



30 September 2021

International Online Workshop

THE COLOURS AND ANTIOXIDANTS OF FRUITS AND VEGETABLES: WHAT GENES AND HORTICULTURAL PRACTICES CAN DO

Objectives: The General Assembly of UN declared 2021 the Year of Fruits and Vegetables (AIFV). SIGA and SOI organize an international online workshop on the role of antioxidants and pigments contained in fruits and vegetables as important molecules for human nutrition and health.

Participants: The workshop encourages the participation of doctoral students and post-doc fellows who are working in the areas of breeding, biotechnologies, genomics, plant physiology and horticulture of fruits and vegetables, and in relevant crops for agricultural economy and development of rural areas.

Foreword: fruits and vegetables are edible parts of plants and include flowers, blossoms, leaves, fruits, stems, and roots. Features and properties of these organs depend on genes, environmental conditions and horticultural practices. The focus of this workshop is on genetic and environmental regulation of processes underlying quality of fruits and vegetables.

Programme

- 10:15** - Welcoming address: *Edgardo Filippone – President of the Italian Society of Agricultural Genetics (SIGA), Massimo Tagliavini - President of the Italian Horticultural Society (SOI)*
- 10:30** - Plenary Lecture: Bioactives in fruits and vegetables. The versatility of carotenoids in the context of the sustainable production of healthy foods, *Antonio Melendez-Martinez, University of Sevilla, Spain*
- 11:00** - Plenary lecture: A matter of colours: antioxidant pigments and crop domestication, *Giovanni Giuliano ENEA, Centro Ricerche Casaccia, Roma*
- 11:30** - Horticultural practices to manage abiotic stresses in vegetable and fruit tree crops
Giuseppe Colla, Università degli Studi della Tuscia
Boris Basile, Università degli Studi di Napoli Federico II
- 12:00** - Citrus fruits in red: when the clothes do make the man! *Angela Roberta Lo Piero, Università di Catania*
- 12:30** – Discussion



13:00 Break

13:30 - The use of controlled postharvest abiotic stresses and the impact on quality and nutraceuticals in fresh produce *Luis Cisneros Zevallos, Texas A&M University, USA*

14:00 – Poster and oral presentations by young scientists (SIGA and SOI)

Posters are available at: <https://www.soihs.it/content.aspx?idct=3&id=2197>

Short oral presentations

14:00 The colourful flower of *Crocus sativus* L.: a treasure trove of antioxidants. *Stefania Stelluti University of Torino*

14:12 The effect of the light on the control of anthocyanin pigmentation of fruits, flowers, and shoots of Citrus and relative's. *Angelo Ciacciulli CREA, Research Centre for Olive, Citrus and Tree Fruit, Corso Savoia 190, 95024 Acireale*

14:24 Exploring phenotypic variability in a G10 magic population of tomato. *Del Regno C. Research Centre for Vegetable and Ornamental Crops, Monsampolo del Tronto (AP)*

14:36 Structural and functional genomics applied to an anthocyanin-free eggplant genotype for the analysis of colour regulation in peel. *Luciana Gaccione DISAFA, Plant Genetics and Breeding, University of Torino*

14:48 Evaluation of diversity for metabolic composition in a collection of tomato (*Solanum lycopersicum* L.) Sardinian landraces. *Chiara M. Posadinu Department of Agricultural Sciences, University of Sassari*

15:00 DNA methylation dynamics influence pigmentation in sweet orange fruit [*Citrus sinensis* L. (Osbeck)] under cold stress. *Angelo Sicilia, Department of Agriculture, Food and Environment (Di3A), University of Catania*

15:12 New breeding techniques to boost anthocyanin production in potato. *Vincenzo D'Amelia, CNR-IBBR Institute of Biosciences and Bioresources, Via Università' 133, 80055 Portici, Italy*

15:30 - Discussion on poster presentation and Conclusions

