



# 17<sup>th</sup> ISHS Symposium on Processing Tomato

## Symposium provisional program

*This provisional program is subject to changes pending confirmation by all speakers*

### Monday 10 June

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#### Morning

**CONGRESS & SYMPOSIUM JOINT OPENING CEREMONY**

**JONT WITH CONGRESS: THE FUTURE OF FOOD**

Moderator: Jason Fritsch, WPTC President

- **Emerging Trends in Agriculture**, Ryan Avery (Bayer Vegetable Seeds)
- **Reimagining our food systems: accelerating transformation to better sustain our planet and its people**, Magdalena Psuja (TetraPak)

**IRRIGATION MANAGEMENT**

Moderators: Matthew Stewart & Lajos Helyes

- **Experimental and modelling approaches to explore the genetic-induced and water deficit-induced variations in the architectural traits (anatomy and conductivity) of the vasculature in tomato fruit pedicel and pericarp**, Yan Zhao
- **Processing tomatoes under deficit Irrigation in Southern Italy: yield and water use efficiency**, Michele Rinaldi
- **Tertiary Treated Wastewater used for Irrigation of Processing Tomatoes**, Michele Rinaldi
- **Comparative analysis of satellite and on-site sensor-based irrigation recommendations on processing tomato yield**, Jorge Blanco
- **Use of irridesk automatic irrigation system to management deficit irrigation strategies in processing tomato**, Carlos Campillo Torres

#### Afternoon

**AUTOMATION AND PRECISION FARMING, AND RESILIENT CROP MANAGEMENT**

Moderators: Zoltan Pek & Carlos Campillo

- **First results of mechanical direct sowing of processing tomato on biodegradable mulch film**, Domenico Ronga

- **Exploring dynamic management of Nitrogen (N) strategies to enhance N use efficiency and quality in processing tomato**, Vito Aurelio Cerasola
  - **Vegetation indices to monitor water and chlorophyll content of tomato leaves**, Sándor Takács
  - **Agricultural ICT platform "CropScope" achieved water saving and yield increasing**, Norika Oki
  - **Potential for High-Throughput Phenotyping of Industrial Tomatoes for Post-Harvest Quality Assessment: Insights from Linen and Champagne use cases in France**, Alexis Comar
  - **The long-term sustainability of the California processing tomato production; some disturbing observations and potential solutions**, Andrew Watson
- **ALTERNARIA WORKSHOP**  
Moderators: Luca Sandei & Sofia Stilwell
- **Invited speaker : The toxicology of Alternaria toxins**, Thierry Gauthier
  - **Alternaria toxins : risk prevention and control for the tomato food chain**, Léna Dole
  - **Alternaria toxins in processed tomato products: diffusion ability and behavior during industrial processing**, Luca Sandei
  - **Discussion**

## Tuesday 11 June

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### Morning

- **PESTS, PLANT DISEASES AND RESISTANCE BREEDING**  
Moderators: Brenna Aegerter & Patrick Smith
- **Oxyfluorfen: an Excellent Tool for Tomato Volunteer Plants Reduction in Processing Tomatoes**, Cosme Argerich
  - **Evaluation of Trichoderma atroviride to Combat Soil-Borne Pathogens in Processing Tomatoes**, Patrick Smith
  - **Fusarium oxysporum associated with yield decline in Australian processing tomatoes**, Hanyue Feng
  - **Ralstonia solanacearum control: monitoring and containment measures to prevent its spread in Northern Italy tomato processing industry**, Luca Sandei
- **PESTS, PLANT DISEASES AND RESISTANCE BREEDING**  
Moderators: Zach Bagley & Cosme Argerich
- **Evaluation of fungicides and a fumigant for management of Fusarium diseases in the Central Valley of California**, Brenna Aegerter
  - **Host resistance in commercial tomato cultivars to manage Phytophthora infestans**, David Perla
  - **Survival and fungal colonization of the tomato pathogen Athelia rolfsii (syn. Sclerotium rolfsii) in response to organic soil health practices**, Kelley Paugh
  - **Phelipanche – a California re-emergence: Processing tomato industry efforts in the development of contain, control and long term management strategies**, Zach Bagley

## Afternoon

### ANALYSIS AND PRODUCTS

Moderators: David Page & Virginia Fernandez Ruiz

- **Predicting carotenoid concentrations in growing and ripening tomato fruits under varied irrigation and light conditions: results from coupled confocal microscopy and image analysis**, Dario Constantinescu
- **Mid-infrared spectroscopy, a routine tool for improving the quality of processed tomato products**, Matthieu Clerc-Pithon
- **Recent approaches in the HPLC determinations of bioactive compounds from tomatoes**, Daood Hussein
- **Application of Rapid Methods for sensory analysis in tomato products innovation: the case of Salmorejo**, Virginia Fernandez Ruiz
- **Viscosity of tomato-based product can be influence by structural modification of constitutive particles as well as biochemical modification of pectins**, David Page
- **Spray drying of sugar-reduced tomato juice to produce clean-label tomato powder for diabetics**, Robert Thierry Malomar
- **Lycopene as innovative food ingredient according to EU Novel Food Regulation**, Montaña Cámara

### POSTER SESSION (30 POSTERS)

## Wednesday 12 June

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## Morning

### FUNTOMP SESSION

Moderators: Mecit Oztop & Montana Camara

- **Production of a cellulosic fiber from tomato wastes**, Murad Bal
- **Effect of high-pressure homogenization on the quality attributes of a protein enriched tomato leather**, Elif Gokcen Ates
- **Effects of microwave pasteurization on a functional tomato sauce enriched with pea protein and olive powder**, Mecit Oztop
- **The effect of pea protein and RuBisCO on the physicochemical properties of spray-dried tomato powder**, Neriman Ezgi Cifte
- **Enhancing Lycopene Analysis in Microwave-vacuum Dried Tomato Snack Bars by NIR Spectra and Hyperspectral Imaging**, Ozan Tas
- **Improving the Quality of Tomato Products by Using Microwave-Vacuum Drying in a Snack Bar Manufacturing System**, Rasim Gul
- **Valorization of tomato pomace to use it as a substrate in the fermentation**, Ayse Sultan Kurt

### CONGRESS & SYMPOSIUM JOINT CLOSING CEREMONY

## LIST OF POSTERS

### CROP PRODUCTION

- **Image-based production prediction analysis**, José María Vadillo
- **Alternaria species associated with symptomatic leaves and fruits of processing tomatoes in Australia**, Hanyue Feng
- **Pythium species isolated from irrigation water in a processing tomato field in Australia**, Hanyue Feng
- **Life Waste4Green: new zero residue formulations based on botanical extracts**, Juan Ignacio Gutierrez
- **Evaluation of the potential of different microbial treatments in processing tomatoes under abiotic water stress**, Antonio Sanchez
- **Use of precision irrigation for water efficient management in a processing tomato commercial farm**, Carlos Campillo Torres
- **Effect of heat waves in processing tomato yields**, Carlos Campillo Torres
- **Effect of different plant density and deficit irrigation in grafted processing tomato**, Juan Ignacio Macua
- **LIFE ALGAR BBE MicroALGae with ARomatic plants as Biostimulants with Biocide Effect**, Jose Luis Llerena Ruiz
- **Influence of soil variability on tomato production: Insights from ECa-based soil zoning and satellite imagery**, Jorge Blanco
- **Study on soil herbicides for weed control in tomatoes (*Solanum lycopersicum* L.)**, Mariyan Yanev
- **Adaptive Responses of Tomato Plants to Varying Irrigation Levels: Insights into Root Development Efficiency**, Oussama M'hamdi
- **Prediction of tomato quality traits utilizing machine learning models**, Sándor Takács
- **Regulated deficit irrigation to overcome climate change effects enhancing processing tomato fruit quality**, Domenico Ronga
- **Ripening process evaluation of tomatoes treated with different concentrations of 1-MCP ripening inhibitor**, Zsuzsanna Horváth-Mezőfi
- **Insights from utilizing Water Retainer® in the growth and yield of processing tomato seedlings**, Zoltán Pék
- **Distance from hedges slightly influences the antioxidant status of open field tomato genotypes**, Zoltán Pék
- **Mitigation of high temperature stress by foliar application of chitosan in tomato seedlings**, Zoltán Pék
- **Effect of Water Retainer® during seedling period on bioactive components of processing tomato**, Zoltán Pék
- **Smart processing tomato cultivation: precision irrigation system using DSS and LoRaWAN technology**, Luigi Tedone
- **Characterization of a New Type of Resistance Breaking TSWV Strain Isolated from Tomato in Hungary**, Gábor Palotás
- **Experimental Evaluation of Processing Tomato Grown in Agrivoltaic Systems Under Mediterranean Climates in California**, Shamim Ahamed

## **PROCESSING & MARKETS**

- **Assessment of Antioxidant Capacity in Hydrophilic and Lipophilic Components of Spanish Tomato Paste: Exploring the Efficacy of Front-Face Total Fluorescence**, José Riballo
- **Research on phase-change materials for the design of a solar thermal energy storage system for the tomato industry**, Ruben Sanchez
- **How the QUANTM Electric Pump Can Reduce Operational Costs** Greta Straetmans
- **Study for the development of probiotics fermented milk products with fresh pulp or concentrated pulp with prior enzymatic hydrolysis**, M José Riballo
- **Quality characteristics of typical canned cherry tomatoes obtained with direct mechanical sowing of tomato plants on biodegradable mulch film**, Luca Sandei
- **Combined Effect of UV-C Light and Mild Heat on the Lycopene and Beta-carotene Contents of a Functional Tomato Juice**, Rose Daphnee Tchoukouang
- **Tomato Pomace: From a Waste to Novel Food Ingredients**, Nidal Shaban
- **Tomatoes as a pilot of pedagogical knowledge construction in Master programs**, Maria Soledad Hernandez