Bell  |
| 1415 | A comprehensive sensorial analysis and flavanones profiling in a new red-fleshed pomelo × grapefruit hybrid (‘Redson’) after harvest and during storage  | Itay Maoz  |
| 1430 | Postharvest quality and sensory attributes of four blackberry cultivars  | Zilfina Rubio Ames  |
| 1445 | What sensory qualities and emotion responses do U.S. consumers want in premium olive oil and what role does country of origin labeling play in their purchase?  | Ann Colonna  |
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|  | **9D. Supply chain development** | **Chair: Angelos Deltsidis**  |
| 1330 | Mango value chain development in Pakistan: a success story of research and development model  | Aman Ullah Malik |
| 1345 | Value chain improvement through postharvest research and development: case studies with small-scale onion and potato growers in Pakistan | Raheel Anwar |
| 1400 | Postharvest temperature management of horticultural crops using a cold chain system for smallholder farms and small retailers | Kevin Yaptenco |
| 1415 | Case studies of concrete and iron solar refrigerated evaporatively cooled storage structures in India: successes and failures  | Randolph Beaudry  |
| 1430 | Off-grid solar-powered cold storage of tomatoes in Nigeria  | Joachim Müller  |
| 1445 | Effect of storage temperature on shelf-life and quality of purple passion fruit grown under Viet Nam conditions (*Passiflora edulis* Sims.)  | Khanh Ngoc Nguyen  |
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|  | **PP9. Pathogen genomics/plant pathogen interactions** | **Chair: Stefanos Testempasis** |
| 1330 | Epigenetic regulation on pathogenicity and patulin biosynthesis in *Penicillium expansum*  | Boqiang Li  |
| 1345 | Rapid identification of quiescent *C. gloeosporioides* in fruits: a new approach to minimize postharvest losses  | Evgeni Eltzov  |
| 1400 | Sequencing and comparative genomics of *Athelia bombacina*  | Xiaohui Jia  |
| 1415 | Molecular pathogenic mechanism and regulatory network of postharvest important fungal pathogen *Botrytis cinerea*  | Shiping Tian  |
| 1430 | New discoveries on emerging postharvest diseases of apples in northern Italy  | Davide Spadaro  |
| 1445 | Benzothiadiazole-mediated disease resistance and fruit ripening of harvested banana and the possible mechanism  | Xiaoyang Zhu  |
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|  | **Session 10 – Thursday afternoon** |
| 1530 | **Workshops** |
|  | **Room PP**. Workshop 1 - Mind the Gap!! Where scientific understanding and commercial application don’t always meet | **Sponsor: Zespri International**  |
|  | **Room E**. Workshop 2 - Market access & X-ray/Ionising radiation | **Sponsor: Steritech** |
|  |  Ben Reilly - Steritech’s phytosanitary irradiation journey - Applying |  |
|  |  research for commercially significant outcomes |  |
|  | **Room A**. Workshop 3 - Reducing fungicides - spray-free orchards |  |
|  | **Room FVH**. Workshop 4 – Food and natural health product regulatory considerations |  |
|  | **Room C**. Workshop 5 – Crop plants as models |  |
|  | **Room D**. Workshop 6 – Practical use of monitoring technologies in commercial supply chains  | **Sponsor: Xsense** |
|  | **Off site**. Workshop 7 – Discover sustainable packaging: a workshop at Scion | **Sponsor: Scion** |
|  | **Room B**. Workshop 8 - Postharvest, food loss, and value chain challenges in the Asia-Pacific region | **Sponsor: ACIAR** |
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|  | **Session 11 - Friday morning**  |
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| 830 | **PLENARY: Postharvest disease control - the fourth dimension and the pathobiome paradigm** |
| 900 | **Samir Droby** |
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|  | **11A. Topics in food safety** | **Chair: Hidemi Izumi** |
| 910 | Food safety of fresh produce: striking a balance between compliance, sustainability and profitability  | Sukhvinder Pal (SP) Singh |
| 925 | From field to fork- do postharvest procedures ensure food safety?  | Danielle Duanis-Assaf  |
| 940 | NZ horticultural food safety responses to cyclone Gabrielle flood event Feb 2023  | Graham Fletcher |
| 955 | Patulin risk in apple within a month after harvesting  | Jorunn Børve  |
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|  | **11B. Non-destructive assessment (4)** | **Chair: Sandra Landahl** |
| 910 | Physical degradation of onion quality after storage identified using X-ray CT  | Bayu Nugraha  |
| 925 | Non-destructive measurement of mechanical properties during browning development in the compressed area of apples and nectarines | Magdalena Urbanska |
| 940 | Fruit firmness by impact response analysis; theory, practice, new device and a curious observation    | Andrew McGlone |
| 955 | A non-contact acoustic resonance method for fruit firmness measurement  | Sam Langdon-Arms  |
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|  | **11C. Innovative Tech (2)** | **Chair: John Golding** |
| 910 | Phenylalanine: Improve fruit quality and resistance against biotic and abiotic stress  | Noam Alkan  |
| 925 | Impact of oxygen micro-nano bubble water on the quality and safety of ‘Fan Retief’ guava (*Psidium guajava* L.)  | Harold Malahlela |
| 940 | Postharvest methyl jasmonate application curtails decay incidence and alleviates oxidative stress by mediating reactive oxygen species and antioxidant defence system in cold stored jackfruit bulbs  | Jashanpreet Kaur  |
| 955 | Glucose treatment extends the vase life of gerbera cut flowers by the improved water uptake  | Toru Hirose  |
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|  | **11D. Optimisation of supply chains** | **Chair: Adam Goldwater** |
| 910 | Exploiting large-scale packinghouse data in combination with postharvest trials in order to develop a better logistic management system for ‘Orri’ mandarins  | Ron Porat  |
| 925 | Simulating supply chain handling scenarios to determine suitability of ‘R2E2’ mango fruit for seafreight  | Hung Duong |
| 940 | Postharvest interventions to facilitate sea freight of melons from Australia to export markets  | Sukhvinder Pal (SP) Singh |
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|  | **PP11. Disease cycles (2)** | **Chair: Srdjan Acimovic** |
| 910 | Examination of dendrometers to determine apple lenticel susceptibility to bull’s eye rot in the orchard  | Reiny W.A. Scheper  |
| 925 | Major and emerging postharvest diseases impacting berry crops in Canada  | Rishi Burlakoti  |
| 940 | Anticipating an incursion by the grape pathogen, *Guignardia bidwellii*  | Lisa Jamieson |
| 955 | Postharvest decay and spoilage of tomato from small scale farmers at harvest and storage  | Tintswalo Molelekoa  |
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|  | **FVH11. A focus on the Pacific** | **Carolyn Lister** |
| 910 | An overview of the influential developments and stakeholders within the food composition program of the Pacific Islands: current and future directions | Vincent Lal |
| 940 | The Power of Pacific Cuisine | Robert Oliver |
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|  | **Session 12 - Friday mid-morning**  |
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|  | **12A. Applications of AI** | **Chair: Bart Nicolai** |
| 1045 | Artificial intelligence as a tool for optimization of postharvest protocols  | Dan Gamrasni  |
| 1100 | Non-destructive codling moth detection in pear fruit using X-ray imaging and deep learning  | Pieter Verboven  |
| 1115 | Melon color analysis for smarter harvest decisions and quality evaluations  | Elia Gutierrez-Baeza  |
| 1130 | Development of a vase life prediction system for cut roses based on a cultivar-specific scoring system  | Byung-Chun In  |
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| 1045 | **12B. Food safety workshop** | **Chair: Agam Nangul** |
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|  | **12C. Postharvest ripening** | **Chair: Romina Pedreschi** |
| 1045 | Kiwifruit softening: a cell wall study  | Christina Fullerton  |
| 1100 | New insights on the regulatory biology of the ripening block in avocado  | Donald Hunter  |
| 1115 | A new role for gibberellin A metabolism in modulating the pre-climacteric phase of avocado (*Persea americana* Mill. ‘Hass’) fruit postharvest  | Catrin Guenther  |
| 1130 | The effect of storage temperature on post-harvest transcriptomic dynamics in ‘Red Aroma’ apple fruit | Theresa Weigl  |
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|  | **12D. Applications of 1-MCP (2)** | **Chair: Hannah James** |
| 1045 | 1-MCP treatment in combination with DCA storage: the potential for loss of aroma in apple  | Randolph M. Beaudry  |
| 1100 | Effect of 1-methylcyclopropene (1-MCP) on disorder development in ‘Scifresh’ apples stored under regular and controlled atmosphere conditions  | Jason Ladegourdie  |
| 1115 | Pre- and postharvest ethylene combined with 1-methylcyclopropene differentially affects sprout growth in red and yellow onion (*Allium cepa* L.) bulbs  | Arlan James Rodeo  |
| 1130 | Physiological changes in Grand Naine banana fruits as influenced by 1-methyl cyclopropene (1-MCP) under different storage environments  | Jeyakumar Prabhakaran  |
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| 1145 | **Postharvest Symposium ISHS Business meeting (Room A)** |  |
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| 1045 | **Room PP. ISHS Business meeting** |  |
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|  | **PP12. Novel technologies** | **Chair: Shiping Tian** |
| 1130 | dsRNA as a promising eco-friendly treatment to control postharvest diseases  | Noam Alkan  |
| 1145 | Dual role of (E)-2-hexenal in modulating postharvest interaction between fruit and *Botrytis cinerea*  | Yanqun Xu  |
| 1200 | ZIF-8 nanoporous material for thymol release: a novel strategy to control ‘Cavendish’ banana fruit crown rot  | Johnrell Zuniega  |
| 1215 | Induced resistance as a tool to manage postharvest decay of fresh fruit and vegetables  | Gianfranco Romanazzi  |
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|  | **FVH12. The value of traditional/Indigenous crops** | **Chair: Tatsu Takagi**  |
| 1045 | Impact of domestic storage on bioactive phytochemicals and sugars in red-fleshed cultivars, ‘Rubycot’ plumcot and ‘Queen Garnet’ plum | Michael Netzel |
| 1100 | Exploring the nutritional value of native Australian citrus fruit  | Joel Johnson |
| 1115 | Unlocking the nutritional potential of Australian indigenous edible halophytes  | Michael Netzel |
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| 1130 | **Room FVH. FAVHEALTH ISHS business meeting** |  |
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|  | **Session 13 - Friday afternoon** |
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|  | **13B. Ethylene in the supply chain**  | **Chair: Jeffrey Brecht** |
| 1315 | Ethylene as a contaminant at the retail end of the coolchain | Andrew East |
| 1330 | Influence of low temperature storage and exogenous ethylene treatment on physico-chemical fruit quality of ‘Sindhri’ and ‘Samar Bahisht Chaunsa’ mangoes  | Muhammad Amin  |
| 1345 | Integrated quality control of Indian jujube (*Ziziphus mauritiana*) exportation by collaborating forced-air cooling and 1-methylcyclopropene treatment  | Min-Chi Hsu  |
| 1400 | Postharvest ethanol treatment promotes ripening of kiwifruit through stimulation of ethylene production  | Yasuo Suzuki  |
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|  | **13C. MAP packaging**  | **Chair: Olaniyi Fawole** |
| 1315 | The effect of modified atmosphere packaging on postharvest quality of green “eat-all” almond during cold storage  | Giancarlo Colelli  |
| 1330 | Improving storability and shelf-life of red dragon fruit using O2 absorbent-based modified atmosphere packaging  | Bayu Nugraha  |
| 1345 | Effects of storage temperature and packaging on the shelf life of peeled garlic cloves  | Prangthong Kwanhong  |
| 1400 | Optimum packaging system for export transportation of strawberries and grapes by air  | Hidemi Izumi  |
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|  | **13D. Product volatiles** | **Chair: Merete Edelenbos**  |
| 1315 | Inhibition of branched-chain ester synthesis by ALS inhibitors provides evidence for the origins of ester precursors  | Randolph M. Beaudry  |
| 1330 | The transition to peat-free cultivation: transplantation medium effects on mature crop phytochemistry and flavour compounds  | Luke Barnes  |
| 1345 | Quantitative changes of volatile compounds in ‘Honeycrisp’ apple during cold storage in association with soft scald disorder and delayed cooling treatment  | Jun Song  |
| 1400 | Comparative analysis on flesh texture and aroma components of different pear varieties  | Luming Tian  |
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|  | **PP13. Microbiome / Gene editing**  | **Chair: Xiangming Xu** |
| 1315 | Postharvest treatments with biocontrol agents and essential oils strongly modify the fruit microbiome  | Davide Spadaro  |
| 1330 | Yeast species associated with postharvest rots in sugarbeets  | Shyam Kandel  |
| 1345 | Deciphering the effects of agronomical practices on aspergillus incidence and carposphere’s microbial communities of grapevine  | Stefanos Testempasis  |
| 1400 | CRISPR/Cas9 editing of MLO genes to improve powdery mildew resistance in Strawberry | Yingjie Li |
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|  | **Full poster list (Postharvest Symposium)** |  |
| PH1 | Water loss modulates skin chilling expression in ‘Hass’ avocado fruit  | Jeremy Burdon  |
| PH2 | Ranking the incidence of core-flush in Braeburn apple orchards stores based on ethane and CO2 efflux  | Richard Colgan  |
| PH3 | No soft scald in ‘Red Aroma’ apple fruit: mission possible?  | Theresa Weigl  |
| PH4 | Lenticel spots - primary and secondary causes  | Jorunn Børve  |
| PH5 | Postharvest storage temperatures prior to CA storage affect susceptibility of ‘Empire’ and ‘McIntosh’ apples to carbon dioxide injury  | Christopher B. Watkins  |
| PH6 | Watercore in Eden  | Emily Follett  |
| PH7 | Oxidative pinking discolouration of leaves of different positions of lettuce head  | Muhamad Hazwan Yahya |
| PH8 | Underlying mechanism of a postharvest deformation, blossom end-enlargement in cucumber fruits  | Rui Li |
| PH9 | Differential responses of targeted major metabolites to chilling injury-related browning disorders in yellow bell pepper fruit  | Si-Eun Byeon  |
| PH10 | Sugarbeet root storage conditions and plant genetics affect sugar transporter gene expression with likely effects on postharvest sucrose losses  | Karen Fugate  |
| PH11 | Transcriptional and enzymatic changes in carbohydrate metabolism in wounded sugarbeet taproots  | Fernando Finger  |
| PH12 | Mechanisms involved in the induction of non-climacteric fruit ripening: insights from transcriptomic analysis of *Capsicum annuum*  | I Chun Pan  |
| PH13 | Volatile compound dynamics and underlying transcriptomics of apple ripening before and after storage  | Heidi Hargarten  |
| PH14 | Changes in internal structure and cell wall polysaccharides of ‘Hakuho’ fruits during ripening  | Megumi Ishimaru |
| PH15 | Dissection of mRNA ac4C acetylation modifications in AC and Nr fruits: insights into the regulation of fruit ripening by ethylene  | Yanyan Zheng |
| PH16 | Physicochemical and nutritional quality of new loquat cultivars  | Nariane Q. Vilhena  |
| PH17 | Stimulus-responsive QR codes: potential cost-effective options for intelligent packaging    | Kate Parker |
| PH18 | In vitro acaricidal activity of longan seed hexanoic extract against African red mite  | Jarongsak Pumnuan  |
| PH19 | Storage duration, harvest injury, and fungal pathogens promote ethanol accumulation in postharvest sugarbeet roots  | John Eide  |
| PH20 | Fortification with amino acids: a method to capture the benefits of nitric oxide and hydrogen sulphide in extending fresh produces postharvest life  | Penta Pristijono  |
| PH21 | Pre-storage UV-C treatment as an alternative method to maintain the quality of Brussels sprouts  | Penta Pristijono  |
| PH22 | Case study on cucumber transportation using modified atmosphere packaging to prevent postharvest deformation, blossom-end enlargement  | Yuki Tashiro  |
| PH23 | Effect of ethyl formate and low pressure storage on the quality of green capsicums  | Penta Pristijono  |
| PH24 | Selenium biofortification affects postharvest in horticultural crops  | Pietro Tonutti  |
| PH25 | Effects of different packaging methods on the physiology and quality of fresh *Zanthoxylum bungeanum* during storage  | Yi Wang  |
| PH26 | Effect of storage under controlled atmospheres on quality and volatile compounds of ‘Candy Snap’ table grapes  | Mary Lu Arpaia  |
| PH27 | Effect of fertilizer management on fruit preservation in strawberry  | Hiroki Umeda  |
| PH28 | Novel active pectin edible coating with deep eutectic solvent plasticizer and essential oil to extend the quality of banana  | Rungsinee Sothornvit  |
| PH29 | Effect of detergents and coatings on skin greasiness in WA 38 apples  | Rene Mogollon  |
| PH30 | Postharvest losses of apple fruit stored in commercial conditions in Estonia, Finland and Norway  | Ulvi Moor  |
| PH31 | Harvest maturity optimization for 'Jin-Huang' mango with ethylene sensitivity in ripening attributes  | Lan-Yen Chang  |
| PH32 | Mitigating post-harvest losses in central Vietnam's fruit industry  | Joachim Müller  |
| PH33 | Local in-transit handling of ‘Jewel’ tomato from Maragusan, Davao del Norte to Baybay City, Leyte in the Philippines  | Emma Ruth Bayogan  |
| PH34 | Investigating post-harvest physiological changes and ripening characteristics of kiwifruit (*Actinidia chinensis*) produced in Taiwan  | Chia-Chih Chang  |
| PH35 | An assessment of post-Covid horticultural food loss in Samoa, Fiji, Tonga and Solomon Islands  | Seeseei Molimau-Samasoni |
| PH36 | Evaluating the quality of fresh malaysian pineapples during the first export trial to Germany | Joanne Cho Lee YIng |
| PH37 | Classification of rotten taro for automatic sorting system using near-infrared spectroscopy and k-Nearest Neighbor model  | Taro Kimura  |
| PH38 | ControlTec™: Water sustainable use across ControlTec Applicator Washer  | Matt Punter |
| PH39 | Hyperspectral imaging for estimating substances related to enzymatic browning of strawberry fruits  | Yuya Mochizuki  |
| PH40 | Development of automatic sorting system for taro using image processing  | Noriko Takahashi  |
| PH41 | Linear regression analysis approach to predict fruit quality attributes and metabolic variables for fruit maturity in two strawberry cultivars  | Jinwook Lee  |
| PH42 | Non-destructive optical method to detect zucchini fruit held at chilling temperatures by using VIS-NIR and NIR hyperspectral imaging and supervised classification algorithms  | Danial Fatchurrahman |
| PH43 | Retention of postharvest okra (*Abelmoschus esculentus* L.) freshness by focusing on stem end length during preparation  | Lime Sato  |
| PH44 | Novel Biosensor for precision horticulture: real-time monitoring of plant sap’s ionic content | Dalila Pasquini |
| PH45 | Raspberry fruit quality and sensory organoleptic traits affected by climate change  | Carolina Contreras  |
| PH46 | 1-MCP helps prevent fry color darkening attributable to the use of ethylene as a sprouting inhibitor  | Matt Punter |
| PH47 | SmartFresh™ and avocado – growth location and maturity  | Matt Punter |
| PH48 | Biochemical and sensory attributes of jujube juice and syrup  | Muhammad Amin  |
| PH49 | VitaFresh™ Botanicals soft fruit: a novel plant- based coating for nectarines and plums  | Matt Punter |
| PH50 | Postharvest treatments and sensory properties of apple cultivars ‘Rubinstep’ and ‘Red Elstar’ | Ingunn Ovsthus  |
| PH51 | Improving quality and shelf life of fresh tomato fruits with post-harvest exogenous melatonin application  | Yasmine Godonou  |
| PH52 | Effect of melatonin combined with calcium chloride on the quality of fresh-cut ripe mango during storage  | Somsak Kramchote  |
| PH53 | 1-MCP delays the ripening of ‘Lamb Hass’ avocado after cold storage  | Alejandra Salvador Perez  |
| PH54 | Physiochemical and sensory quality of ‘Rubinstep’ of different maturities | Ingunn Ovsthus  |
| PH55 | Effect of preharvest calcium treatments on ‘Rojo Brillante’ persimmon quality  | Ana Pilar Moreno  |
| PH56 | Local handling of tree-bagged, hot water- and prochloraz-treated ‘Carabao’ mango from Davao to Manila, Philippines  | Emma Ruth Bayogan  |
| PH57 | Characterisation of *Opuntia ficus-indica* mucilage-based films incorporated with encapsulated beetroot waste extract powder for potential postharvest preservation  | Tshamisane Mkhari |
| PH58 | Broccolomics: Influence of postharvest temperature and irradiation on the vitamin C metabolism in broccoli flower buds  | Sidsel Fiskaa Hagen  |
| PH59 | Natural and modified zeolites as ethylene scaverngers during postharvest life of perishable horticultural produce | Camilla Cinelli |
| PH60 | Large-scale comparison of apple quality conservation of a direct CO2 and an indirect propane refrigeration system  | Felix Büchele  |
| PH61 | Advancements in post-harvest preservation techniques and equipment for leafy green vegetables | Yingtong Zhang |
| PH62 | 3D cloud point monitoring of purple carrots and golden kiwis during drying process | Muhammad Tayyab |
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|  | **Full poster list (FavHealth Symposium)** |  |
| FVH1 | Molecular mapping of the FA7.0 locus responsible for high-content of folate in cauliflower | Yunhua Ding  |
| FVH2 | Nutritional potential of cassava leaves as an underutilized component of the tuber crop | Joachim Müller  |
| FVH3 | Variation in yield, total chlorophyll, carotenoids and mineral content of field grown kale (*Brassica oleracea* Acephala group) varieties | Priit Põldma  |
| FVH4 | Vitamin B9 content in strawberry genotypes and accessions from different European countries: the Breeding Value project | Luca Mazzoni  |
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|  | **Full poster list (Postharvest Pathology Symposium)** |  |
| PP1 | Short antimicrobial peptides to combat botrytis fungal pathogen and control ‘Gray mould rot’ disease in fruits  | Fathumma Rizana Shiraz |
| PP13 | Unveiling the impact of postharvest treatment with *Aureobasidium sp.* isolate TCY70 on the microbiome of citrus fruit  | Pei-Hsin Lo |
| PP14 | Orange oil postharvest fruit application against *Botrytis cinerea*  | Julia Meitz-Hopkins |
| PP18 | Fungal complexes associated with postharvest superficial mould of pome fruit  | Inga Block |
| PP19 | First report of phytopathological problems during ginger post-harvest season  | Liliana Aragón |
| PP21 | The essential oils as biofungicide against strawberry *Colletotrichum acutatum*  | Neringa Rasiukeviciute |
| PP22 | Preharvest treatment with alternative plant protection products to control strawberry postharvest decay  | Neringa Rasiukeviciute |
| PP23 | Nitrogen effects on *Alternaria spp.* growth in vitro  | Alma Valiuskaite |
| PP25 | Exploring the effect of electrolyzed water against brown rot disease (*Monilinia spp.*) on peach fruits  | Stefanos Testempasis |
| PP33 | AaRgss differential regulate fungal development, stress response and appressorium-like formation in *Alternaria alternata*  | Yongcai Li |
| PP35 | Ozone treatment inhibited the blue mold development and maintained the main active ingredients content in *Radix astragali* infected by *Penicillium polonicum* by activating ROS metabolism | Zhiguang Liu |
| PP37 | Re-establishing the australian sesame industry: detection and identification of sesame seedborne fungi from target production sites  | Dante Adorada |
| PP40 | Detection of *Colletotrichum karsti and C. truncatum* causing anthracnose of melons in Hondur  | Jose Luis Henriquez |
| PP42 | The multi-copper oxidase synthesis gene PdFET5 plays an important role in the infection of citrus by *Penicillium digitatum*  | Hongyin Zhang |
| PP45 | Influence of hazelnut microbiome on kernel disease resistance  | Eva Baldassarre Svecova |
| PP47 | Apple wet core rot postharvest management  | Julia Meitz-Hopkins |
| PP48 | Dry lenticel rot – an emerging postharvest disease on apples in northern Italy: insights from inoculation assays  | TBC: Gianni Ceredi |
| PP49 | Postharvest fungal decay of tomatoes in the Western Cape  | Julia Meitz-Hopkins |
| PP50 | Evaluation of nitrogen effect on *Botrytis spp.* development  | Alma Valiuskaite |
| PP56 | Antifungal activity of ethylicin against *Penicillium expansum*  | Yuanyuan Zong |
| PP67 | Effect of betel leaf extract as an eco-friendly ‘green fungicide’ on the control of stem-end rot disease and overall  | Fathumma Rizana Shiraz |
| PP71 | Variability of postharvest pyrimethanil effects on decay during and after storage of ‘Fuji’ apple  | Felix Büchele |
| PP92 | Antifungal activity of natural extracts and essential oils against *Monilinia fructicola* in vitro and as ingredients of hydroxypropyl methylcellulose-based edible coatings for postharvest preservation of cold-stored ‘Angeleno’ plums  | María B. Pérez Gago |
| PP93 | Evaluation of the effectiveness of *Candida oleophila* against *Penicillium expansum* in postharvest storage  | TBC: Gianni Ceredi |
| PP94 | Efficacy of hydrogen peroxide + peracetic acid and trans-2-hexenal against apple rots during long-distance transport  | TBC: Gianni Ceredi |
| PP95 | The biocontrol potential of the yeast *Candida oleophila* against *Penicillium expansum* in stored apples  | TBC: Gianni Ceredi |
| PP96 | Early detect of botrytis rot in kiwifruit using hyperspectral imaging  | Yoshinori Kawagoe |
| PP99 | Untangling avocado stem-end rot: a metabolomic analysis of storage effects on ‘Hass’ avocados  | Fatemeh Khodadadi |
| PP100 | Diversity of fungi on the epidermis of apples: exploring the microbiome with a cost-efficient user-friendly method  | Felix Büchele |
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