

PROGRAM OF THE IX INTERNATIONAL KIWIFRUIT SYMPOSIUM

Hotel Ipanema Park, Porto, Portugal

WEDNESDAY 6th September

17:00 - 19:00 Registration of the participants
19:00 - 20:00 Reception and Welcome Party at Main Hall & Exhibition Room

THURSDAY 7th September

8:30 - 9:30 Registration of the participants

Room “Fernão Pires”

9:30 – 10:00	Opening ceremony Representative of the ministry of Agriculture: State Secretary of Forestry and Rural Development Eng. Miguel Freitas Representative of the International Society for Horticultural Science: Prof. Bernadine C. Strik President of the Portuguese Society for Horticultural Science: Prof. Domingos Almeida Conveners: Prof. Dulce Antunes and Prof. Pedro Pablo Gallego	
Session 1- Production, Economical Aspects and Marketing. Chair R. Ferguson		
10:00 –10:30	Plenary Main changes in the kiwifruit industry since its introduction: present situation and future - <u>G. Costa</u> ¹ , R. Ferguson ² , H. Huang ³ , R. Testolin ⁴	1
10:30 –10:45	The evolution of kiwifruit production in Portugal - <u>MD Antunes</u> ¹ , J. Franco ² , F. Veloso ³ , T. Panagopoulos ⁴	2
10:45 –11:00	Kiwifruit production and research in Spain: a story never told - <u>P. P. Gallego</u>	3
11:00 –11:30	Coffee Break & Posters Exhibition at “Room Alvarinho” & “Room Moscatel”	
Session 1- Production, Economical Aspects and Marketing. Chair G. Costa		
11:30 –11:45	Kiwi industry development in Chile, evolution and projections - <u>C. Cruzat</u>	4
11:45-12:00	Kiwifruit Status in Iran: Management and Production - <u>S. Maleki</u> ¹ , B. Maleki – Zanjani ¹ , E. Nezami-Alanagh ² , E. Barreal ² , PP. Gallego ²	5
12:00–12:15	A New Yellow-fleshed Kiwifruit Cultivar 'Jinmei' - <u>C. Zhong</u> , F. Han, D. Li, Z. Jiang, L. Xu, H. Huang	6
12:15-12:30	The kiwiberry chronicles ' A history of cold-hardy Actinidia in North America - <u>B. Guthrie</u> ¹ , I. Hale ² , W. Hastings ²	7
Session 1- Sponsor talks. Chair R. Testolini		
12:30-12-40	Fruit Control Equipments - New scientific acknowledgement in kiwifruit storage using sanitization systems (Ionny®) avoiding postharvest chemical treatments - <u>L. Fadanelli</u> , L. Turrini, F. Zeni, P. Mattè, L. Buglia	
12-40-12:50	Sofruileg - Introduction of new varieties of kiwifruit and their agronomic evaluation - Fabien Bec	
12:50-13:00	Unitec - Beyond visible quality - Giovanni Seganti	
13:00-13:10	Mafruta - Defects detection on Kiwi	

13:10-13:20	Jingold - First data about the cultivation of three new kiwifruit cultivar: Jinyan, Dong Hong, Z5z6	
13:20-13:30	Dori;Summerfruit - Summerfruit: New varieties and new growing systems - G. Dal Pane	

13:30 – 14:30 Lunch and poster exhibition

Room “Fernão Pires”

Session 2- Genetics and Breeding. Chair A. Atak

14:30-14:45	GBS-based deconvolution of the surviving North American collection of cold-hardy kiwifruit (<i>Actinidia</i> spp.) germplasm - <u>I. Hale</u> ¹ , A. Melo ¹ , R. Guthrie ²	8
14:45-15:00	Elevated ploidy levels do not improve adaptation and agronomic traits sustainably in natural kiwiberries (<i>Actinidia arguta</i> and related species) - <u>D. Li</u> ¹ , Y. Zhang ² , C. Zhang ²	9
15:00-15:15	iTRAQ-based quantitative proteomic analysis reveals alterations in the metabolism of <i>Actinidia arguta</i> - L. Miaomiao, Q. Xiujian, F. Jinbao, L. Yukuo, C. Jinyong, S. Leiming, <u>Z. Yunpeng</u>	10
15:15-15:30	An improved, manually edited <i>Actinidia chinensis</i> (kiwifruit) genome highlights the challenges associated with draft genomes and gene prediction in plants - <u>S. Pilkington</u>	11
15:30-15:45	Genome-wide identification and characterization of transcription factor family in kiwifruit (<i>Actinidia</i> spp.) and analysis of their responses to biotic and abiotic stress - <u>Z. Jin</u> , Z. Liu, X. Wang, X. Qi	12
15:45-16:00	Genomic predictions in diploid <i>Actinidia chinensis</i> (kiwifruit) seedlings - <u>C. Cheng</u> ¹ , P. Datson ¹ , E. Hilario ¹ , C. Deng ¹ , K. Manako ¹ , M. McNeilage ¹ , K. Hoata ²	13
16:00-16:30	Coffee Break & Posters at Exhibition Room “Room Alvarinho” & “Room Moscatel”	
Session 2- Genetics and Breeding. Chair S. Pilkington		
16:30-16:45	Kiwifruit (<i>Actinidia</i> spp.) breeding studies and new cultivar candidates in Turkey - <u>A. Atak</u> , K. Hahraman, Y. Doygaci, G. G. Kandilli	14
16:45-17:00	Rapid cis-evolution of a Y-encoded suppressor of feminization derived the dioecious sex determination in kiwifruits - <u>T. Akagi</u> ¹ , H. Ohtani ¹ , T. Morimoto ¹ , K. Beppu ² , I. Kataoka ² , R. Tao ¹	15
17:00-17:15	Three FT and multiple CEN and BFT genes regulate maturity, flowering and vegetative phenology in kiwifruit - <u>E. Varkonyi-Gasic</u> , C. Voogd, T. Wang, L. Brian, A. Allan	16
17:15-17:30	Breeding program by interspecific cross utilizing <i>A. rufa</i> native to Japan - <u>I. Kataoka</u> ¹ , H. Matsumoto ² , K. Beppu ¹ , K. Suezawa ³ , T. Fukuda ³ , R. Mizutani ³	17
17:30-17:45	Towards assembling the genome of a <i>Pseudomonas syringae actinidiae</i> (Psa) Biovar 3 tolerant <i>Actinidia chinensis</i> diploid male parent - <u>J. Tahir</u> ¹ , S. Gardiner ¹ , E. Hilario ² , C. Kirk ¹ , I. Liachko ³ , R. Crowhurst ² , D. Chagné ¹ , C. Deng ² , S. Sullivan ³	18

17:45-18:15	DEBATE	
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20:00 – 23:00 Gala dinner – Social Program including folklore and “Fado”

Departure from hotels at 19:30

Room “Loureiro”

Session 3- Crop Physiology and Biochemistry. Chair C. Fullerton

14:30-14:45	Kiwifruit: a unique carbohydrate metabolism - <u>H. Boldingh</u> ¹ , S. Nardozza ² , N. Gould ³ , P. Kashuba ⁴ , K. Boyd-Wilson ⁵ , A. Richardson ⁴	19
14:45-15:00	Effects of the manipulation of carbohydrate supply on fruit dry matter and colour development in a block-red <i>Actinidia chinensis</i> genotype - <u>A. Richardson</u> ¹ , S. Nardozza ² , H. Boldingh ³ , P. Kashuba ⁴ , L. McCaughan ⁴ , M. Philippe ² , M. Wohlers ² , T. McGhie ⁵ , M. Currie ² , M. Montefiori ²	20
15:00-15:15	From lumpy to mealy - the importance of kiwifruit texture in new cultivar development - <u>R. Schroeder</u> ¹ , R. Rebstock ¹ , R. Prakash ¹ , M. Beresford ¹ , T. Harris-Virgin ² , P. Sutherland ¹ , H. Tiffin ³ , D. Brummel ³ , I. Hallet ¹	21
15:15-15:30	Evaluating the effective pollination period of <i>Actinidia chinensis</i> 'AU Golden Sunshine' and A. deliciosa 'AU Fitzgerald' - <u>J. Spiers</u> , A. Brantley, A. Thompson, R. Kessier, A. Wright, E. Coneva	22
15:30-15:45	Kiwifruit reserves: balancing vine growth and fruit production - <u>A. Richardson</u> ¹ , H. Boldingh ² , P. Kashuba ¹ , S. Nardozza ³ , D. Greer ⁴	23
15:45-16:00	Mineral-based modulation of PGR pools in Kiwifruit improves production and yield metrics over cytokinin oxidase inhibitors - <u>R. Woodward</u>	24
16:00-16:30	Coffee Break & Posters Exhibition at “Room Alvarinho” & “Room Moscatel”	
Session 3- Crop Physiology and Biochemistry. Chair A. Richardson		
16:30-16:45	Regulation of kiwifruit softening by differential cell wall modifications - <u>C. Fullerton</u> ¹ , R. Prakash ² , I. Hallet ² , R. Schaffer ² , R. Schoroeder ²	25
16:45-17:00	Assessment of Drought Tolerance of Five Kiwifruit Species under Tissue Culture Condition - <u>Z. Yunpeng</u> , F. Jinbao, C. Jinyong, Q. Xiujuan, S. Leiming, L. Miaomiao	26
17:00-17:15	Isolation and identification of an allelopathic substance in kiwifruit leaves - <u>S. Okada</u> , A. Iwasaki, I. Kataoka, K. Suenaga, H. Kato-Noguchi	27
17:15-17:30	Are cell structure and composition linked to perception of taste in kiwifruit? - A. White, I. Hallet, D. Hunter, K. Marsh, C. Clark, J. Johnston, R. Harker	28
17:30-17:45	Characteristics and assessment of sugar and acid composition of kiwifruit (<i>Actinidia</i>) germplasm. <u>Q. Zhang</u> , X Liu, X. Yao, C. Zhong, H. Huang	29
17:45-18:15	DEBATE	

20:00 – 23:00 Gala dinner – Social Program including folklore and “Fado”

Departure from hotels at 19:30

FRIDAY 8th September

Room “Fernão Pires”

Session 4- Psa & Plant Protection. Chair F. Spinelli

9:00-9:30	Plenary Aspects still to solve for the management of kiwifruit bacterial canker caused by <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> biovar 3 - <u>M. Scortichini</u>	30
9:30-9:45	Actinidia- <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> interaction: plant differentially expressed transcripts during the infection - <u>G. Tacconi</u> ¹ , V. Michelotti ¹ , G. Buriani ² , A. Lamontanara ¹ , L. Orru ¹ , A. Cellini ² , I. Donati ² , J. Vanneste ³ , L. Cattivelli ¹ , F. Spinelli ²	31
9:45-10:00	An interactive model to evaluate the impact of an insecticide application on a pest population - <u>D. Cormier</u> ¹ , G. Chouinard ¹ , F. Pelletier ¹ , F. Vanoosthuyse ¹ , R. Joannin ²	32
10:00-10:15	Characterization of <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> genetic diversity in Portugal - <u>E. García</u> ² , D. Figueira ¹ , A. Veríssimo ¹ , J. Costa ²	33
10:15-10:30	Comparison of genome features in PSA (<i>Pseudomonas syringae</i> pv. <i>actinidiae</i>) from New Zealand, Korea, China and Japan - G. Taiaroa ¹ , J. H 1. A. Mazzaglia ² , G.M. Balestra ² , <u>M. Butler</u> ¹ , R. Poulter ¹	34
10:30-10:45	Evolution of PSA (<i>Pseudomonas syringae</i> pv. <i>actinidiae</i>) in New Zealand - <u>R. Poulter</u> , M. Black, I. Lamont, M. Butler, G. Taiaroa	35
10:45-11:00	Exploring Actinidia spp. defence mechanisms against <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> strains with distinct virulence - <u>SMP Carvalho</u> ¹ , M. Nunes da Silva ¹ , A. Mazzaglia ² , G. Balestra ² , M. Vasconcelos ³	36
11:00-11:30	Coffee Break & Posters at Exhibition Room “Room Alvarinho” & “Room Moscatel”	
Session 4- Psa & Plant Protection. Chair M. Scortichini		
11:30-11-45	Hypothesis generation of potential risk factors for severe kiwifruit bacterial canker disease in New Zealand ‘Hayward’ kiwifruit orchards - <u>K. Froud</u> ¹ , R. Beresford ² , N. Cogger ³	37
11:45-12:00	Identification and characterization of resistance to <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> (Psa) in kiwifruit ' A novel approach - <u>C. Brendolise</u> ¹ , M. Montefiori ¹ , R. Storey ² , N. Peeters ³ , K. Sohn ⁴ , E. Rikkerink ¹	38
12:00-12:15	Is <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> (Psa) present in wild populations of Actinidia in China? - <u>Q. Zhuang</u> ¹ , MA Manning ² , M. Li ¹ , C. Cheng ²	39
12:15-12:30	Transcriptional profiling of kiwifruit defence responses to bacterial canker and the role of elicitors, cultivars, tissue type and pathovars. JL Vanneste, K Wurms, T. Reglinski, AA Chee, A Hardaker, J Taylor, J Yu, D Cornish, D Jensen, J Cooney.	40
12:30-13:30	POSTERS EXHIBITION	
12:45-13:30	ISHS BUSINESS MEETING	

13:30 – 14:30 Lunch and poster exhibition

Room “Loureiro”

Session 5- Cultural Management. Chair F. Debersaques

9:45-10:00	Biostimulants assessment to promote budbreak in kiwi (<i>Actinidia deliciosa</i> cv. Hayward) - <u>C. Oliveira</u> ¹ , D. Tavares ² , S. Almeida ³	49
10:00-10:15	Bumble bee and honey bee interactive interaction improve pollination in kiwifruit - <u>G. Sapir</u> , Y. Greenblat	50
10:15-10:30	Pollen donor effects on the expression of red flesh colour in kiwifruit - <u>C. Cheng</u> ¹ , A. Seal ² , T. McGhie ³ , A. Blackmore ⁴ , P. Jaksons ⁵ , P. McAtee ⁶	51
10:30-10:45	Entomovector technology in kiwifruit pollination – <u>M.I. Pozo Romero</u> ¹ , J. Vandeville ² , V. Mommaerts ¹ , C. Kay ³ , F. Wackers ¹	52
10:45-11:00	Modern approaches of new kiwifruit plantation in Turkey - <u>A. Atak</u>	53
11:00-11:30	Coffee Break & Posters at Exhibition Room “Room Alvarinho” & “Room Moscatel”	
Session 5- Cultural Management. Chair C. Oliveira		
11:30-11:45	Mineral status of kiwiberry - <u>J. Decorte</u> ¹ , F. Debersaques ²	54
11:45-12:00	Effects of farming practices on earthworms communities in kiwifruit (<i>Actinidia deliciosa</i> cv. `Hayward`) orchards - <u>J. Castro</u> , E. Barreal, M.J.I. Briones, P.P. Gallego	55
12:00-12:15	Girdling kiwifruit vines for commercial advantage: opportunities and risks - <u>M. Currie</u> ¹ , K. Patterson ¹ , P Blattman ² , B Snelgar ²	56
12:15-12:30	Optimising vine management to increase yields and improve quality of SunGold (<i>Actinidia chinensis</i> `Zesy002`) kiwifruit - G. Thorp ¹ , <u>A. Barnett</u> ² , M. Blattmann ² , D. Hedderley ³ , R. Mayston ⁴	57
12:30-12:45	Skin topography changes during development of G3 kiwifruit - <u>L. Lai</u> ¹ , J. Heyes ¹ , D. Bailey ² , S. Gwanpua ¹ , A. East ¹	58
12:45-13:30	DEBATE & POSTER EXHIBITION	

13:00 – 14:30 Lunch and poster exhibition

Room “Fernão Pires”

14:30-15:00	Plenary New cultivars: Physiological challenges to commercial success - <u>J. Burdon</u>	59
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Session 4- Psa & Plant Protection. Chair J. Vanneste

15:00-15:15	Molecular signalling in <i>Pseudomonas syringae</i> pv <i>actinidiae</i> - <u>G. Buriani</u> ¹ , I. Donati ¹ , A. Cellini ¹ , L. Fiorentini ² , J. Vanneste ³ , F. Spinelli ¹	41
15:15-15:30	<i>Pseudomonas syringae</i> diversity and population structure in Kiwifruit orchards - <u>C. Lacroix</u> , B. Borschinger, L. Parisi, O. Berge, C. Chandeysson, C. Guibaud, JF Bourgeay, C. Morris	42
15:30-15:45	<i>Pseudomonas syringae</i> pv. <i>actinidiae</i> biovar 3 in actinidia deliciosa orchards in the Entre Douro e Minho region (Northwest Portugal) - <u>L. Moura</u> ¹ , E. Garcia ¹ , O. Aguín ² , A. Ares ² , A. Abelleira ² , P. Mansilla ²	43
15:45-16:00	The status of <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> (Psa) in New Zealand kiwifruit breeding programme in relation to ploidy level - <u>A. Saei</u> ¹ , K.	44

	Hoeata ² , A. Krebs ¹ , P. Sutton ¹ , L. Gea ²	
16:00-16:30	Coffee Break & Posters at Exhibition Room “Room Alvarinho” & “Room Moscatel”	
Session 4- Psa & Plant Protection. Chair C. Lacroix		
16:30-16:45	Study of biovar-specific determinants and role of communication with host plant in <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> virulence - <u>A. Polverari</u> ¹ , A. Regaiolo ¹ , M.R. Puttilli ¹ , T. Colombo ¹ , C. Foresti ¹ , V. Venturi ² , G De Vescovi ² , R. Heermann ³ , E. Vandelle ¹	45
16:45-17:00	Resistance to copper in <i>Pseudomonas syringae</i> pv. <i>actinidiae</i> (Psa) does not always result in lack of control of bacterial canker of kiwifruit using copper - <u>J. Vanneste</u> ¹ , J. Yu ² , D. Cornish ² , J. Oldham ² , T. Hong ²	46
17:00-17:15	Impact of plastic covers on the progression of <i>P. syringae</i> pv <i>actinidiae</i> and fruit productivity in golden kiwifruit orchard - J. Saavedra Bruna, C. Abud Cabrera, <u>R. Cuevas Aldunate</u> , P. González Ramirez	47
17:15-17:30	Screening of microbial biocoenosis of <i>Actinidia chinensis</i> for the isolation of candidate biological control agents against <i>Pseudomonas syringae</i> pv. <i>Actinidiae</i> - I. Donati, G. Buriani, N Raule, <u>F. Spinelli</u>	48
17:30-18:30	DEBATE	

18:30-19:00 Closing ceremony

Room “Loureiro”

Session 6- Postharvest and Fruit Quality. Chair C. Xiloyannis

15:15-15:30	Evaluating new kiwifruit cultivars for storage disorders and softening - <u>S. Olsson</u> ¹ , M. Currie ² , J. Ansoorge ¹ , P. Martin ¹ , J. Meikle ¹ , J. Feng ²	60
15:30-15:45	Quality of green (cv ‘Hayward’) and yellow (cv ‘Soreli’) kiwifruit during cold storage at 0°C in normal atmosphere and with gaseous ozone - V. Goffi, M. Modesti, R. Forniti, <u>R. Botondi</u>	61
15:45-16:00	Softening rates during storage of ‘Hayward’ kiwifruit: Effects of ethylene inhibition and preharvest and postharvest calcium applications - <u>D. Almeida</u>	62
16:00-16:30	Coffee Break & Posters Exhibition at “Room Alvarinho” & “Room Moscatel”	
Session 6- Postharvest and Fruit Quality. Chair D. Almeida		
16:30-16:45	Morphological and molecular characterization of pathogens causing post-harvest rots of kiwifruit (<i>Actinidia chinensis</i>) in China - <u>L. Li</u> , H. Pan, M. Chen, C. Zhong	63
16:45-17:00	Influence of growing environment on fruit mineral composition and storage in kiwifruit - <u>C. Xiloyannis</u> , G. Montanaro, B. Dichio, A. Mininni	64
17:00-17:15	Harvest time and storage of ‘Soreli’ kiwifruit (<i>Actinidia chinensis</i> Pl.) - <u>R. Testolin</u> ¹ , G. Ciprinani ² , R. Messina ² , G. Vizzotto ²	65
17:15-17:30	Does consumer scale near infrared (NIR) spectroscopy provide solutions to kiwifruit industry problems? - <u>M. Li</u> , C. Huang, P. Li, A. East	66
17:30-17:45	A survey of the application of visible/near infrared reflectance spectroscopy as a non-destructive tool for internal quality assessment in kiwifruit – <u>R. Guerra</u> ¹ , A.C. Guerreiro ^{1,2,3} , C.L. Gago ^{1,2,3} , A.I. Vieira ^{1,2} , A.	67

	Brázio ¹ , A. Cavaco ¹ , Th. Panagopoulos ⁴ , F. Veloso ⁵ , M. D. Antunes ^{1,2}	
17:45-18:00	What happens in a full scale kiwifruit curing stack? - <u>A. East</u> ¹ , L. Doleh ² , P. Jeffery ³ , N. Tapia ³ , S. Gwanpua ³ , A. Woolf ²	68
18:00-18:30	DEBATE	

18:30-19:00 Closing Ceremony (Room “Fernão Pires”)

SATURDAY 9th September

8:30 – 19:30 Technical visit – Kiwifruit orchards in Minho and Galicia

SUNDAY 10th September

8:30 - 19:00 **Post-symposium tour.**

Available a post-symposium tour “Porto-Régua by train and back through river Douro by boat” with lunch on board at a special price 70 euros.

Reservations shall be done directly with the travel agency, mentioning that you are from the “IX International Kiwifruit Symposium”, till 5th September, through the site:

<http://www.portodouro.com/pt/cruzeiro/cruzeiro-porto-regua-porto-ba-sabados-e-domingos>