



Bologna, Italy
28 AUGUST – 2 SEPTEMBER 2016

Sunday August 28

WELCOME

6.30PM - 8.30PM

WELCOME COCKTAIL AND REGISTRATION

in San Giovanni in
Monte Cloister

*Piazza San Giovanni in
Monte, 2 - Bologna*



Monday August 29

ORCHARD SYSTEMS

8.30 AM

REGISTRATION

Registration continues at the
Congress Venue: **"Belmeloro
University Complex"**
Via Belmeloro 14, Bologna

9.00 AM - 9.15 AM

Luca Corelli Grappadelli
Welcome

9.15 AM - 9.45 AM

KEYNOTE

Stuart Tustin

The Planar Cordon –
New Planting Systems
Concepts to Improve Light
Utilisation and Physiological
Function to Increase Apple
Orchard Yield Potential

SESSION I & II: TRAINING AND ARCHITECTURE

9.45 AM - 10.30 AM

Chairs: **Dugald Close**

Ted M. DeJong

Demonstrative Simulations
of L-PEACH: A Computer-
based Model to Understand
How Peach Trees Grow

James A. Flore

"Modification of Orchard and
Tree Climate using a Solid Set
Canopy Delivery System"

Connie Fisk

Effects of Orchard Floor
Management on the
Peach Rhizosphere

10.30 AM - 11.00 AM

COFFEE BREAK

11.00 AM - 1.00 PM

Chair: **Stefano Musacchi**

Gerardo Lopez

Simulation of Tree
Growth for Three Almond
Cultivars with Contrasting
Architecture with the
L-ALMOND Model

Grant Thorp

Using Scion Architecture
of One-Year-Old Budded
Trees as a Guide to
Optimise Almond Orchard
Systems Design

Claire Scofield

Nursery Tree Design Effects
on One- and Two-year
Infrastructure of Sweet
Cherry and Apricot Cultivars

Jill Stanley

Early Canopy Development
and Production Precocity
in New Orchard System
Designs for Cherry



Benjamin Toft

Can Greater Understanding of Macadamia Tree Architecture Lay the Foundation for Orchard Productivity Improvements?

1:00 PM - 2:00 PM

LUNCH BREAK

2:00 PM - 3:30 PM

POSTER SESSION

Inigo Auzmendi

Using Functional-Structural Modeling to Study Patterns of Fruit Size Distribution in Tree Canopies

3:30 PM - 4:00 PM

COFFEE BREAK

Paula Ibell

The Effects of Variety and Training System on Vegetative Growth of Mangifera Indica (Mango) Orchards in Far North Queensland

SESSION III: LIGHT
MANAGEMENT AND PRUNING

4.00 PM - 6.00 PM

Chair: **Wiehann Steyn**

Paula Ibell

The Effects of Alternative Training and Planting Systems on Light Relations in Mangifera Indica (Mango) Orchards in Far North Queensland

Richard Bastias

Use of Photo-selective Netting to Prevent Sunburn in Apple Orchards

Lee Kalcsits

Light, Air, and Soil Environment Manipulation Using Photosensitive Anti-Hail Netting in a High Latitude, Desert Environment

Sergio Tombesi

Xylem Manipulation Techniques Affecting Tree Vigour in Peach and Olive Trees

Peter Hirst

Defining and Automating Optimal Dormant Pruning

Matthew Whiting

Mechanical Pruning is Promising in Vertical Fruiting Wall Sweet Cherry Orchards

Tim Biddlecombe

To Investigate the Effect of Four Timings of Mechanical Pruning on Yield and Fruit Quality Compared to a Hand Pruned Control in an Intensive Gala M9 Orchard planted as a Fruit Wall

Idris Macit

The Effect of Bud Management on Growing and Development in Cherries

Stefano Musacchi

Fall and summer pruning to control vigor in d'Anjou pear

Tuesday August 30

ROOTSTOCKS

8.30 AM - 9.00 AM

KEYNOTE

Gregory A. Lang

Integrating Canopy Architectures and Rootstock Traits to Optimize Fruit Production in Different Environments

SESSION IV V VI: ROOTSTOCKS

9.00 AM - 10.30 AM

Chair: **Leo Rufato**

Jaume Lordan

Effects Of Apple Rootstocks On Growth Vigor, Bud-Break, Yield Scion Response and Hormone Concentration

Nicola Dallabetta

The Performance of Geneva Rootstocks in the Province of Trento, Italy

Wiehann Steyn

Evaluating More Yield Efficient Dwarfing, Semi-Dwarfing and Semi-Vigorous Rootstocks for the South African Apple Industry

Felicidad Fernandez

Towards Marker-Assisted Breeding in the NIAB-EMR Apple Rootstock Breeding Programme

Todd Einhorn

Cold-hardy Amelanchier Hybrid Rootstocks Confer Dwarfing, Precocity, and High Productivity to 'd'Anjou' and 'Comice' Scions in International Field Performance Trials

Anahita Mizani

Identifying Vigour Controlling Rootstocks for mango

10.30 AM - 11.00 AM

COFFEE BREAK

11.00 AM - 1.00 PM

Chair: **Ben van Hooijdonk**

Alex Salazar-González

Graft Compatibility For New Released Prunus Rootstocks

Gregory Reighard

Rootstock Performance in the 2009 NC-140 Peach Trial Across 11 States

Rosario Muleo

Using Genome Plasticity to Generate in Vitro Rootstocks Tolerant Waterlogging in Vivo

Geza Bujdosó

Evaluation of Some Precocious Sweet Cherry Cultivars on Some Hungarian Bred Mahaleb Rootstocks

Lynn Long

Interaction of 'Regina' Sweet Cherry (*Prunus avium* L.) on Five Rootstocks Trained to Kym Green Bush or Vogel Central Leader Systems

Gregory A. Lang

The NC140 Trial Results from Michigan, New York, British Columbia, and Nova Scotia

Kouros Vahdati

Association of Anatomic factors and growing rate of seedling in Persian walnut (*Juglans regia*)

Kouros Vahdati

Evaluation of Different Covering and Different Methods of Grafting on Walnut Grafting Success Under Shade-house Condition

1:00 PM - 2:00 PM

LUNCH BREAK

2:00 PM - 3:30 PM

POSTER SESSION

3:30 PM - 4:00 PM

COFFEE BREAK



4.00 PM - 5.00 PM

Chair: **Gennaro Fazio**

Luigi Tarricone

Rootstocks and Soil Management Effects on Productive Characteristics of Princess Seedless Table Grapes in Apulia Region (Southern Italy, First Results)

Adam Friend

Diversity in Scion Development in a Grafted Pyrus Seedling Rootstock Population

Jef Vercammen

Search for a more dwarfing rootstock for 'Conference'

Gennaro Fazio

Honeycrisp apple fruit nutrient concentration is affected by rootstocks

6.30 PM

TRANSFER

to College of Agriculture

7.00 PM - 8.00PM

PLENARY SESSION

a Celebration in honour of
Prof. Silviero Sansavini

8.00 PM

COCKTAIL DINNER

offered to all participants and accompanying persons

Wednesday
August 31

TECHNICAL VISITS

7.30 AM - 7.00 PM

- Option I.
ROMAGNA Tour
Stone Fruit
- Option II.
FERRARA Tour
Pome Fruit



Thursday September 1

ENVIRONMENTAL PHYSIOLOGY

8.30 AM - 9.00 AM

KEYNOTE

Maciej Zwieniecki

Management of nonstructural carbohydrate pools in trees' preparing for the challenges imposed by a warmer world

SESSION VII: TREE PRODUCTIVITY

9.00 AM - 10.30 AM

Chair: **Bartolomeo Dichio**

Ben van Hooijdonk

Harvest Index of Apple and Kiwifruit - How High Can We Go by Optimising Plant Architecture and Canopy Management?

Todd Einhorn

An Increase in Pistil Growth, Relative Water Content and Freeze Sensitivity Precede Visible Changes of Sweet Cherry Reproductive Buds and Correlate with Advancing Phenology Stages of Several Genotypes

Benoit Pallas

The Analysis of the Impact of Carbon Source-sink Relationships on Flowering Patterns Reveals That Apple Tree Growth and Functioning are Determined by Mechanisms Occurring at the Tree and Shoot Scales

Ken Breen

Apple Fruit Set is Influenced by Altered Floral Bud Density But Not by Reduced Carbohydrate Reserves Status

Matthew Whiting

A Precision Pollination System for Yield Security in Tree Fruit

Robert Veberic

Fruitlet Shedding Affected by the Position in the Apple Cluster

10.30 AM - 11.00 AM

COFFEE BREAK

SESSION VIII: SOURCE/ SINK RELATIONS

11.00 AM - 12.00 AM

Chair: **Todd Einhorn**

Helen Hofman

Improving Crop Load of 'Hass' Avocado in High Density Systems

Michael Blanke

Effect of Crop Load Management (CLM) by Selective Thinning on Detection of cv. Pinova Apple Fruit for Yield Prediction



Adam Friend

Inducing sylleptic branching in the interspecific pear PremP109

Gabino Reginato

Fruit Size and Yield Efficiency of Gala Apples Grown in Chile Depend on the Cultivation Area

SESSION IX: FRUIT QUALITY

12.00 AM - 1.00 PM

Chair: **Gerardo Lopez**

Poliana Francescato

A Study on AVG and 1-MCP Uptake from Foliar Applications in Apple

Michael Blanke

Non-Invasive Examination of Plant Surfaces by Opto-Electronic Means - Using Wax Bloom and Russet as Examples

Friday September 2

ENVIRONMENTAL PHYSIOLOGY

Ioannis Minas

Unravelling the Impact of Altitude on Peach Fruit Quality and Postharvest Performance Using Large Scale Molecular Analysis

Peter Balk

The AppleGenie Project: bringing genomics innovation to management of crop load and bitter pit in the orchard

1.00 PM - 2.00 PM

LUNCH BREAK

2.00 PM - 3.30 PM

POSTER SESSION

3.30 PM - 4.00 PM

COFFEE BREAK

4.00 PM - 5.30 PM

BUSINESS MEETING

7.30 PM

TRANSFER

to the Restaurant

8.00 PM

SOCIAL DINNER

@ Savoia Hotel Regency

SESSION X: FLOWERING, FRUIT SET AND PLANT GROWTH REGULATORS

8.30 AM - 10.30 AM

Chair: **Matt Whiting**

Gabino Reginato

Modeling and Monitoring Post-Bloom Fruit Growth and Drop in Apple; Prediction of Sensitivity and Assaying Effects of Chemical Thinners

Jef Vercammen

Chemical Thinning of 'Conference'

A.M. Muller

The Use of Plant Growth Regulators to Increase Apical Extension Growth of First-leaf Apple Trees

Michael Blanke

Pigment Analyser (PA) and DA Meter- Future Ripening Indicators?

Joyce Tina Razakararimo

Flowering is Related to the Axis Phenology in the Clove Tree, an Irregular Bearing Spice Crop

Frederic Normand

Integrated Mango Production: Objectives and Challenges

Dugald Close

Horticultural Ecophysiology of Tasmanian Native Pepper

10.15 AM - 10.45 AM

COFFEE BREAK

SESSION XI: WATER RELATIONS AND SOIL MANAGEMENT

10.45 AM - 12.15 AM

Chair: **Jef Vercammen**

Bartolomeo Dichio

Water and Carbon Economy in Sustainable Orchards in Mediterranean Environments

Alexandra Boini

Testing the effect of light conditioning and water stress on apple physiological parameters and yield

Benoit Pallas

Impact of Long Term Water Deficit on Production and Flowering Occurrence in the 'Granny Smith' Apple Tree Cultivar

Matthew Whiting

Withholding Near-Harvest Irrigation in Sweet Cherry has Minimal Effect on Fruit Quality

Sadeq H. Bayesh Al-Fadheel

Sustainable Irrigation Strategy on Organic Victoria Table Grape in Apulia Region

Elena Baldi

Increasing Phosphorus Concentration in Soil as a Possible Strategy to Overcome Cu Excess Symptoms

12.15 AM - 12.45 AM

CONCLUDING REMARKS

12.45 PM

FAREWELL LUNCH

ALL POSTERS WILL BE ON DISPLAY FOR THE ENTIRE DURATION OF THE SYMPOSIUM. THE PRESENTING AUTHORS MUST STAND BY THEIR POSTER DURING THE POSTER SESSION, ACCORDING TO THE FOLLOWING SCHEDULE

Monday August 29

**POSTERS:
ORCHARD SYSTEMS**

Franci Stampar

Solaxe and Spindle '
Comparison of Two Apple
Training Systems

Danilo Cabrera

Comparison of Training
Systems and Planting Density
for Gala 'Baigent'® Grafted
Onto G 16 Rootstock

José Luiz Petri

Habit of Growth and Influence of
Summer Pruning on Growth of
Apple Trees in Warm Weather

Guilherme F. Sander

The Effect of Different Training
Systems on Vegetative and
Productive Performance
of Apple Trees Cultivar
'Maxigala' - in Southern Brazil

In Hee Park

Effects of Mulching and
Root Pruning on Root
Pressure of 'Fuji' Apple
Nursery Trees Grafted on
M.9 and M.26 Rootstocks

Andrea De R. Rufato

Development and Productivity
of Apple Trees cv. MaxiGala
on Different Planting Depth

Jinzheng Wang

Implementation of Different Thinning
Methods of Airtight Apple
Orchards and Their Effects on
Orchard Structure, Solar Energy
Utilization and Fruit Quality

Marlene Ayala

Implementation and Evaluation
of Training Systems for
Pedestrian Orchards in sweet
cherry (*Prunus avium* L.)

Brent L. Black

Renewal Pruning Strategies
for Montmorency Tart Cherry
on Dwarfing Rootstocks

Wiehann Steyn

Canopy Factors Influencing
Sunburn And Fruit Quality
of Japanese plums
(*Prunus salicina* lindl.)

Davide Neri

Use of Nets in the Olive
Orchard Management

Leo Rufato

'Gala' Apple Performance with
Mechanical Hedging in Southern
Brazil Growing Conditions

Matthew Whiting

Timing of Pruning Affects
Vegetative Growth but
Neither Yield nor Fruit
Quality in Sweet Cherry
Trained to the UFO System

Dario Stefanelli

The Effects of Canopy
Architecture and Crop Load on
Non-structural Carbohydrate
in Young Stonefruit Trees:
Preliminary Results

Tuesday August 30

**POSTERS:
ROOTSTOCKS**

Nicola Dallabetta

Performance of Different
Rootstocks in Varying
Soil Conditions

Malgorzata Korbin

Putative Functional
Markers Related to
Cold-Hardiness of Apple
Rootstocks, Revealed by New
Generation Sequencing

Stefano Musacchi

Preliminary Results of a
Multisite Trial on New Apple
Rootstocks on Fumigated
and Replant Soil Conditions

Leo Rufato

Maturation Behavior of
Maxi Gala Grafted on
two Rootstocks by no
Destructive Method

Andrea De Rossi

Chill Requirement and
Budburst Uniformity on
Cultivar MaxiGala Grafted
on Different Rootstocks

Adam Friend

Comparing ease of
propagation of European
pear cultivars to that of Pyrus
rootstock mapping population

Leyla Demirsoy

Promising Sweet Cherry
Genotypes as Cherry
Rootstocks from North
Anatolia (Preliminary Results)

Michelle Morales-Olmedo

Influence of Different
Rootstocks on the
Physiological Response of
'Bing' Sweet Cherry Grown
Under Soils with Poor Aeration

Thursday September 1

POSTERS: ENVIRONMENTAL PHYSIOLOGY

Maria Claudia Piagnani

Field difference on self-rooted cherry cv 'Hedelfingen' wild type and somaclone 'HS' between 'Gisela 6' and 'Colt' rootstock on vegetative habitus and production effect

Edgars Rubauskis

The Productivity Evaluation Methods of Cultivar and Rootstock combinations

Michael Parker

Peach Rootstock Influences on Tree Survival from Bacterial Canker in the Southeastern United States

Connie Fisk

Rootstock Effect on Soil Ecology in a Young Peach Orchard

Alessio Scalisi

Preliminary Evaluation of six Prunus Rootstocks for Peach in Italy

Mohamed Ghrab

The effect of three different vigour rootstocks

Leo Rufato

Root Distribution Combinations Rootstocks of Quince Grafts and Pear Cultivars and its Relationship with Vigor and Production

Aike Anneliese Kretzschmar

Use of Quince Adams Rootstock as an Alternative in European Pear Production in Southern Brazil



Jason French

Pecan Rootstock Maternal Genotype: Implications for nutrient uptake in alkaline soils

Darius Kviklyš

Plum Tree Performance on Two Rootstocks in the Young Orchard

Ludek Lanar

Early Performance of Three Plum Varieties on Different Rootstocks in Non-irrigated Orchard

Kourosh Vahdati

Dwarf Rootstock Selection From Half-Sib Progeny of Early Mature Walnut Landraces

Darius Kviklyš

Towards Apple Bearing Stability in Strictly Alternating Orchard

Michael Blanke

Reflective Mulches (Extenday and Lumilys) and Biostimulant (Sunred) to Improve Fruit Colour in Apple

Dragan Radivojević

Efficiency of Fruitlet Thinning in 'Granny Smith' Apple by Use of Metamitron

Marlene Ayala

Use of Brassinosteroids to increase fruit quality in sweet cherry (*Prunus avium* L.)

Husnu Demirsoy

Promalin Affects Lateral Shoot Formation in Sweet Cherries

Rosario Muleo

Plasticity of Plant Development in Apricot as Determined by Genome and Surrounding Light

Todd Einhorn

Endopolyploidy Was Observed in Sweet Cherry Mesocarp but Relative Rates of Growth and Endoreduplication Were Uncoupled

Davide Neri

Effect of Manure and Digestate Amendments on Root Growth of Apple Seedlings in the Presence of Homospecific Residues

Moreno Toselli

Nitrogen Fertilization of Chardonnay Grapevine: Yield, Must Composition and their Relationship with Temperature and Rainfall

OUR LOCATIONS

SAN GIOVANNI IN MONTE CLOISTER

Piazza San Giovanni
in Monte, 2
Bologna

UNIVERSITY COMPLEX BELMELORO

Via Belmeloro, 14
Bologna

AGRICULTURAL AND VETERINARY MEDICINE SCHOOL (AULA MAGNA)

Viale Fanin, 44
Bologna

Social Dinner

SAVOIA HOTEL REGENCY

Via del Pilastro, 2
Bologna

CONVENER

Luca Corelli Grappadelli

SCIENTIFIC COMMITTEE

Stuart Tustin
Gennaro Fazio
Jordi Marsal
Ted DeJong
Richard Bastias
Brunella Morandi
Greg Reighard
Gerardo Lopez
Ben Van Hooijdonk
Dugald Close
Bartolomeo Dichio
Massimo Tagliavini
Paolo Inglese
Pasquale Losciale
Luigi Manfrini
Ed Zurawicz
Jef Vercammen
Jens Wunsche
Stefano Musacchi
Matt Whiting
Todd Einhorn
Wiehann Steyn

ORGANIZING COMMITTEE

Brunella Morandi
Luigi Manfrini
Kushtrim Bresilla
Alexandra Boini
Giulio Demetrio Perulli



PATRONAGE



MAIN PARTNERS



MAIN SUPPORTERS



a s s  m e l a



SUPPORTERS



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