

SCIENTIFIC PROGRAM

Candidates for ISHS Young Minds Award



SESSION 1. Current Status of Persimmon Industry

Oral Presentation

Panel Discussion: Sep 23 17:00-18:00 (JST)

Chair: Edoardo Giordani Co-chair: Akihiko Sato

S1-O-1	Recent persimmon cultivar composition and breeding activities in Japan A. Sato, N. Onoue
S1-O-2	The evolution of persimmon cultivation in Italy E. Giordani
S1-O-3	Persimmon growing in Turkey T. Yesiloglu, B. Cimen
S1-O-4	Persimmon production in Spain M. L. Badenes
S1-O-5	Report on the Australian and New Zealand persimmon industries T. Khurshid
S1-O-6	Persimmon industry in China Z. Luo, Q. Zhang, L. Xu, D. Guo


SESSION 2. Breeding and Genetics

Oral Presentation

Panel Discussion: Sep 23 18:00-19:00 (JST)

Chair: Maria Luisa Badenes Co-chair: Keizo Yonemori

S2-O-1	Contribution of biotechnology to persimmon breeding M. L. Badenes
S2-O-2	Mineral content in fruits of persimmons grown in Afghanistan E. Giordani, L. Andrenelli, Z. Hejazi
S2-O-3	Marker-assisted selection of pollination-constant non-astringent offspring by crude sample PCR in persimmon N. Onoue, A. Kono, A. Sato, R. Matsuzaki, A. Azuma, T. Shimizu, T. Saito
S2-O-4	Observation and description of morphological variations for flowers and fruits in persimmon C. Guan, Y. An, Y. Li, Q. Che, Y. Yang, R. Wang
S2-O-5	Physiological and genetic characterization of 'Totsutanenashi', a nonaploid persimmon mutant bearing extremely small size fruit S. Nishiyama, C. Iwami, S. Wang, C. Tam, R. Tao

S2-O-6	Assembly and comparative analysis of the complete mitochondrial genome of <i>Diospyros oleifera</i> B. Gong, Y. Xu
S2-O-7	A genetically additive model explaining the coincidence of mid-parent and mean value of offspring from a cross in autohexaploid M. Yamada, K. Nashima
S2-O-8 	Characteristics of an early maturing line derived from 'Tone-Wase' persimmon in Nara T. Tsujimoto, Y. Hamaguchi, K. Hirono, Y. Hayashi, T. Hagihara, T. Nagaoka
Poster Presentation	
S2-P-1	DNA sequence diversity of the astringency-controlling locus in <i>Diospyros kaki</i> R. Tao, A. Kuramoto, S. Nishiyama
S2-P-2	Breeding rootstocks for Mediterranean environmental conditions F. Gil-Muñoz, M. Blasco, M. L. Badenes
S2-P-3	Towards functional characterization of <i>OGL</i> , the male determinant gene in <i>Diospyros</i> A. Ishii, R. Makimoto, S. Nishiyama, R. Tao
S2-P-4	Evaluation of the persimmon germplasms resources of Henan province X. Ding, S. Yao, Q. Deng, X. Cheng
S2-P-5	Use of the staminate flowers of 'Saijo' persimmon T. Esumi, N. Yoshimoto, Y. Kosugi, A. Watanabe, H. Itamura

SESSION 3. Crop Management	
Oral Presentation	
Panel Discussion: Sep 23 19:00-20:00 (JST)	
Chair: Tahir Khurshid Co-chair: Takuya Tetsumura	
S3-O-1	Opportunities and challenges for the Australian persimmon industry T. Khurshid
S3-O-2	The effect of cultivation conditions and electrolyzed hydrogen water treatment on the blackening of persimmon 'Taishu' fruit H. Itamura, K. Nomura, S. Kabayama, M. Amano, Y. Hamauzu, K. Nakai, I. Matsushita, K. Sawada, T. Esumi, A. Nakatsuka
S3-O-3 	Effects of ambient, cultivar and wrapping materials on grafting success of persimmons (<i>Diospyros kaki</i> Thunb.) Z. Hejazi, M. I. Sadat, A. Hamid, A. S. Dawlatzai, T. Tetsumura
S3-O-4	Flower bud differentiation and physiological fruit drop in 'Soshu' persimmon Y. Yong, R. Zhang, S. Wang, F. Xue, C. Guan
S3-O-5	The influence of the planting scheme on the development and productivity of oriental persimmon (<i>Diospyros kaki</i> Thunb.) in the humid subtropics of Russia O. Belous, M. Omarov, Z. Omarova

S3-O-6	Ethylene production trend in young 'Fuyu' persimmon fruit during attachment to or detachment from the tree N. Sun, H. Itamura
S3-O-7	Utilization of liquid pig manure as an alternative fertilizer in persimmon orchard S. Choi, E. Kim, J. Son, Y. Park, G. Ahn
Poster Presentation	
S3-P-1	Persimmon maturity index for chronological analysis using AI object detection algorithm A. Yamamoto, M. Shinoda, T. Kusudo, M. Kimura, Y. Matsuno
S3-P-2	Persimmon pruning method for harvesting leaves for Kakinohasushi M. Hojo, K. Hirono, T. Nagaoka, K. Ueki, M. Wakisaka
S3-P-3	Effect of temperature on maturing and harvesting date of 'Tone-Wase' cultivated in plastic house conditions T. Nakamura, G. Takamatsu, K. Ichikawa, T. Sugimura, T. Naka
S3-P-4	Investigation of plant nutrients during vegetation period of some persimmon varieties under Mediterranean region of Turkey B. Cimen, T. Yesiloglu, M. Incesu, B. Yilmaz, M. U. Kamiloglu
S3-P-5	Characteristics of vegetative growth and fruit of progenies obtained from crosses between octoploid persimmon 'Hasshu' and hexaploid persimmons H. Yakushiji, R. Nishimura, A. Yamasaki
S3-P-6	Rooting treatment with 1-Naphthaleneacetic acid to softwood cuttings of dwarfing rootstocks for persimmon T. Tetsumura, Y. Sei, H. Ogata, S. Ishimura, C. Honsho, R. Tanaka, K. Matsumoto
S3-P-7	Effect of light quality on coloration and carotenoid accumulation in persimmon 'Saijo' (<i>Diospyros kaki</i>) T. Shibuya, H. Yokoshi
S3-P-8	Rooting effects of NAA treatment on cuttings of persimmon dwarfing rootstock 'Hourakudai' and growing conditions of grafted scions R. Nishimura, A. Yamasaki, H. Sugiura, H. Yakushiji
S3-P-9	Early tree growth and high fruit productivity of Japanese persimmon 'Saijo' grafted on dwarfing rootstock of 'Hourakudai' persimmon K. Ohata, T. Kurahashi
S3-P-10	Effect of shading and girdling on physiological fruit drop of Japanese persimmon 'Akiou' C. Takemura, H. Asakuma
S3-P-11	Joint V-shaped trellis for early high yield and labor savings of Japanese persimmon H. Asakuma, C. Takemura
S3-P-12	Effect of vigorous vegetative shoot cutback on development of female flower bearing shoot at next year in Japanese persimmon 'Taishu' A. Kitajima, M. Yasuda, T. Kurosawa, K. Kusumi, T. Konishi, R. Nakano, T. Nakazaki

SESSION 4. Biotechnology and Physiology

Oral Presentation


Panel Discussion: Sep 24 17:00-19:00 (JST)

Chair: Qinglin Zhang Co-chair: Ryutaro Tao and Chitose Honsho

S4-O-1	Advance on deastringency mechanism in Chinese PCNA persimmon Q. Zhang, W. Chen, L. Xu, D. Guo, Z. Luo
S4-O-2	Effects of Abz-E3M, abscisic acid 8'-hydroxylase inhibitor, and PANMe, abscisic acid antagonist, on bud dormancy release of <i>Diospyros spp.</i> H. Yamane, Y. Osako, H. Iwasa. M. Gao-Takai, J. Takeuchi, Y. Todoroki, R. Tao
S4-O-3	Anatomical and histochemical study of abscission process in Japanese persimmon fruit at young fruit stage T. Kobayashi, N. Chino, T. Tabuchi
S4-O-4	The dwarfing mechanism of <i>Diospyros kaki</i> 'Nantongxiaofangshi' as an intermediated stock X. Yu, Y. Dong, S. Qu
S4-O-5	Accumulation of smRNAs on <i>OGI</i> and <i>MeGI</i> genomic sequences in female and male floral buds of monoecious <i>Diospyros oleifera</i> J. Fu, P. Sun, H. Li, Y. Suo, L. Wang, Y. Mai, W. Han, S. Diao, Y. Wang, L. Ye, J. Yuan
S4-O-6	Explainable deep learning produces artificial professional eyes on fruit internal traits in persimmon T. Akagi, K. Masuda, M. Suzuki, K. Takeshita, M. Sugiura, T. Suzuki, T. Niikawa, S. Uchida
S4-O-7 	Reinvention of hermaphroditism triggered by activation of <i>RADIALIS-like</i> gene in hexaploid persimmon K. Masuda, Y. Ikeda, T. Matsuura, T. Kawakatsu, R. Tao, Y. Kubo, K. Ushijima, T. Akagi
S4-O-8	Screening and characterization of sex differentiation-related long non-coding RNAs in monoecious <i>Diospyros oleifera</i> P. Sun, H. Li, L. Wang, Y. Mai, W. Han, S. Diao, Y. Suo, Y. Wang, L. Ye, J. Yuan, J. Fu
S4-O-9 	Distribution of tannin cells in persimmon tree and the basic chemical composition of tannins in calluses derived from persimmon leaflets R. Yamamoto, R. Genda, K. Fukuhara, T. Ogata, K. Yonemori
S4-O-10	Anatomical and histochemical studies of separation process on the juncture between calyx and fruit tissues on Japanese persimmon fruits N. Chino, T. Kobayashi, T. Tabuchi
S4-O-11	Ripening process study in persimmon (<i>D. kaki</i>) fruits on tree focused on ethylene M. Blasco, F. Gil-Muñoz, M. L. Badenes
S4-O-12 	Researches on mechanism of fruit top rot occurrence in persimmon Y. Xu, B. Gong

Poster Presentation

S4-P-1	Radioactive cesium contamination in persimmon tree after Fukushima Daiichi nuclear power plant accident -The difference of radioactive cesium concentration of fruit on each branch in the same tree- S. Horii, H. Sekizawa, M. Hachinohe, S. Kusaba
S4-P-2	Changes in cytokinin content during early fruit development in two persimmon cultivars, 'Izu' and 'Saefuji' A. Itai, C. Mizoguchi
S4-P-3	Effect of foliar and trunk application of selenium on selenium enrichment and fruit quality in persimmon C. Guan, Y. Yan, Z. Wang, Y. Yang
S4-P-4	Preliminary study on the dwarfing modulation of <i>Diospyros kaki</i> 'Nantongxiaofangshi' X. Yu, Y. Dong, X. Ye, S. Qu
S4-P-5	Characterization of DkMATE7 in transporting proanthocyanidins precursors in Chinese PCNA persimmon X. Wu, Y. Liu, L. Xu, Q. Zhang, D. Guo, Z. Luo
S4-P-6	Allele-aware chromosome-level genome assembly of tetraploid persimmon (<i>Diospyros rhombifolia</i>) W. Chen, Q. Zheng, L. Xu, D. Guo, Q. Zhang, Z. Luo
S4-P-7 	Characterization of premonitory symptoms for rapid over-softening in persimmon fruit, with deep learning M. Suzuki, K. Masuda, K. Takeshita, H. Asakuma, M. Sugiura, T. Suzuki, T. Niikawa, Y. Kubo, K. Ushijima, S. Uchida, T. Akagi
S4-P-8	Characterization of proanthocyanidin precursor transport related gene <i>DkGSTF1</i> in persimmon J. Deng, L. Xu, D. Guo, Q. Zhang, Z. Luo
S4-P-9 	Towards comprehensive phenotypic evaluation of shape diversity in persimmon fruit A. Kusumi, Y. Osako, R. Nakano, S. Nishiyama, R. Tao
S4-P-10 	Candidate gene analysis for the <i>ASTRINGENCY</i> locus controlling fruit astringency in <i>Diospyros kaki</i> using mRNA-seq and small RNA-seq data Y. Fujiwara, S. Nishiyama, N. Onoue, R. Matsuzaki, K. Yonemori, R. Tao
S4-P-11	Evaluation of calyx senescence during the ripening of 'Rojo Brillante' persimmon by chlorophyll fluorescence imaging A. F. Najafabadi, C. Besada, M. A. Calatayud, R. Gil, A. Salvador
S4-P-12	Morphological diversity in persimmon fruits (<i>Diospyros kaki</i>) assessed with conventional descriptors and Tomato Analyzer software M. Vendrell, M. Blasco, F. Gil-Muñoz, M. L. Badenes



S4-P-13	Towards understanding gallic acid formation in persimmon fruits; characterization of the dehydroquinase dehydratase/shikimate dehydrogenases (DHD/SDHs) A. Katayama-Ikegami, T. Sakamoto, T. Katayama, Y. Sugiyama, M. Gao-Takai, T. Esumi
S4-P-14 	A lightweight persimmon detection method based on convolutional neural network Y. Geng, Y. Lv

SESSION 5. Diseases and Pests Management

Oral Presentation

Panel Discussion: Sep 25 17:00-18:00 (JST)

Chair: Takao Ito Co-chair: Francisco J. Beitia

S5-O-1	Viruses and viroids detected by next-generation sequencing analysis of persimmons in Japan T. Ito
S5-O-2 	Chemical compositions and <i>in vitro</i> antifungal activities of essential oils obtained from different <i>Origanum</i> species against postharvest gray mold rot of persimmon fruit M. Kara, M. Türkmen, S. Soylu
S5-O-3	Phytoseiid mite assemblages and <i>Dialeurodes citri</i> (Hemiptera: Aleyrodidae) infestations in persimmon orchards under different soil managements M. Cubian, F. Beitia, S. Weigand, C. Monzó
S5-O-4	A proposed new virus in the genus <i>Marafivirus</i> detected from Japanese persimmon 'Kumemaru' and its biological application N. Fujita, Y. Hagiwara-Komoda, K. Masuda, T. Akagi
Poster Presentation	
S5-P-1 	<i>In vitro</i> antagonistic potential of bacterial isolates from persimmon fruit against postharvest gray mold disease agent, <i>Botrytis cinerea</i> M. Kara, S. Soylu, M. Atay, E. M. Soylu, S. Kurt
S5-P-2	Biological control of mealybugs in persimmon orchards in Spain A. Plata, F. Beitia, A. Tena
S5-P-3	Gene annotation of the causal agent of persimmon anthracnose <i>Colletotrichum horii</i> from China J. Wang, C. Ai, R. Gao, X. Yu
S5-P-4	Screening of fungicides to pathogens of anthracnose on <i>Diospyros kaki</i> 'Fupingjianshi' Q. Deng, X. Ding, S. Yao, X. Cheng
S5-P-5	The symptoms, main influence factors and integrated control technology of persimmon anthracnose S. Yao, X. Ding, L. Cui, Q. Deng, Z. Xu, X. Cheng

SESSION 6. Perspectives from the Basic to the Field (NARO SESSION)

Oral Presentation

Panel Discussion: Sep 25 18:00-19:00 (JST)

Chair: Hiroshi Yakushiji Co-chair: Noriyuki Onoue

S6-O-1	Validation of persimmon breeding strategy at the Institute of Fruit Tree and Tea Science, NARO, Japan T. Saito, N. Onoue, R. Matsuzaki, T. Shimizu, A. Azuma, A. Sato
S6-O-2	Long-term evaluation of phenology and fruit quality of 'Fuyu' persimmon under climate change H. Sugiura, T. Saito
S6-O-3	Forecasting insecticide spraying periods for the first-generation of Japanese mealybug using sex pheromone trap catches of the overwintering generation of adult males T. Arai

SESSION 7. Postharvest Technology

Oral Presentation



Panel Discussion: Sep 26 17:00-17:30 (JST)

Chair: Xue-ren Yin Co-chair: Akihiro Itai

S7-O-1	Molecular basis for persimmon fruit postharvest deastringency and softening X. Yin, W. Wu, Q. Zhu, M. Wang
S7-O-2	Non-destructive evaluation of fruit firmness and acoustic evaluation of crispness of persimmon N. Sakurai, T. Suzuki, T. Niikawa, K. Nakano, S. Kohyama
S7-O-3	Transcriptome analysis in the pulp of 'Saijo' persimmon during storage at low temperature A. Nakatsuka, T. Esumi, Y. Mizukami, K. Watanabe, H. Itamura

Poster Presentation

S7-P-1	Influence of ethanol patch attachment position and storage orientation on astringency removal and storability in 'Hiratanenashi' persimmon (<i>Diospyros kaki</i> Thunb.) fruits S. Taira, A. Sugawara, D. Matsumoto
S7-P-2	Effect of storage temperature on development of chilling injury and its transcriptome analysis in 'Fuyu' persimmon fruit with or without 1-MCP treatment T. Furuta, O. W. Mitalo, T. Otsuki, R. Okada, K. Ohashi, K. Masuda, T. Akagi, K. Ushijima, R. Nakano, Y. Kubo
S7-P-3	Development of novel HPMC edible coatings containing antifungal GRAS salts to control <i>Alternaria</i> black spot and preserve fruit quality of cold-stored 'Rojo Brillante' persimmons A. Fernández-Catalán, M. Argente-Sanchis, L. Palou, M. B. Perez-Gago

S7-P-4	Postharvest characterization of 14 non-astringent persimmon cultivars grown under Mediterranean conditions A. F. Najafabadi, C. Besada, R. Gil, A. Salvador
S7-P-5 	Natural drying of 'Rojo Brillante' persimmon N. Q. Vilhena, E. Llorca, R. Gil, G. Moraga, A. Salvador
S7-P-6 	Preharvest application of 1-MCP on 'Rojo Brillante' persimmon fruit treated with ethephon N. Q. Vilhena, R. Gil, P. Fernandez-Serrano, P. Navarro, A. Salvador
S7-P-7	Long-term storage of 'Taiten' persimmon fruits by on-tree ethanol-sticker treatment and modified atmosphere packaging A. Yamasaki, H. Iwamoto, R. Yagi, H. Yakushiji
S7-P-8	Quick removal of persimmon astringency by medium-high hydrostatic pressure treatment M. Sugiura, T. Suzuki, T. Niikawa, H. Ogino, T. Imaizumi

SESSION 8. Utilization


Oral Presentation

Panel Discussion: Sep 26 17:30-18:00 (JST)

Chair: Hiroyuki Itamura and Mun-gyeong Cho Co-chair: Tomoya Esumi

S8-O-1	Persimmon utilization in South Korea <i>M. Cho</i>
S8-O-2	The utilization of inedible parts of persimmon: persimmon calyx for specific medicine of hiccups K. Takaura, A. Momoi, M. Hasuo, Y. Ishida, Y. Yamamoto, K. Tochimoto, K. Goto, H. Kakuto, D. Yamaoka, K. Takahashi, Y. Endo
S8-O-3	Analysis of triterpenes content in the peel of different persimmon cultivars Y. Lv, H. Ren, H. Cui
S8-O-4	Effects of soy milk and condensed milk on astringency removal, astringency recurrence, appearance, and syneresis in persimmon paste Y. Tsurunaga

Poster Presentation

S8-P-1 	Different behavior in column chromatography between two types of kaki-shibu made from immature fruits of PCNA 'Fuyu' and PCA 'Atago' A. Sonoda, T. Ogata, K. Iwamoto, S. Nishiyama, K. Yonemori
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