

Giovanni Gallerani Ph.D.

Fresh fruit process and product, research and development on novel products

- Fresh fruit juice product and process, extraction and finishing procedure, mixing and filling, non thermal stabilization technique (high pressure HPP and pulsed electric field PEF). Orange, apple, pineapple, kiwi, strawberry, raspberry, red currant, pear, peach, mandarin, grapefruit, blueberry, mango, banana, coconut, passion fruit, melon, grapes.
- Fresh cut fruit product and process , peeling and cutting, mixing and packing. Apple, pineapple, kiwi, orange, melon, watermelon, mango, grape, pear, strawberry

Skills

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| • Fresh fruit process and product | • Special package application for |
| • Food biochemistry and physiology research | fresh cut fruit (fruit chunks gentle bagging) |
| • Fresh fruit process engineering (starting from fresh fruit to filling line) | • Fine tuning of non thermal application in fresh juice: HPP and PEF |
| • Fresh fruit machine prototype development | • New product development and launch |
| • Fresh fruit process plant, design and manager: fresh cut and fresh juice | • Quality control and assurance in fresh fruit products |

Recent Awards

Invited main speaker at the Quality and Safety Fresh Cut Produce seminars (Foggia -I-, 2007, Berlin -D-, 2012)

Invited main speaker at Nutrivent : 3Ps challenges : Process, Preservation & Packaging (Lille -F-, 2013)

Invited main speaker at McDonald seminar: Fresh Cut Product Technology (Munich -D-, 2013)

Professional Experience

- University of Bologna (Italy) Fruit Research Assistant Professor. 1989-1991
- Food Science Team Head at the San Michele Agricultural Research Institute (Trento, Italy) with special emphasis dedicated to sensory analysis, food process development.1991-2000. www.fmach.it
- Cofounder of Alintel Srl (Bologna-Italy), power electronics dedicated to food process (microwave power generator, laser application, pulsed electric field). Product application specialist and company manager 2000-2004 www.alintel.it
- Cofounder and Plant Director of Macè srl (established 2000), fresh cut and fresh juice production for major European brands (McDonald's, Autogrill, Compass, KFC).2005-2015. www.macefruit.com

Selected Accomplishments:

- Plant director of fruit fresh cut and juices plant from 2005
 - Team leader in projecting fruit fresh cut and juice plant.
 - Development and launching of 4 new fresh fruit product in the McDonald's fruit bag world, now established in several European country: pineapple spears, nectarine bag, kiwi on a stick (patent pending), melon bag
 - Establishing of the first HPP plant for fruit application in Italy (at Macè). Development of a broad range of fresh fruit juices starting from whole fruit and herbs. Main supplier of European brands in fresh fruit product
 - Development of a patented melon cleaning system to reduce labor in fresh melon process
 - Development of a HPP coconut product to reach 30 days shelf life in cold chain
 - Herbs extraction and stabilization via HPP to produce fruit and herbs new juices concept
 - Research on new non thermal application on fruit juice: pulsed electric field prototype development
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Education

-Bologna University –I-, MS Agricultural Science, Plant Produce 1985

-UC Davis US and Bologna University –I- Ph.D Plant Biochemistry and Physiology, Fruit Postharvest Technology, 1989

-Bologna University, Faculty of Industrial Chemistry, School of Food Chemistry and Technology, Postdoc degree in Food Chemistry and Technology, 1993

Academic publications

G. Gallerani, A. Folchi, G.C. Pratella and P. Cazzola (1992) Superficial scald and concentration change of hydroperoxide in apples stored under ultra-low oxygen at varying CO₂ rates. *Italian J. Food Sci.*, 1: 39-46.

M. Simcic, G. Gallerani, R. Vidrih und J. Hribar (1993) Gehalt an endogenen hydroperoxyden und entstehung der schalenbraune beim apfel. *Besesseres Obst*, 38: 21.

M.V. Piretti, G. Gallerani and G.C. Pratella (1994) Poliphenol fate and superficial scald in apples. *Postharvest Biology and Technology*, 4: 213-224.

G. Gallerani and R.J Romani (1996) Conservation of the alternative oxidase and enhancement of cyanide resistant respiration in suspension-cultured pear fruit cells by inhibitors of macromolecular synthesis. *Physiologia Plantarum*, 98:557-563.

M.V. Piretti, G. Gallerani and U. Brodnik (1996) Polyphenol polymerisation involvement in apple superficial scald. *Postharvest Biology and Technology*, 8, 11-18.

G. Gallerani, G.C. Pratella and P.P. Cazzola (1993) Superficial scald control via low-oxygen treatment timed to peroxide threshold value. *Azione Concertata Europea COST 94, Workshop "Controlled Atmosphere Storage of Fruit and Vegetables"*, Milano 22 e 23 aprile 1993 pp. 51-60.

F. Gasperi, F. Biasioli, G. Gallerani, S. Fasoli, E. Piasentier. Training of a sensory panel for quantitative descriptive analysis of lamb meat. *Italian Journal of Food Science*; 2005, Vol. 17 Issue 3, p25

F. Gasperi, G. Gallerani, A. Boschetti, F. Biasioli, A. Monetti, E. Boscaini, A. Jordan³, W. Lindinger, S. Iannotta. The mozzarella cheese flavour profile: a comparison between judge panel analysis and proton transfer reaction mass spectrometry. *Journal of the Science of Food and Agriculture*, Volume 81, Issue 3, pages 357–363, February 2001

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