



10<sup>th</sup>

ISHS PEACH  
SYMPOSIUM

# Conference Program

**X INTERNATIONAL PEACH SYMPOSIUM**

30 May - 3 June 2022  
Naoussa, Greece

## Monday, May 30

13:00-18:00 Attendee registration (Kiosk Venue)

**18:00-19:00 Session I: Inaugural lectures**  
Moderators: Pavlina Drogoudi & Livio Trainotti

18:00-18:15 **Maria Fabiana Drincovich**  
The metabolic diversity of peach fruit and its usage as phytochemicals resources with roles in human nutrition and health [PLE-1] *virtual*

18:15-18:30 **Vassilis Fotopoulos**  
Priming technologies in peach: where are we now, where do we go from here? [PLE-2] *virtual*

18:30-18:45 **Gregory Reighard**  
Field performance of peach rootstock cultivars in South Carolina [OP-1]

18:45-19:00 **Livio Trainotti**  
Peptide hormone genes expressed during peach fruit development and ripening [OP-2]

19:00-21:00 Welcome Reception [The Boston's]

## Tuesday, May 31

08:00-09:00 Attendee registration

09:00: 09:30 **Welcome Remarks**  
George Manganaris, Convener  
Theodore De Jong, ISHS Council member  
Nikolas Karanikolas, Mayor of Naoussa  
George Georgantas, Minister of Rural Development & Food, Greece

**09:30-11:00 Session II: Plenary lectures**  
Moderators: Theodore DeJong & Laura Rossini

09:30-10:00 **Daniele Bassi**  
Are we ready for the next peach? A still underexplored crop [PLE-3]

10:00-10:30 **James Adaskaveg**  
Overview of practices to combat postharvest diseases of peach fruit [PLE-4]

10:30-11:00 **Costas Biliaderis**  
Conventional and emerging technologies for processing peach products [PLE-5]

11:00-11:30 Morning coffee break

<b>11:30-13:00</b>	<b>Session III: Breeding (germplasm, rootstocks, cultivars)</b> Moderators: Ksenija Gasic & Yolanda Gogorcena
11:30-12:00	<b>Pere Arus</b> The peach genome and its breeding applications [PLE-6]
12:00-12:15	<b>Ksenija Gasic</b> Starting from scratch: 14 years of peach breeding program at Clemson University [OP-3]
12:15-12:30	<b>Stelios Theodoulidis</b> Yellow clingstone peaches destined for processing within a global context [Stakeholder Talk]
12:30-12:45	<b>Rodrigo Infante</b> The Chilean nectarine breeding program [OP-4]
12:45-13:00	<b>Yolanda Gogorcena</b> The genomic analysis of a wide peach germplasm collection revealed a genetic relationship between European landraces and American ferals and landraces [OP-5]
13:15-14:30	Lunch
<b>14:30-16:15</b>	<b>Session IV: Cultivation practices/Mechanizations</b> Moderators: Gregory Reighard & Ignasi Iglesias
14:30-15:00	<b>Guglielmo Costa</b> Peach fruit thinning: can we go beyond the current solutions [PLE-7]
15:00-15:15	<b>Alessandro Botton</b> Thinning peach with a new-generation GA-based compound: shedding light on bud developmental physiology to improve treatment efficacy [OP-6]
15:15-15:30	<b>Steven McArtney</b> Accede is a new thinner for stone fruit based on the naturally occurring compound 1-aminocyclopropane carboxylic acid [OP-7]
15:30-15:45	<b>George Pantelidis</b> Evaluating the effects of different mechanical flower thinners on the production cost and fruit quality characters in table and processing peach cultivars [OP-8]
15:45-16:00	<b>Pedro Dinis Gaspar</b> Multitask robotic rover for agricultural activities (R2A2): A robotic platform for peach orchard [OP-9]
16:00-16:15	<b>Gregory Lang</b> Designing planar peach/nectarine production systems that are adaptable to precision cropping, a range of rootstock vigor levels, and potential autonomous mechanization technologies [OP-10]

16:15-16:45	Evening coffee break
16:45-17:15	<b>Round table [Stakeholder event]:</b> The use of fertilizers towards sustainable peach fruit production Moderator: George Manganaris
17:15-19:00	<b>Session V: Integrated Pest Management</b> Moderators: Slawomir Lux & Eirini Anastasaki
17:15-17:45	<b>Nikos Papadopoulos</b> Challenges and opportunities in management of emerging and alien invasive pest in peaches [PLE-8]
17:45-18:00	<b>Massimiliano Virgilio</b> A multi-access identification key to fruit flies (Diptera, Tephritidae) of economic importance in Europe [OP-11]
18:00-18:15	<b>Apostolos Kapranas</b> Biological control of Mediterranean fly <i>Ceratitis capitata</i> with entomopathogenic nematodes: from laboratory assays to field application [OP-12]
18:15-18:30	<b>Slawomir Lux</b> Implications of farm structure and crop management on fruit infestation and medfly IPM [OP-13]
18:30-18:45	<b>Marco Colacci</b> The status of medfly and IPM practices based on case studies in Italy [OP-14]
18:45-19:00	<b>Eirini Anastasaki</b> Chemical characterization of the volatile infestation-fingerprint of peaches by <i>Ceratitis capitata</i> , <i>Bactrocera zonata</i> and <i>B. dorsalis</i> and conversion into a detection tool (e-Nose) [OP-15]
19:00-20:00	<b>Session VI: Out-of-the-box plenary talks</b> Moderators: Gemma Reig & María Angeles Moreno
19:00-19:30	<b>Andronikos Mauromoustakos</b> Exciting times with statistically thinking for industrial problem-solving strips [PLE-9]
19:30-20:00	<b>Magdalini Krokida</b> Evaluation of environmental and economic performance using LCA and LCCA tools: the case of peach fruit production [PLE-10]
20:30-23:00	Dinner (Brasserie Home)

## Wednesday, June 1

08:30-11:00	<b>Session VII: Plant disease management</b> Moderators: James Adaskaveg & Guido Schnabel
08:30-09:00	<b>Rosario Torres</b> Advances in management of fungal diseases in peach: the <i>Monilinia</i> spp [PLE-11]
09:00-09:15	<b>Celia Cantin</b> Influence of anatomy and composition of the fruit cuticle on peach susceptibility to <i>Monilinia fructicola</i> infection [OP-16]
09:15-09:30	<b>Carla Casals</b> Effect of abiotic factors on <i>in vitro</i> and <i>in vivo</i> development of <i>Rhizopus</i> spp [OP-17]
09:30-09:40	<b>Ioannis Avramidis</b> Geoxe: Essential tool for Monilia management before harvest on peaches [Stakeholder Talk]
09:40-09:50	<b>Dimitris Servis</b> Revyona: an innovative fungicide for the integrated control of diseases in stone fruits [Stakeholder Talk]
09:50-10:00	<b>Charalambos Liotsos</b> Corteva Agriscience: A commitment to growing progress [Stakeholder Talk]
10:00-10:15	<b>Julien Ruesch</b> EcoPêche 2: a multipartenarial project to conceive and evaluate innovative peach orchard management to reduce dependance to phytosanitary products [OP-18]
10:15-10:30	<b>Guido Schnabel</b> Biology, epidemiology and management of diseases of peach driving the spray program in the southeastern United States [OP-19]
10:30-10:45	<b>Emine Tanriver</b> Development of plants resistant to plum pox virus by intergeneric hybridization between peach and other <i>Prunus</i> species [OP-20]
10:45-11:00	<b>Manuel Rubio</b> Use of almond as interstock for PPV (sharka) protection in peach [OP-21]
11:00-11:30	Morning coffee break
11:30-13:00	<b>Session VIII: Genetics, Genomics &amp; Biotechnology</b> Moderators: Maria José Aranzana & Benedicte Quilot
11:30-12:00	<b>Thomas Gradziel</b> Exotic genes for solving emerging peach production challenges [PLE-12]

12:00-12:15	<b>Maria José Aranzana</b> Molecular-based pedigree reconstruction of peach lines and cultivars [OP-22]
12:15-12:30	<b>Morgane Roth</b> Genetic diversity in a new peach core-collection designed for resilience breeding [OP-23]
12:30-12:45	<b>Sook Jung</b> Resources for peach genomics, genetics and breeding research in GDR, the genome database for Rosaceae [OP-24]
12:45-13:00	<b>Pedro Martinez-Gomez</b> Whole-genome bisulfite sequencing and methylome profiling of homo- and hetero-grafted peach rootstocks uncovers a burst of DNA methylation events with potential impact on gene expression [OP-25]
13:00-14:30	Lunch
14:30-16:00	<b>Session IX: Climate change / fertilization strategies</b> Moderators: Davide Neri & Gregory Lang
14:30-15:00	<b>Pavlina Drogoudi</b> Climate change and the peach production sector: Challenges and adaptation strategies [PLE-13]
15:00-15:15	<b>Maria Jose Rubio Cabetas</b> Advance studies to develop biomarkers for water stresses tolerance in rootstocks [OP-26]
15:15-15:30	<b>Juan Carlos Melgar</b> Rational fertilization in peach orchards: considering orchard-specific variables to improve mineral nutrition programs [OP-27]
15:30-15:45	<b>Maria Paula Simões</b> Foliar nutrient status of peach orchards and sustainability [OP-28]
15:45-16:00	<b>Luca Mazzoni</b> Influence of different nitrogen fertilization rate on vegetative, productive and qualitative performance of three peach cultivars [OP-29]
16:00-16:30	Evening coffee break
16:30-18:30	<b>Session X: Propagation &amp; Field performance</b> Moderators: Tiziano Caruso & Dragan Nolic
16:30-17:00	<b>Tiziano Caruso</b> Propagation techniques and nursery management for the production of certified peach plants in Europe [PLE-14]

17:00-17:15	<b>Davide Neri</b> Living mulch under the row of young peach orchard [OP-30]
17:15-17:30	<b>Gemma Reig</b> Inking on Spanish peach orchards: causes and solutions [OP-31]
17:30-17:45	<b>Florin Stanica</b> Dynamics of fruit branches at new peach and nectarines cultivars under Vertical Axis and Trident canopies [OP-32]
17:45-18:00	<b>Edwige Remy</b> Specific chilling requirement as criteria in PSB genetic improvement activity [OP-33]
18:00-18:15	<b>Brendon Anthony</b> Primary and secondary metabolism crosstalk during peach fruit quality development [OP-34]
18:15-18:30	<b>Jesús López-Alcolea</b> New break dormancy spray treatments in nectarine peach ( <i>Prunus persica</i> var. nectarina), in warm areas [OP-35]
<b>18:30-20:00</b>	<b>Session XI: Fruit quality and postharvest management</b> Moderators: Hilary Rogers & Pedro Martinez Gomez
18:30-18:45	<b>Ioannis Minas</b> Large-scale orchard sensing of the genetic and horticultural impact on peach fruit quality [OP-36]
18:45-19:00	<b>Hilary Rogers</b> Common and genotype-specific responses of peach cultivars to chilled storage based on transcriptomic analysis [OP-37]
19:15-19:30	<b>María Angeles Moreno</b> Chilling injury in local and modern peach cultivars from a Spanish peach bank germplasm [OP-38]
19:30-19:45	<b>Damiana Natasha Spadafora</b> Augmented analysis of sensorial, volatilome and gene expression data from peach cultivars during cold storage to identify markers for fruit quality [OP-39]
19:45-20:00	<b>Allesio Allegra</b> Effect of <i>Opuntia ficus indica</i> mucilage edible coating on fresh-cut nectarine cv. 'Big Bang' [OP-40]
22:00-00:00	Cocktail event (Café Neon)

## Thursday, June 2

09:00	Departure from Naoussa
09:15-10:30	Guided tour [Aristotle's School Cultural Center]
10:30-12:00	Site visit at a Cooperative Units of ACNaoussa & ASEPOP Naoussa
12:00-12:30	Brunch
12:30- 15:30	Guided tour [Tombs of King Philip II, Vergina Museum]
16:00-18:00	Free time at the City of Veria
18:30	Return to Naoussa
20:30-01:00	Gala dinner [Kioski Venue]

## Friday, June 3

09:00-11:00	<b>Session XII: ISHS Young Mind Awards Competition</b> Moderators: Alessandro Botton & Morgane Roth
09:00-09:06	<b>Orestis Giannopoulos</b> Investigating the impacts of ozone treatments on postharvest quality of peaches [OP-41]
09:06-09:12	<b>Nathalia Zaracho</b> Construction of a NIL collection of <i>P. davidiana</i> into the peach genetic background [OP-42]
09:12-09:18	<b>Monica Canton</b> Epigenetic signatures regulate flower bud endodormancy in peach [OP-43]
09:18-09:24	<b>Najla Ksouri</b> Motif discovery within upstream regions of variable length reveals regulatory signatures in peach [OP-44]
09:24-09:30	<b>Jesús Guillamón</b> Non-target metabolomics and expression analysis for studying the modulation endodormancy release in peach flower buds [OP-45]
09:30-09:36	<b>David Sterle</b> Exploration of environmental and weather variables for peach floral bud cold hardiness prediction in western Colorado [OP-46]

09:36-09:42	<b>Lefkothea Karapetsi</b> SNPs identification and association study of fruit quality genes from selected whole-genome sequenced peach varieties cultivated in Greece [OP-47]
09:42-09:48	<b>Giulio Demetrio Perulli</b> Peach smart fertigation with wastewater: physiological and nutritional evaluation [OP-48]
09:48-09:54	<b>Francisca Carrasco-Cuello</b> Crop load and transpiration reduction effect on fruit and leaf mineralogical content in commercial late-harvest nectarines [OP-49]
09:54-10:00	<b>Jeff Pieper</b> The impact of size controlling rootstocks on peach fruit metabolome and internal quality in differing training systems [OP-50]
10:00-10:06	<b>Jordan Knapp-Wilson</b> 3D Imaging and Quantitative Analysis of Adult Peach Tree Architecture via TreeQSM [OP-51]
10:06-10:12	<b>Gianmarco Bortolotti</b> A computer vision system for in-field fruit quality evaluation: preliminary results on peach fruit [OP-52]
10:12-10:18	<b>Leonidas Kyrgiakos</b> Assessment of input use efficiency in peach grove cultivation: a case study of Naoussa region [OP-53]
10:18-10:24	<b>Vasilis Rodovitis</b> Population dynamics of Mediterranean fruit fly in mixed fruit orchards in Central Greece [OP-54]
10:24-10:30	<b>Voting for ISHS Young Mind Awards Competition</b>
10:30-11:00	Morning coffee break
11:00-12:30	<b>Session XIII: Plenary lectures</b> Moderators: Guglielmo Costa & Ioannis Minas
11:00-11:30	<b>Guido Schnabel</b> Peach skin disorders: causes and mitigation measures [PLE-15]
11:30-12:00	<b>Theodore De Jong</b> Understanding factors influencing peach fruit development and growth [PLE-16]

12:00-13:00

**ISHS Business meeting**

Moderators: Theodore DeJong & Florin Stanica

Report of the Working Group Chair

List of potential candidatures for the next Symposium

Candidature presentations and decision

Nomination or re-nomination of the Working Group Chair

ISHS Young Mind Awards

Concluding Remarks

# Poster Presentations, (PP)

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<b>Code</b>	<b>Presenting author - Title</b>
PP-1	<b>Lamis Chalak</b> Peach saplings as a main element of the Lebanese fruit crops
PP-2	<b>Dragan Milatovic</b> Morphological characterisation of peach pollen grains using scanning electron microscopy
PP-3	<b>Dragan Nikolic</b> Variability and heritability of flower traits, flowering and fruit set in promising peach hybrids
PP-4	<b>Dragan Milatovic</b> Characteristics of one-year-old shoots of peach hybrids from the crossing combination 'Flaminia' × 'Autumnglo'
PP-5	<b>Maria Gladysheva-Azgari</b> <i>De novo</i> assembly and annotation of mitochondrial genome of <i>Prunus persica</i> cv. 'Sovetskiy'
PP-6	<b>Metka Hudina</b> Long-term performance of the peach cultivar 'Redhaven' grafted on eleven rootstocks
PP-7	<b>Luca Dondini</b> Molecular and phenotypic characterization of a bud mutation delaying maturity date in peach
PP-8	<b>María Angeles Moreno</b> The influence of rootstocks in 'Big Top' nectarine concerning chilling injury symptoms
PP-9	<b>Corina Gavat</b> Studies regarding the flat peach and nectarine cultivars from the Research Station for Fruit Growing in Constanta
PP-10	<b>Luca Mazzoni</b> Sensorial and nutritional characterization of eighteen peach cultivars cultivated in the Mid-Adriatic area
PP-11	<b>Daniela Giovannini</b> Evaluation of suitability of peach cultivars and selections for fresh-cut industry
PP-12	<b>Lefkothea Karapetsi</b> Identification, morphological and genetic characterization of peach genetic resources in different areas of Greece
PP-13	<b>Pedro Jose Martinez Garcia</b> Genome-wide association study of interesting traits in peach using two Spanish peach germplasm collections

<b>PP-14</b>	<b>Chunxian Chen</b> Inheritance of the rough skin trait in peach
<b>PP-15</b>	<b>Chunxian Chen</b> Retrospection of some century-long peach chill, yield and other production data for breeding prospects
<b>PP-16</b>	<b>Pedro Martinez-Gomez</b> High-throughput sequencing of small RNAs evidenced the role of different plant viruses in the activation of RNA silencing-related genes and the induced resistance to plum pox virus (sharka) in peach by 'Garrigues' almond grafting
<b>PP-17</b>	<b>Morgane Roth</b> Phenotyping peach orchards with increased accuracy and throughput: perspectives of digital phenotyping
<b>PP-18</b>	<b>Najla Ksouri</b> ddRAD-seq variant calling in peach and the effect of removing PCR duplicates
<b>PP-19</b>	<b>Jorge Mas Gómez</b> Genetic diversity along peach genome in Spanish germplasm collections
<b>PP-20</b>	<b>Corina Gavat</b> The nectarine assortment created in Romania
<b>PP-21</b>	<b>Emilia Caboni</b> Novel breeding strategies for tackling present and future challenges in prunus species
<b>PP-22</b>	<b>Ruijuan Ma</b> Transcriptome analysis of photosynthetic adaptation in peach rootstock leaves under waterlogging stress
<b>PP-23</b>	<b>Jesús Guillamón Guillamón</b> Gene expression analysis in peach during endodormancy release
<b>PP-24</b>	<b>Shane Phillips</b> The use of medium to high molecular weight linear anionic polyacrylamide solutions in enhancing chill accumulation in deciduous fruits in the Riverland and Sunraysia regions of the Southern Australian Murray Darling Basin
<b>PP-25</b>	<b>Panawat Sikhandakasamita</b> Investigation of pistil doubling of low-chill peaches with early ripening
<b>PP-26</b>	<b>Katerina Grigoriadou</b> Effects of different LED wavelength absorption spectra on in vitro shoot proliferation, leaf anatomy, photosynthetic pigments and photosystem II photochemistry of GF677 rootstock

- PP-27**      **George Pantelidis**  
Estimation of chilling and heat requirements of peach and nectarine cultivars grown in the EUFRIN trials located in Lleida, Spain and Naoussa, Greece
- 
- PP-28**      **Dragan Nikolic**  
Adaptability of peach cultivars 'Royal Glory' and 'Caldesi 2000' to different environmental conditions
- 
- PP-29**      **Florin Stanica**  
Climate changes influence flowering and fruit setting at peach and nectarine cultivated in the Bucharest area
- 
- PP-30**      **Manuel Rubio**  
Transmission of sharka resistance induction to almond × peach interspecific hybrids
- 
- PP-31**      **Philip Brannen**  
Historical 1929 and 1930 phony peach disease (caused by *Xylella fastidiosa*) incidence data and relationships to physical variables and climatological data
- 
- PP-32**      **Philip Brannen**  
Historic and current prevalence of phony peach disease (caused by *Xylella fastidiosa*) in the United States
- 
- PP-33**      **Elena Coneva**  
Assessment of Armillaria root rot resistant rootstock 'MP-29' for sustainable peach production in Alabama
- 
- PP-34**      **Darko Jevremovic**  
Viruses and viroids infecting peaches in Serbia
- 
- PP-35**      **Aleksa Obradovic**  
Studying Xanthomonas arboricola pv. pruni strains from Montenegro for copper sulfate and streptomycin sensitivity in vitro
- 
- PP-36**      **Eleni Verykoui**  
Occurrence and phenology of the Mediterranean fruit fly, *Ceratitis capitata* (Diptera: Tephritidae) in the peach producing area of Central Macedonia, Greece
- 
- PP-37**      **Derek Newberger**  
Using soil disruption followed by cover crops and rootstocks to alleviate peach replant disease
- 
- PP-38**      **Ksenija Gasic**  
Short- and long-term solutions for Armillaria root rot in Prunus
- 
- PP-39**      **Dimitrios Gkoudenis**  
Implementation, customization and functional evaluation of a location aware decision support system for precise management of Lepidoptera in Greek peach orchards of Pella, Greece

<b>PP-40</b>	<b>Alexandru Bucur</b> Evaluation of the sensitivity of new peach and nectarine cultivars to bacterial diseases and oriental peach moth attack
<b>PP-41</b>	<b>Eleni Pliakoni</b> Deficit irrigation and reflective mulch effects on peach fruit quality and storage performance
<b>PP-42</b>	<b>Francisca Carrasco-Cuello</b> Transpiration influence on <sup>44</sup> Ca uptake and location in peach rootstocks using the in vitro GreenTray® bioreactor
<b>PP-43</b>	<b>George Nanos</b> Nutrient inputs and outputs in commercial clingstone peach orchards in Greece after local or sustainable fertilization practices
<b>PP-44</b>	<b>Yolanda Gogorcena</b> Effect of 3-indol-acetic acid (IAA) on iron deficient <i>Prunus</i> rootstocks
<b>PP-45</b>	<b>Anton Yordanov</b> Influence of rootstock on the content of heavy metals, micro and macroelements in the fruits of peach
<b>PP-46</b>	<b>Deanna Bigio</b> Utilizing nanocellulose as freeze protection in peach trees
<b>PP-47</b>	<b>Justin Joseph</b> Nitrogen dynamics and bud dormancy: A transcriptomic study in peach
<b>PP-48</b>	<b>Persefoni Maletsika</b> Alternative fertilization effects on peach and nectarine plant and fruit characteristics
<b>PP-49</b>	<b>Angelos Patakas</b> Irrigation scheduling based on stress coefficient (Ks) estimations in two different peach cultivars
<b>PP-50</b>	<b>Sanjaya Raj Khanal</b> The effect of the girdling time on growth and fruit quality of low-chill early ripening peach cultivar 'KU-PP2'
<b>PP-51</b>	<b>Pedro Dinis Gaspar</b> Robotic arm and gripper to pick fallen peaches in orchards
<b>PP-52</b>	<b>Srijana Thapa Magar</b> Development and evaluation of a SmartIrrigation Peach App in a young peach orchard in Georgia, USA
<b>PP-53</b>	<b>George Nanos</b> Development of an innovative smart-farming and decision-support service to improve clingstone peach cultivation

<b>PP-54</b>	<b>Eduardo Assunção</b> Navigation system of autonomous multitask robotic rover for agricultural activities based on computer vision through tree trunk detection - Application to peach orchards
<b>PP-55</b>	<b>Eduardo Assunção</b> GPS-based autonomous navigation system for multitask robotic rover for agricultural activities with augmented reality web application for supervision support - Tests in peach orchards
<b>PP-56</b>	<b>Davide Neri</b> Use of photo-selective nets in Y system with flat peach Platibelle
<b>PP-57</b>	<b>Andrea Kohler</b> Fruit quality and yield in planar training systems for peach
<b>PP-58</b>	<b>Alexandru Bucur</b> Influence of Vertical Axis and Trident planting systems on peach and nectarine fruit quality
<b>PP-59</b>	<b>Tomas Necas</b> Analyses of selected chemical compounds of different pomological groups in peaches
<b>PP-60</b>	<b>Allesio Allegra</b> Use of chemical treatments to reduce browning colour of white fresh-cut peaches, harvested in summer and late crop
<b>PP-61</b>	<b>Julien Ruesch</b> Review of 10 years of studies on peach and nectarine: identifying the least susceptible varieties to storage diseases
<b>PP-62</b>	<b>Laia Torregrosa</b> Quality alterations in different stone fruit cultivars due to a low dosage of methyl bromide fumigation
<b>PP-63</b>	<b>Maria Paula Simoes</b> Controlled atmosphere storage and fruit quality of 'Sweet Henry' peach cultivar
<b>PP-64</b>	<b>Pavlina Drogoudi</b> Impact of winter and spring temperatures on flowering phenology of peach and nectarine cultivars grown at different European sites
<b>PP-65</b>	<b>Gemma Reig</b> Agronomical performance, physiological response and fruit quality of several commercial flat peach varieties grown in the Ebro Valley, Spain
<b>PP-66</b>	<b>Pavlina Drogoudi</b> Agronomical, fruit and canned product quality traits from newly released non-melting peach cultivars/selections

- PP-67**      **George Manganaris**  
Comprehensive protocols to determine textural properties on fresh and canned peach fruits
- 
- PP-68**      **Veronica Giorgi**  
Flat peach: consumer test, sensory analysis and valorization of nutritional properties
- 
- PP-69**      **Angelos Deltsidis**  
Studying the kinetics of ozone decomposition during postharvest treatments in fresh-market peaches

# Sponsors

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## Diamond Sponsor

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AGRICULTURAL  
COOPERATIVE OF  
**NAOUSSA**

**ACN Naoussa** numbers 1457 members-producers and is perhaps the most dynamic cooperative in Greece, channelling over 25,000 tonnes of fresh fruit to the domestic and international markets each year. The Cooperative wishing to ensure the highest possible quality for the consumer has developed a dynamic system of integrated production management certified by AGROCERT for peaches, apples, cherries and plums. The Agricultural Cooperative of Naoussa owns a property of 41,259 sq m at Kopanos Anthemion and 3,437 sq m at Naoussa. The facilities, which cover a total of 13,682 sq m, are among the best in the country as they are located at the heart of fruit production areas.

## Diamond sponsor

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The logo for ASEPOP NAOUSSA features the text 'ASEPOP' on the top line and 'NAOUSSA' on the bottom line, both in a bold, teal, sans-serif font. The letter 'O' in 'ASEPOP' is replaced by a stylized peach icon with a green leaf on top and a yellow smile-like shape on its side.The logo for VERMINA is written in a purple, hand-drawn, cursive-style font. The letter 'i' in 'VERMINA' has a yellow heart shape above it.

**ASEPOP Naoussa** is collecting agricultural products from the agricultural producers-members of the Cooperation, who cultivate the most fertile regions in Imathia, on the feet of the «Vermion» Mountain. The unique microclimate of this specific region has led to the naming of the cultivated peaches as Products with Protected Designation of Origin (PDO Products). ASEPOP Naoussa has been a dynamic presence in the market for more than half a century and is always beside its customers with the best fruit and vegetables. Now, it is launching a new initiative which will give a boost to its PDO peaches and all the other its produce. It has created a strong new brand with VERMINA as its trade name and logo. VERMINA comes from a combination of the names Vermio and Naoussa. It combines all the positive aspects of the wonderful Vermio mountain range with the tradition and know-how of the producers from Naoussa who cultivate the highly fertile areas at the foot of the mountains.

## Platinum Sponsors

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**Venus Growers** is an Agricultural Cooperative activated in Northern Greece, dealing with the farming, harvesting and processing of Deciduous fruits (peaches, Nectarines, Pears, Apricots etc.). The capacity is 60.000 tn and the turnover is ca. 80 M€ with more than 97% of sales exported to Retail and Institutional markets worldwide. The fruits are sourced from associated members-farmers and other cooperatives located mainly in Central Macedonia and other regions in Greece. The processing is done in two modern facilities installed in 19 Ha. The vertical structure of the company (from the plantation of the trees to the delivery of the finished products) secures the sustainable growth of the business for the farmers and Venus Growers.

**Yara** grows knowledge to responsibly feed the world and protect the planet. Supporting our vision of a world without hunger and a planet respected, we pursue a strategy of sustainable value growth, promoting climate-friendly crop nutrition and zero-emission energy solutions. Yara's ambition is focused on growing a nature positive food future that creates value for our customers, shareholders and society at large and delivers a more sustainable food value chain. To achieve our ambition, we have taken the lead in developing digital farming tools for precision farming, and work closely with partners throughout the food value chain to improve the efficiency and sustainability of food production. Through our focus on clean ammonia production, we aim to enable the hydrogen economy, driving a green transition of shipping, fertilizer production and other energy intensive industries. Founded in 1905 to solve the emerging famine in Europe, Yara has established a unique position as the industry's only global crop nutrition company. We operate an integrated business model with around 17,000 employees and operations in over 60 countries, with a proven track record of strong returns. In 2021, Yara reported revenues of USD 16.6.

## Platinum sponsors

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**Syngenta** Crop Protection and Syngenta Seeds. Our ambition is to help safely feed the world while taking care of the planet. We aim to improve the sustainability, quality and safety of agriculture with world-class science and innovative crop solutions. Our technologies enable millions of farmers around the world to make better use of limited agricultural resources. Syngenta Crop Protection and Syngenta Seeds are part of Syngenta Group with 49,000 people in more than 100 countries working to transform how crops are grown. Through partnerships, collaboration and The Good Growth Plan, we are committed to accelerating innovation for farmers and nature, striving for carbon neutral agriculture, helping people stay safe and healthy, and partnering for impact.

**BASF** creates chemistry for a sustainable future. We combine economic success with environmental protection and social responsibility. Around 111,000 employees in the BASF Group contribute to the success of our customers in nearly all sectors and almost every country in the world. Our portfolio comprises six segments: Chemicals, Materials, Industrial Solutions, Surface Technologies, Nutrition & Care and Agricultural Solutions. Farming is fundamental to provide enough healthy and affordable food for a rapidly growing population while reducing environmental impacts. Working with partners and agricultural experts and by integrating sustainability criteria into all business decisions, we help farmers to create a positive impact on sustainable agriculture. That's why we invest in a strong R&D pipeline, connecting innovative thinking with practical action in the field. Our portfolio comprises seeds and specifically selected plant traits, chemical and biological crop protection, solutions for soil management, plant health, pest control and digital farming. With expert teams in the lab, field, office and in production, we strive to find the right balance for success – for farmers, agriculture and future generations.

## Platinum sponsors

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**CORTEVA**<sup>TM</sup>  
agriscience



*The fertility power*

**Corteva Agriscience Hellas** is a pure-play agriculture company that provides farmers with the most complete portfolio in the industry - including a balanced and diverse mix of seed, crop protection and digital solutions focused on maximizing productivity to enhance yield and profitability. With some of the most recognized brands in agriculture and an industry-leading product and technology pipeline well positioned to drive growth, the company is committed to working with stakeholders throughout the food system as it fulfills its promise to enrich the lives of those who produce and those who consume, ensuring progress for generations to come.

**Hellagrolip** is a leader in the Greek market, as the only producer and commercial fertilizer company in Greece. Our market presence is the result of high quality, deep knowledge and long experience in crop nutrition. The multiple advantages and excellent quality features of our products create strong brands, recognized among the top in the world, and their name is inextricably link to the development of Greek Agriculture. We utilize research and our highly-trained staff, and we produce a full line of innovative nutritional products, covering the entire range and the requirements of modern agriculture.

## Gold sponsors

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**Vitro Hellas** was founded in 1986 with headquarters in Niseli Alexandria in Imathia. The mission of the company is the production and distribution of high-quality plant material through the monitoring of new trends in the agricultural sector and the expansion of collaborations and research activities in order to develop new technologies, products and markets.

**Tsesmelis Fruit and Nut nursery** is dedicated to the production of healthy, certified and high-quality young tree plants. We represent the best breeders of varieties. Varieties that are making a big difference for our local and international clients. We are a family business and our experience of more than 40 years is guiding us to the future.

**Neos Aliakmon** was founded in 1968 when a group of peach producers decided to work collectively to sell their production. Today the coop uses modern refrigerator and sorting facilities with new technology equipment, continuously investing in the quality of the products. The cooperative produces apples, cherries, apricots, pears, plums, lotuses (persimmon) and pomegranates, but the main production is peaches, nectarines, and kiwis. The whole production process is certified according to the standards ISO 9001/2000, ISO 22000/2005, BRC and IFS, while also an integrated management system is implemented in accordance with national standards AGRO 2 and the GLOBAL G.A.P Protocol.

## Gold sponsors

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**Felix Instruments:** Applied Food Science was founded in 2012 as a subsidiary of CID Bio-Science, Inc., putting 30 years of experience engineering plant science tools to work for the commercial agriculture sector. Focusing on pre- and postharvest applications, Felix Instruments helps fresh market professionals maximize the value of their products with their lines of NIR and gas-analysis tools. Felix Instruments' devices are used by over 500 agriculture organizations globally.

**ECOMATIK GmbH** presently represents one of the world's leading manufacturers of plant sensors such as dendrometers, fruit growth, transpiration, and foliage temperature sensors. In deserts and rain forests, in polar regions and the tropics, ECOMATIK sensors are valuable measurement tools in bio-, geo- or environmental sciences as well as in practical applications in agriculture, forestry, horticulture and viticulture. Plant and environmental sensors, image & video, remote data transmission, online data visualization, IoT sensor networks feeding real-time data on plant and climate parameters into intelligent algorithms of smart farming service providers. Our open framework enables us and our partners to integrate our own sensor products in addition to those from other manufacturers for use in comprehensive, customer-specific measurement and data systems. In synergy with our steadily growing network of prominent partners and selected quality suppliers, the ECOMATIK team supports you with the drive of an innovative, flexible and enthusiastic start-up combined with the experience of an established 30-year old company.

**Timac Agro | ΛΥΔΔ** is a subsidiary of the French group Roullier. The Roullier Group is a global power in the Agri-food sector with more than 96 production units worldwide, producing 4.8 million tonnes of finished product annually with a turnover of over 2.5 billion Euros. The aim of the Roullier Group and Timac Agro is to continuously create innovative solutions with the main aim to meet the needs of tomorrow's Agriculture. For this reason, the Roullier Group has established the world's largest specialist nutrition research center, called the CMI (Center Mondial de l'innovation Roullier), which hosts more than 100 scientists of different specialties from 15 different countries and its sole purpose is the creation of new technologies for new generation fertilizers. Our products aim not only to maximize the production, but also to optimize the quality, ensuring a greater and more sustainable income for all farmers.

## Silver sponsors

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**EuroChem** is a vertically integrated agrochemical company, combining natural resources and production bases, supported by wholly owned logistics assets and a global advisory, sales and distribution platform. Our production base is becoming more international, with assets in Russia, Lithuania, Kazakhstan and Belgium, plus a joint venture in China. These assets have ready access to key markets through our logistics and distribution network that currently covers more than 25 countries. We currently manufacture nitrogen and phosphate fertilizers and will soon launch potash operations to further enhance our product mix. Our range is of high quality and includes the well-known granular NPKs Nitrophoska®, which have about 100 years of life, but also ENTEC® and UTEC®, which through the nitrification and urease inhibitors they contain respectively, ensure the optimal use of nitrogen with the least possible losses to the environment. In recent years, the portfolio of EuroChem has been enriched with the full range of water-soluble fertilizers Aqualis™, which include raw materials and NPK fertilizers, giving tremendous flexibility to every farmer and crop.

**AgroFresh** is an AgTech innovator and global leader with a mission to prevent food loss/waste and conserve the planet's resources by providing a range of science-based solutions, data-driven digital technologies and high-touch customer services. AgroFresh supports growers, packers and retailers with solutions across the food supply chain to enhance the quality and extend the shelf life of fresh produce. The AgroFresh organization has 40 years of post-harvest experience across a broad range of crops, including revolutionizing the apple industry with the SmartFresh™ Quality System for more than 20 years. This is powered by a comprehensive portfolio that includes plant-based coatings, equipment and proprietary solutions that help improve the freshness supply chain from harvest to the home. Visit [agrofresh.com](http://agrofresh.com) to learn more.

**Valent BioSciences LLC** is a worldwide leader in the research, development and commercialization of biorational products for the agricultural, public health and forest health markets. With sales in an estimated 100 countries, the company is renowned for its innovation, best-in-class quality in manufacturing, product performance and consistency, and fully developed portfolio of sustainable solutions. The product family includes bioinsecticides, biofungicides, bionematicides, mycorrhizal fungi and plant growth regulators used in sustainable systems. Valent BioSciences' products are manufactured using proprietary fermentation processes and post-fermentation product recovery techniques rooted in pharmaceutical manufacturing, techniques the company has been perfecting for more than 50 years.

**Bayer Crop Science** is part of the quest to contribute to a better world, a world in which biodiversity thrives in harmony with humankind, hunger and climate change are effectively tackled by joint global actions, farms are more sustainable with plants that are more adaptive and resilient and where agriculture increases economic prosperity for all farming families and their communities. With innovative chemical & biological crop protection, seeds & traits and digital technologies & services, we strive to discover and promote farming practices that help our planet thrive and become a better place for generations to come. Megatrends such as a growing world population, climate change and changing consumer preferences drive the need for innovation in agriculture. These efforts are backed by the passion of over 33,000 employees, activities in more than 140 countries and R&D investments that are unmatched in the industry.

**Agricultural Cooperative of Episkopi** annually distributes 12.000.000 kg of products, 6.000.000 kg peaches, 2.000.000 kg nectarines, 3.000.000 kg kiwis and the rest 1.000.000 consists of cherries, plums and apricots. The Cooperative is certified from 2003 for both facilities and products. The facilities are in a proprietary area of 23000m<sup>2</sup> in Episkopi. The building is 7000 m<sup>2</sup> and the cool stores are able to store about 4.000.000 kg of fresh fruits. Peaches and nectarines are mainly exported in Poland, Italy, Cyprus, Ukraine, Serbia, etc., while kiwifruits are being exported in Poland, Italy, Spain, France, Saudi Arabia, UAE, USA, India, Hong Kong, etc.

**Papakonstantinou Fruits** was established in 1969 by Mr Nikolaos Papakonstantinou. The business has been running in a small rented warehouse until 2000. In 2000, the company moved to new private premises, while Mr Konstantinos Papakonstantinou became the general director. Mr Konstantinos Papakonstantinou gained his degree in Agriculture from the Aristotle University of Thessaloniki. In 2012, the premises were expanded and modernized. New state of the art freezing chambers were built while a new electronic fruit classifier was installed. The packing equipment was updated too and modern logo and designs were created. The business specialization together with the experience gained all these years on fruit trading, made Papakonstantinou Fruits capable to export fruit to central and eastern Europe, North Africa and western Asia. Today, the company exports fruit to more than 15 countries. Our premises are located at Monospita in Central Macedonia (9 km east of Naoussa), straight into the heart of the Greek peaches and nectarine. The company is certified by Eurocert with ISO 22000/ 2005 and Global Gap.

**Q-CERT** is the largest certification body based on North Greece, established in 1998. It is present in Europe, North Africa, Middle East and Asia. Our auditors are experienced industry experts in all sectors including agriculture, food industry, non-food industry, service and public sector. We stand by the fact that audits are conducted only by sector specific experienced and professional auditors. QMSCERT is a founding member of HELLASCERT, the official association of Certification Bodies in Greece. It is an EU Notified Body with number 1617. Q-CERT is the 7th largest Certification Body in Greece and one of the largest in the Balkans. It has 55 members at a permanent base and has more than 250 auditors on a contract base. We have audited more than 30.000 customers in Greece and abroad.

## Bronze Sponsors



**Emphyton** activities in the field of agricultural crops and products are since 1964 having a unique and innovative role. It combines three related business units: The Fruit nursery tree production, the Distribution of nutritional products and bio stimulants and the Fruit Trade. Emphyton through its group of specialized technicians is providing quality service to its partners and always stand by them with cultivating suggestions and solutions that can help to develop their production techniques. Innovation, respect to partnerships, investments for low CO2 foot print are the selected steps for the next day in agriculture of Greece. GreenValue+ is the new brand name of Emphyton products with a list of "smart pesticides" harmonized with the strategy of EU for the program of Farm to Fork. GreenValue+ products are friendly to environment, to the user and of course to consumer with one powerful role to fulfil "the adaptation of plant protection to new climatic changes challenges".

**Milis Nurseries** has been a reference point in the production and marketing of fruit seedlings for over 60 years. Investing in human resources, it is staffed with a team of agronomists, able to meet the ever-increasing needs of its partners. Many years of experience and constant search make the company the recipient of an ever-increasing volume of information and new innovative technologies. This combination leads her to undertake and implement large projects abroad, which include all work from planting to harvest.

**Agrology** is a fast-growing company with long experience both in Specialty Plant Nutrition and Plant Protection Sector. Agrology's strategy is based on Science-Driven Product Development and a Customer-Centric Approach. By understanding crop and cropping requirements, creates solutions that can optimize customers' Plant Nutrition Investments. With a focus on long-term collaborations with strong local partners and research institutes in each country, Agrology's aim is to expand the local agronomic expertise by empowering its partners.

**COMPO EXPERT GmbH** with headquarters in Münster/Westphalia is an international company with 21 sales offices in Europe, North and South America, as well as in Asia and Africa. The company produces high-quality specialty fertilizers and biostimulants in its four fertilizer plants in Krefeld (Germany), La Vall d 'Uixó (Spain), Deinze (Belgium) and Patras (Greece), thus offering professional users safe solutions for the segments of fruits, vegetables, field crops, turf and public green as well as nursery and ornamentals. Our innovative product range includes specialty mineral and stabilized

fertilizers, slow and controlled release fertilizers, water soluble and liquid fertilizers as well as biostimulants, trace elements and soil conditioners. The high quality and innovative technology of its products, in combination with the expertise of its agronomists, ensure top quality results.

**ASPIS** is one of the largest processors of fruits and vegetables in Greece and among the leading in the world, for technological products from fruits and vegetables. The company produces fruit juices and pulps from a wide variety of fruits, fruit aromas and oils, fruit preparations and canned products. The high quality and innovative products of ASPIS support a large number of well-known and recognized private brands and supermarkets. In our 50 years history, with hard work and commitment, the company serves more than 70 countries around the world. Our goal is to expand our product portfolio and reach every attractive new market that we didn't have the chance to be a part of until today. ASPIS has processing units in two different areas of Greece, in Argos in Southern Greece and in Irinoupoli in Northern Greece.

**FITOTECHNIKI** specializes in tissue culture propagation of fruit tree rootstocks. Facilities include a micropropagation laboratory, 4 hectares of greenhousing for acclimatization and micrografting, and a nursery covering approximately 10 hectares. The company collaborates with Universities and other research institutions at Greek and European level. The laboratory produces rootstocks for stone and pome fruit species and varieties of kiwifruit, supplying Greek nurseries and exporting to several other countries. All plant material sold by FITOTECHNIKI is certified virus-free according to Greek and European regulations.

**VITAPLANT** is a nursery of fruit plants since 1970 with headquarters at Monospita-Naoussa, Greece. Our facilities are covering 30 hectares of nurseries, 5.000 square meters of warehouses as well as cold storages and a greenhouse under construction. Our annual production is almost 1 million plants of all kind of species such as peaches, nectarines, almonds, apples, apricots, chestnuts, cherries, lotus, pears, plums, walnuts etc. Apart our role as national market leader in Greece, we export to countries such as Algeria, Jordan, Lebanon, India, Bulgaria, Poland etc. Our goal is to produce healthy & high-quality plants as a result of our responsibility and hard work, in order to support our clients to their investments and efforts.

**Agromillora Group** is a worldwide leader company in the nursery sector and a benchmark in production and marketing of fruit trees and olive trees with the highest genetic and health standards. This leadership is the result of two factors: an innovative and high-tech productive system and a presence in five continents. Thanks to these factors, we have become the number one supplier of propagation for woody species in the agricultural industry. We are strongly committed to the development of global agriculture to which we contribute value through productivity enhancements. We promote the creation of more productive, healthy and resistant plants and work to implement new agronomic solutions, such as the Super High-Density techniques, new pruning systems and plant conduction systems. All these systems are much more efficient and profitable for the grower.

**ASEPOP VELVENTOS** is an agricultural cooperative which was founded in 1917 and consists of 400 producers with main activity the produce of fresh fruits with a total production that exceeds 15.000 tones. ASEPOP VELVENTOS is certified by ISO 9001:2000, ISO 22000:2005 Globalgap, Grasp and applies system of integrated management in agricultural production. The products of the cooperative are recognizable in international markets so much so the demand is high and in some cases the availability of products is not enough for the entire demand.

**Agrohellas SA** is a Greek company based in Kastanies Evros with modern facilities located in Aghialos, Thessaloniki. The company founded in 1991 from people passionate with the agricultural industry who have strong will to serve the agri-food sector with consistency and vigor. Agrohellas supports producers and breeders not only by offering them a complete plant and livestock management solution but also with the production, process and trade of unique agricultural products, aiming to modernize their agricultural holdings and businesses. Covering a wide range of activities, Agrohellas envision is to contribute to the sustainable modernization of the Greek agricultural production.

**DELCOF SA** was founded in 1999 and derived from the need of wider cooperation and mutual support of the biggest processed fruit industries in Greece. In the frame of this network ANALYSIS-DELCOF SA. began the same year its operation as a food, water and environmental specialized Laboratory. ANALYSIS-DELCOF's facilities are located in Naoussa which is a geographical center of intense agricultural and industrial activity. Since 2006 the laboratory is accredited by Greek Accreditation Board (ESYD) under the ISO 17025 standard. The laboratory's purpose is to provide quality analysis to all food and water industry, municipal water companies, agricultural cooperatives, trade organizations, governmental departments, as well as private individuals. The laboratories personnel expertise and the cutting-edge technology equipment offer high quality and reliable chemical and microbiological analysis.

**Anadiag Hellas** is an independent CRO, specialized in agrosociences services, on the European market. For over 30 years, we have been specialized in plant product registrations (plant protection products, seeds, fertilizers, biocompounds, biostimulants and biocides, etc). The head office in northern Greece is located in the city of Veria, Imathia, which is one of the most important agricultural areas in Greece. The Branch station in Crete is located in the city of Heraklion.

## STORY BEHIND THE LOGO



**ACADEMIC  
RESEARCH**



**10  
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