

Scientific Program of ICVF2015-Morioka, 7-12 June

Sunday, 7 June

17:30-20:00 Registration, poster hanging and welcome drink

Monday, 8 June

09:00-10:00 Registration and poster hanging

10:00-10:20 Meeting opening

10:20-11:00 Invited lecture

Occurrence and countermeasures of citrus greening in the sub-tropical islands of Japan
T. Iwanami (Apple Research Station, NIFTS, NARO)

11:00-11:30 Coffee break

11:30-12:30 Oral session 1 – Pome and Stone Fruit Viruses. Chair: *W. Jelkmann*

11:30-11:45 O-1: Viruses and viroids infecting apple tree (*Malus domestica* Bork) in Chile.

N. Fiore, P. Méndez, A.M. Pino, N. Quiroga, A. Zamorano

11:45-12:00 O-2: Results of survey, performed for the detection of *Apple chlorotic leaf spot virus* (ACLSV) in registered stone fruit-mother stock nurseries in Afghanistan.

S. Rehman, J. Ahmad, C. Rubies Autonell, C. Lanzoni, C. Ratti

12:00-12:15 O-3: Comparison of diagnostic techniques for the detection and differentiation of *Cherry leaf roll virus* strains for quarantine purpose.

S. Veerakone, J. Tang, B.S.M. Lebas, L.W. Liefting, Z. Perez-Egusquiza, S. von Barga, L. Ward

12:15-12:30 O-4: Development of polyvalent degenerate oligonucleotide based RT-PCR for detection of stone and pome fruit viruses belonging to the family Betaflexiviridae.

M.S. Noorani, V. Hallan, A. A. Zaidi, M.P. Sharma

12:30-12:45 O-5: Small RNA profiles of latent *Apple stem grooving virus* infection in apples.

M. Visser, H.J. Maree, D.J.G. Rees, J.T. Burger

12:45-13:00 O-6: Evaluation of Turkish hazelnut varieties' resistance against *Apple mosaic ilarvirus* (ApMV) on natural infection in Turkey.

K. DEĞİRMENÇİ, A.F. MORCA, A. GÖĞÜS, A. SEZER

13:00-14:00 Lunch

14:00-14:30 Invited lecture

Plant quarantine system for virus diseases of fruit crops in Japan.

I. Namba (Kobe Plant Protection Station Osaka sub-station)

14:30-15:45 Oral session 2 – Application of next-generation sequencing I (Apple).

Chair: *T. Candresse*

14:30-14:45 O-7: Simultaneous identification and molecular characterization of viruses associated with an apple tree.

M. Cao, L. Pu, M. Bateman, G. Kinard, C. Zhou, R. LI

14:45-15:00 O-8: Next generation sequencing analysis of mixed infection with latent viruses reveals new strains of *Betaflexiviridae*.

V. Jakovljevic, J. Blake, V. Benes W. Jelkmann

15:00-15:15 O-9: Search for the causal agent of apple rubbery wood disease: RNA-seq and wood structure analysis.

V. Jakovljevic, P. Otten, C. Berwarth, A. Krähmer, W. Jelkmann

15:15-15:30 O-10: Identification and characterization of a novel geminivirus with monopartite genome infecting apple trees.

P. Liang, B. Navarro, Z. Zhang, H. Wang, M. Lu, H. Xiao, Q. Wu, X. Zhou, F. Di Serio, S. Li

15:30-15:45 O-11: Isolation of *Apple chlorotic leaf spot virus* variants from a russet ring-diseased apple trees by *in vitro* transcription system and evaluation of their pathogenesis on fruits of apple.

R. Kishigami, H. Yaegashi, N. Yamagishi, T. Ito, N. Yoshikawa

15:45-16:15 Coffee break

16:15-17:15 Oral session 3 - Application of next-generation sequencing II (Stone fruits).

Chair: *R.R. Martin*

16:15-16:30 O-12: NGS-based full genome sequencing of Asian prunus viruses 1, 2, and 3.

A. Marais, C. Faure, T. Candresse

16:30-16:45 O-13: *Tepovirus* and *Prunavirus*: *Betaflexiviridae* genera with novel *Prunus*-infecting agents.

A. Marais, C. Faure, E. Mustafayev, M. Barone, D. Alioto, M. Navrátil, D. Šafářová, T. Candresse

16:45-17:00 O-14: The characterisation of Ilarviruses infecting *Prunus* species in Australia.

W. Kinoti, F. Constable, N. Nancarrow, B. Rodoni, K. Plummer

17:00-17:15 O-15: First Report of Little cherry virus 1 in Sweet Cherry trees in China.

J. Wang, D. Zhu, X. Zong, L. Zhang, Q. Liu

17:15-18:30 Oral session 4 - Application of next-generation sequencing III. (Small fruits and kiwifruit). Chair: *D. James*

17:15-17:30 O-16: Identification and molecular characterization of a novel monopartite geminivirus associated with mulberry mosaic dwarf disease.

Y. Ma, B. Navarro, Z. Zhang, M. Lu, X. Zhou, S. Chi, F. Di Serio, S. Li

17:30-17:45 O-17: A new virus isolated from wild raspberry exhibiting leaf curl symptoms.

A. Diaz-Lara, J. Dittrich, K. E. Keller, R.R. Martin

17:45-18:00 O-18: Discovery of two new viruses in *Vaccinium*.

T. Ho, J. Polashock, I.E. Tzanetakis

18:00-18:15 O-19: Discovery, characterization and detection of five new virus species in *Ribes*.

T. Ho, J. Postman, R.R. Martin, I.E. Tzanetakis

18:15-18:30 O-20: Viruses infecting kiwifruit plants grown in China revealed by deep sequencing analysis of small RNAs.

N. Hong, Z. K. Yang, Y. Z. Zheng, C. X. Zhu, Y. X. Wang, G. P. Wang

Tuesday, 9 June

Workshop – Good viruses useful for agriculture

09:00-9:30 Invited lecture

Mycoviruses in *Rosellinia necatrix*; features of potential virocontrol agents.

S. Kanematsu (Apple Research Station, NIFTS, NARO)

09:30-10:00 *Apple latent spherical virus* vectors: a tool for new plant breeding techniques.

N. Yoshikawa (Iwate University)

10:00-10:30 Coffee break

10:30-12:30 Poster session

10:30-11:30 odd number

11:30-12:30 even number

List of workshop posters

P-1: Promotion of flowering in apple and pear seedlings by *Apple latent spherical virus* (ALSV) vectors and elimination of ALSV from infected seedlings by heat treatment.

N. Yamagishi, N. Yoshikawa

P-2: Expression of a foreign gene and suppression of an endogenous gene in sweet cherry and grapevine by *Apple latent spherical virus* vector.

K. Maeda, K. Yagi, T. Momma, M. Kawasaki, N. Yamagishi, C. Li, N. Yoshikawa

P-3: Virus induced gene silencing of endogenous genes and expression of *Flowering locus T* gene in citrus plants by *Apple latent spherical virus* vector.

- K. Yagi, M. Itoh, N. Yamagishi, C. Li, N. Yoshikawa*
- P-4: Promotion of flowering in Japanese gentian by the infection of *Apple latent spherical virus* (ALSV) vectors expressing *Flowering locus T* genes.
R. Fekih, N. Yamagishi, N. Yoshikawa
- P-5: Apple latent spherical virus vector as vaccines for the prevention and treatment of plant virus diseases.
N. Yoshikawa, M. Kimura, N. Satoh, A. Taki, A. Tamura, N. Yamagishi, C. Li
- P-6: Presentation of epitope sequences from foreign viruses on the surface of *Apple latent spherical virus* vectors.
C. Li, N. Yoshikawa
- P-7: Expression of heterologous viral RNA silencing suppressors by *Apple latent spherical virus* (ALSV) vectors altered the pathogenesis and accumulation amount of ALSV in *Nicotiana benthamiana*.
C. Li, N. Yoshikawa

List of posters

- P-8: The sequence diversities and recombinations among apple stem pitting virus isolates.
L. Sun, Z. Li, P. Liu, X. Hao, Y. Wu Y
- P-9: Molecular variability and genome study of apple latent virus in Shaanxi, China.
H. Liu, P. Liu, X. Hao, L. Sun, Y. Wu
- P-10: Genome sequence and infectious vector construction of *Apple stem grooving virus*.
L. Zhao, H. Liu, X. Hao, L. Sun, Y. Wu
- P-11: Construction of full-length cDNA clones of *Apple chlorotic leaf spot virus* isolates.
L. Zhang, C. Berwarth, V. Jakovljevic, W. Jelkmann
- P-12: Molecular characterization of a novel variant of *Apple stem pitting virus*.
M.M. Zheng, N. Hong, G. P. Wang
- P-13: Apple necrotic mosaic virus (ApNMV), a new virus classified into genus *Ilarvirus*, found in apple trees affected by a mosaic disease.
H. Noda, N. Yamagishi, H. Yaegashi, M. Isogai, T. Ito, N. Yoshikawa
- P-14: Molecular screening of *Plum pox virus* in F1 and F2 Turkish apricot genotypes.
K. Çağlayan, M. Gazel, E. Tanriver, B.M. Asma, F. Moreau
- P-15: Experimental transmission of *Plum pox virus* (PPV)-T by using *Myzus persicae*, *Aphis gossypii* and *Hyalopterus pruni*.
S. Yalcin Ates, M. Gazel, C. Ulubas Serce, K. Caglayan
- P-16: Viruses infecting cherry and sour cherry in the Czech Republic.
J. Špak, J. Příbylová, J. Fránová, O. Lenz, I. Koloniuk, M. Navrátil, D. Šafářová, F. Paprštejn
- P-17: Genome analysis segregated Cherry rusty mottle group and Cherry twisted leaf associated viruses into four distinct clades and identified new viral genomes.
P. Kesanakurti, H. Rast, I. Boyes, W. Jelkmann, M. Rott
- P-18: Multiple virus infection in cherry trees affected by a bud blight disease.
N. Yoshikawa, S. Oyamada, H. Yaegashi, S. Goto, N. Yamagishi, M. Isogai, T. Ito

- P-19: Cherry virus B, a new virus classified into genus *Foveavirus* found in a sweet cherry tree.
S. Oyamada, H. Yaegashi, S. Goto, N. Yamagishi, M. Isogai, T. Ito, N. Yoshikawa
- P-20: Exploring the host range of *European mountain ash ringspot-associated virus* and its distribution in the Czech Republic.
L. Grimová, P. Ryšánek, M. Konrady
- P-21: Preliminary studies on the viruses infecting fig (*Ficus carica* L.) in Greece.
A. Dimitriadou, N.I. Katis, V.I. Maliogka
- P-22: A novel closterovirus from persimmon, and RT-PCR detection using mixed universal primers for closteroviruses.
T. Ito, K. Suzaki, A. Sato
- P-23: The presence of *Blueberry mosaic associated virus* in *Vaccinium* spp. in Turkey.
M. Gazel, E. Elçi, H. Çelik, K. Gündüz, I. Mavric Plesko, M. Virscek Marn, K. Çağlayan
- P-24: RNA2 Sequences of *Raspberry Bushy Dwarf Virus* (RBDV) Isolates from *Rubus* spp. in Turkey.
E. ELÇİ, M. GAZEL, I.M. Pleško, M.V. Marn, K. ÇAĞLAYAN
- P-25: Raspberry leaf blotch virus from red raspberry in Montenegro.
I. Mavric Plesko, J. Zindovic, M. Virscek Marn, S. MacFarlane, S. Winter
- P-26: Overview of red raspberry viruses in Montenegro.
I. Mavric Plesko, J. Zindovic, M. Virscek Marn
- P-27: Blueberry mosaic associated virus detected in a highbush blueberry tree with mosaic symptoms in Japan.
M. Isogai, K. Suzuki, S. Yashima, M. Watanabe, N. Yoshikawa
- P-28: Development of a *Raspberry bushy dwarf virus*-based plant virus vector for virus-induced gene silencing.
T. Shimura, T. Yoshida, N. Yoshikawa, M. Isogai
- P-29: Phytoplasma infection risk in apple organic orchards.
D. Šafářová, M. Starý, P. Válová, M. Opatíková, L. Bílková, M. Navrátil
- P-30: Intrapopulation and interpopulation genetic variability of stolbur phytoplasma (*Ca. Phytoplasma solani*) infecting various host plants and vectors.
D. Šafářová, M. Martinusíková, P. Válová, M. Navrátil
- P-31: Functional changes of leaves induced by phytoplasma infection in field grown sweet cherry.
Y. Tan, H.-R. Wei, J.-W. Wang, Q.-Z. Liu
- P-32: The effect of apple chat fruit infection on fruit size and yield of apple cultivars Elstar and Jonagold.
B. Geensen, F.M. Maas, E.T.M. Meekes, J.A.M. Konings, G.P. Jongedijk
- P-33: Identification of a phytoplasma associated with cherry decline in Turkey.
M. Gazel, K. Çağlayan, C. Küçükgöl, S. Paltrineri, N. Contaldo, A. Bertaccini
- P-34: Preliminary observations on *Fiebertiella anategea* as possible vector of phytoplasma diseases in pomegranate orchards in Turkey.
M. Gazel, K. Çağlayan, H. Başpınar, E.M. YILDIRIM
- P-35: Insects as vectors of phytoplasma in fruit trees.
B.A. Hatteland, M.B. Brurberg, R. Tedeschi, B. Jarausch, C. Spetz, D.R. Blystad

- P-36: Detection and quantification of several apple viruses by real-time RT-PCR.
L. Winkowska, L. Grimova, P. Rysanek
- P-37: An efficient multiple RT-PCR assay for simultaneous detection of three latent viruses and apscarviroids in apple plants.
L. Hao, J.P. Xie, L.Y. Guo, Z.F. Fan, T. Zhou
- P-38: Development of a one tube Real-Time Reverse Transcription-Polymerase Chain Reaction (RT-PCR) for the detection of LChV-1.
A. Katsiani, A. Olmos, P. Pappi, K. Efthimiou, V.I. Maliogka, N.I. Katis
- P-39: Application of Next Generation Sequencing for the Detection of Tree Fruit Viruses.
M. Rott, H. Rast, I. Boyes, M. Belton, H. Saeed, P. Kesanakurti, E. Clarke, B-B. Aadum, C. Tu., A-m. Schmidt
- P-40: RNA-Seq transcriptome and ESTs analysis provides evidence of the existence of several peach-infecting Marafiviruses.
T. Candresse, P. Martínez-Gómez, M. Rubio
- P-41: An exhaustive RNA virus diagnosis “DECS analysis” was modified for the applicability to plant species.
K-T. Sekine, A. Shirakawa, H. Yanagisawa, R. Tomita, G. Atsumi

12:30-13:30 Lunch

13:30- 17:30 Free walk in Morioka city

17:30-21:00 Gala dinner at Morioka Hachiman-gu Shrine

Wednesday, 10 June

09:00-18:00 Scientific excursion

- Visit to - Apple research station of National Institute of Fruit Tree Science
- Iwate Agricultural Research Center
 - Iwate Biotechnology Research Center
 - World heritage “Hiraizumi”

Thursday, 11 June

09:00-09:30 Invited lecture

- An overview of plum pox disease in Japan
K. Maejima (Tokyo University)

09:30-10:15 Oral session 5 - Plum pox virus I. Chair: *K. Çağlayan*

- 09:30-09:45 O-21: Natural Stone Fruit Hosts of Plum Pox Virus strain ‘Turkey’.
S. Teber, K. Gürcan, A. Koç, D. Bostancı, M. Akçadağ
- 09:45-10:00 O-22: Plum Pox Virus with a High Diversity are Prevalent in Turkey.
K. Gürcan, A. Ceylan, S. Teber
- 10:00-10:15 O-23: Complete nucleotide sequence analysis of Plum Pox Virus ‘Turkey’ isolates.
A. Ceylan, K. Gürcan, M. Akbulut

10:15-10:45 Coffee break

10:45-11:45 Oral session 6 - Plum pox virus II. Chair: *P. Gentit*

- 10:45-11:00 O-24: Recombination events may play an important role in the evolution of *Plum pox virus* (PPV).
D. James, D. Sanderson, A. Varga, A. Sheveleva, S. Chirkov
- 11:00-11:15 O-25: The effect of PPV-Rec infection on phenols in fruit of ‘Pozegaca’ plum.
M. Virscek Marn, I. Mavric Plesko, V. Usenik, D. Kastelec
- 11:15-11:30 O-26: Perennial crops resistant to plum pox virus infection.
M. Ravelonandro, R. Scorza, A. Callahan, C. Dardick, P. Briard
- 11:30-11:45 O-27: Plum orchards and individual plum trees will be *Plum pox virus* free for the whole time of life.
J. Polák, R. Scorza

11:45-13:00 Lunch

13:00-14:30 Oral session 7 - Phytoplasma. Chair: *K. Oshima*

- 13:00-13:15 O-28: Epidemiology of two phytoplasmas in peach crops in Catalonia (Spain).
A. Laviña, J. Sabaté, A. Batlle
- 13:15-13:30 O-29: Epidemiology of Apple proliferation in Northern Spain.
J. Sabaté, A. Laviña, A. Etxeandia, D. Berra, A. Batlle
- 13:30-13:45 O-30: Investigation of genetic variability of Apple proliferation (16SrX) group phytoplasmas obtained from the fruit trees and *Cacopsylla* spp. in Turkey.
C.U. Serçe, M. Gazel, K. Çağlayan
- 13:45-14:00 O-31: Molecular characterization of a phytoplasma associated with little leaf disease of strawberries in Victoria, Australia.
F.E. Constable, N. Nancarrow, M. Milinkovic, S.J. Molero Obregon, A. Gomez, B.C. Rodoni
- 14:00-14:15 O-32: Molecular diversity of European stone fruit yellows phytoplasmas in field collected and micropropagated strains.
S. Paltrinieri, N. Contaldo, A. Gozzi, A. Zamorano, E. Satta, A. Bertaccini, N. Fiore
- 14:15-14:30 O-33: Draft genome sequence of 16SrIII-J phytoplasma.
A. Zamorano and N. Fiore

14:30-15:15 Coffee break

15:15-15:45 Invited lecture

Viroids and viroid diseases in Asia

T. Sano, T. Tsushima, D. Tsusima, M. Fujibayashi, T. Suzuki, C.R., Adkar-Purushothama, and S. Li

15:45-16:45 Oral session 8 - Characterization of plant viruses in small fruits I.

Chair: *J. Spak*

15:45-16:00 O-34: Large scale survey on virus diseases of *Rubus* and *Vaccinium* species in Turkey.

K. Çağlayan, M. Gazel, E. Elçi, H. Çelik, K. Gündüz, I. Mavric, B. Grubar, M. V. Marn

16:00-16:15 O-35: Detection and analysis of a filamentous virus isolated from black currant (*Ribes nigrum* cv. Baldwin) showing symptoms of leaf chlorosis and deformity.

D. James, J. Phelan

16:15-16:30 O-36: Characterization and evolution of several carlaviruses infect elderberry.

T. Ho, K.E. Keller, A.L. Thomas, N.J. Mosier, R.R. Martin, J. Postman, I.E. Tzanetakis

16:30-17:15 Oral session 9 - Characterization of plant viruses in small fruits II.

Chair: *F.E. Constable*

16:30-16:45 O-37: A new badnavirus is present in blackberry exhibiting yellow mosaic symptoms.

M.S. Shahid, N. Aboughanem-Sabanadzovic, S. Sabanadzovic, I.E. Tzanetakis

16:45-17:00 O-38: Studies on *Rubus yellow net virus* and its possible implication as integrated element in *Rubus* sp.

A. Diaz-Lara, N.J. Mosier, K.E. Keller, R.R. Martin

17:00-17:15 O-39: A new virus isolated from blueberry exhibiting a complete fruit drop symptom.

A. Diaz-Lara, K.E. Keller, R.R. Martin

18:00-21:00 Farewell beer party (optional)

Friday, 12 June

09:15-9:45 Oral session 10 - Fig-infecting viruses.

Chair: *I.E. Tzanetakis*

09:15-09:30 O-41: Viral pathogens occurring in fig-mosaic diseased trees in Greece.

M. S. Kaponi, E. K. Vellios, K.S. Phillipou, Teruo Sano

09:30-09:45 O-42: Viruses infecting fig tree (*Ficus carica* L.) in Chile.

N. Fiore, P. Ubidia, N. Franck, A. Zamorano

09:45-10:30 Coffee break

10:30~ Official meeting

- (1) Next meeting location with brief introduction of potential hosts
- (2) Replacements for scientific committee members
- (3) Future role of secretary and webmaster, possibly elections
- (4) Discussion on future of proceedings or possibly extended abstracts
- (5) Exchange of ideas how to better separate ICVF and ICVG meetings or moving more closely together
- (6) Other issues

12:00 Closing