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I. PUBLICACIONES (2019 – presente)

Publicaciones en revistas indexadas (ISI)

1. González, A., Ranilla, L.G., **Fuentealba, C.** 2023. Editorial: Advances in plant diversity and its impact on high-nutrition and functional food. Frontiers in Plant Science, 14:1272727. Q1.

2. Funes, C.F., Larach, A., Besoain, X., Serrano, D.D., Hadad, C., Pedreschi, R., Van Nhien, A.N., **Fuentealba, C.** 2023. Active coatings based on oxidized chitin nanocrystals and silk fibroins for the control of anthracnose in 'Hass' avocados. International Journal of Biological Macromolecules, 253: 126673. Q1.

3. Hernández, I., Ponce, E., Vidal, J., Chirinos, R., Campos, D., Pedreschi, R., **Fuentealba, C.** 2023. Metabolomics reveals specific metabolic changes in sweet cherries (*Prunus avium* L.) subjected to postharvest treatment with melatonin after mechanical stress. Horticulturae, 9: 940. Q1.

4. Yin, M.H., Vargas, A.I., **Fuentealba, C.**, Shahid, M.A., Bassil, E., Schaffer, B. 2023. Differences in physiological and biochemical responses to short-term flooding among the three avocado (Persea americana Mill.) races. Plant Physiology and Biochemistry, 196: 925–939. Q1.

5. Ponce, E., Núñez-Lillo, G., Bravo, C., Vidal, J., Tapia-Reyes, P., Meneses, C., Pedreschi, R., **Fuentealba, C.** 2023. Cell wall disassembly, metabolome and transcriptome analysis in sweet cherry fruit with induced surface pitting. Postharvest Biology and Technology, 198: 112262. Q1.

6. Hernández, I., Molina, V., **Fuentealba, C.**, Alvaro, J.E., Defilippi, B.G., Pedreschi, R. 2023. Do rootstocks influence global fruit quality, postharvest performance and metabolite profiles of *Persea americana* cv. Hass? Horticulturae, 9: 184. Q1.

7. Funes, C.F., Bouvier, B., Cézard, C., **Fuentealba, C.**, Jamali, A., Courty, M., Hadad, C., Van Nhien, A.N. 2023. Theoretical and experimental studies of chitin nanocrystals treated with ionic liquid or deep eutectic solvent to afford nanochitosan sheets. Journal of Molecular Liquids, 375: 121350. Q1.
8. **Fuentealba, C.,** Vidal, J., Zulueta, C., Ponce, E., Uarrota, V., Defilippi, B., Pedreschi, R. 2022. Controlled Atmosphere Storage Alleviates Hass Avocado Black Spot Disorder. Horticulturae, 8:369. Q1.

9. Pedreschi, R., Ponce, E., Hernández, I., **Fuentealba, C.,** Urbina, A., González-Fernández, J., Hormaza, J., Campos, D., Chirinos, R., Aguayo, E. 2022. Short vs. Long-distance avocado supply chains: life cycle assessment impact associated to transport and effect of fruit origin and supply conditions chain on primary and secondary metabolites. Foods, 11: 1807. Q1.

10. Nuñez-Lillo, G., Ponce, E., Alvaro, J.E., Campos, D., Meneses, C., Campos-Vargas, R., Carpentier, S., **Fuentealba, C.,** Pedreschi, R. 2022. Proteomics analysis reveals new insights into Surface pitting of sweet cherry cultivars displaying contrasting susceptibility. Journal of Horticultural Science and Biotechnology, 97: 615-625. Q2.

11. Fuentes-Cardenas, I., Cuba-Puma, R., Marcilla-Truyenque, S., Begazo-Gutiérrez, H., Zolla, G., **Fuentealba, C.,** Shetty, K., Gálvez-Ranilla, L. 2022. Diversity of the Peruvian Andean maize (*Zea mays* L.) race Cabanita: polyphenols, carotenoids, in vitro antioxidant capacity, and physical characteristics. Frontiers in Nutrition, 9: 983208. Q2.

12. Hernández, I., Uarrota, V., **Fuentealba, C.,** Paredes, D., Defilippi, B.G., Campos-Vargas, R., Nuñez, G., Carrera, E., Meneses, C., Hertog, M., Pedreschi, R. 2022. Transcriptome and hormone analyses reveals differences in physiological age of 'Hass' avocado fruit. Postharvest Biology and Technology, 185: 111806. Q1.

13. Delgado, N., Olivera, M., Cádiz, F., Bravo, G., Montenegro, I., Madrid, A., **Fuentealba, C.,** Pedreschi, R., Salgado, E., Besoain, X. 2021. Volatile Organic Compounds (VOCs) produced by Gluconobacter cerinus and Hanseniaspora osmophila displaying control effect against table grape- rot pathogens. Antibiotics-Basel, 10: 663. Q1.

14. Gálvez-Ranilla, L., Rios-Gonzales, B.A., Ramírez-Pinto, M.F., **Fuentealba, C.,** Pedreschi, R., Shetty, K. 2021. Primary and Phenolic Metabolites Analyses, In Vitro Health-Relevant Bioactivity and Physical Characteristics of Purple Corn (Zea mays L.) Grown at Two Andean Geographical Locations. Metabolites, 11, 722. Q2.

15. **Fuentealba, C.,** Ejsmentewicz, T., Campos-Vargas, R., Saa, S., Aliaga, O., Chirinos, R., Campos, D., Pedreschi, R. 2021. Cell wall and metabolite

composition of sweet cherry fruits from two cultivars with contrasting susceptibility to surface pitting during storage. Food Chemistry, 342: 128307. Q1.

16. Covarrubias, M.P., Lillo-Carmona, V., Melet, L., Benedetto, G., Andrade, D., Maucourt, M., Deborde, C., **Fuentealba, C.,** Moing, A., Valenzuela, M.L., Pedreschi, R., Miyasaka Almeida, A. 2021. Metabolite fruit profile is altered in response to source–sink imbalance and can be used as an early predictor of fruit quality in nectarine. Frontiers in Plant Science, 11: 604133. Q1.

17. Ponce, E., Alzola, B., Cáceres, N., Gas, M., Ferreira, C., Vidal, J., Chirinos, R., Campos, D., Rubilar, M., Campos-Vargas, R., Pedreschi, R., **Fuentealba, C.** 2021. Biochemical and phenotypic characterization of sweet cherry (Prunus avium L.) cultivars with induced surface pitting. Postharvest Biology and Technology, 175: 111494. Q1.

18. Hernández, I., Uarrota, V., Paredes, D., **Fuentealba, C.,** Defilippi, B.G., Campos-Vargas, R., Meneses, C., Hertog, M., Pedreschi, R. 2021. Can metabolites at harvest be used as physiological markers for modelling the softening behaviour of Chilean “Hass” avocados destined to local and distant markets? Postharvest Biology and Technology, 174: 111457. Q1.

19. Uarrota, V.G., Hernandez, I., Ponce, E., Vidal, J., **Fuentealba, C.,** Defilippi, B.G., Lindh, V., Zulueta, C., Chirinos, R., Campos, D., Pedreschi, R. 2020. Unravelling factors associated with ‘blackspot’ disorder in stored Hass avocado (*Persea americana* Mill) fruit. Journal of Horticultural Science and Biotechnology, 95 (6): 804-815. Q2.

20. Uarrota, V.G., **Fuentealba, C.**, Hernández, I., Defilippi-Bruzzone, B., Meneses, C., Campos- Vargas, R., Lurie, S., Hertog, M., Carpentier, S., Poblete-Echeverría, C., Pedreschi, R. 2019. Integration of proteomics and metabolomics data of early and middle season T Hass avocados under heat treatment. Food Chemistry 289: 512-521. Q1.

21. Gálvez, L., Huamán-Alvino, C., Flores-Báez, O., Aquino-Méndez, E.M., Chirinos, R., Campos, D., Sevilla, R., **Fuentealba, C.**, Pedreschi, R., Sarkar, D., Shetty, K. 2019. Evaluation of phenolic antioxidant-linked in vitro bioactivity of Peruvian corn (*Zea mays* L.) diversity targeting for potential management of hyperglycemia and obesity. Journal of Food Science and Technology 56: 2909–2924. Q2.

22. Pedreschi, R., Uarrota, V., **Fuentealba, C.**, Alvaro, J.E., Olmedo, P., Defilippi, B.G., Meneses, C., Campos-Vargas, R. 2019. Primary Metabolism in Avocado Fruit. Frontiers in Plant Science 10: 795. Q1.

23. Rodríguez, F., Pedreschi, R., **Fuentealba, C.**, de Kartzow, A., Olaeta, J.A., Alvaro, J.E. 2019. The increase in electrical conductivity of nutrient solution

enhances compositional and sensory properties of tomato fruit cv. Patrón. Scientia Horticulturae 244: 388-398. Q1.

II. EXPERIENCIA EN PROYECTOS DE INVESTIGACION (2015 – presente)

Proyectos con fondos concursables

2022-2026. **Investigadora Responsable. FONDECYT REGULAR N°1221616, ANID**. Cell wall remodeling in sweet cherry with surface pitting: an underlying response during cold stress.

2022-2024. **Investigadora Responsable. ECOS210006. Programa de Cooperación Científica ECOS-ANID**. Hydrogels based on biorenewable nano(fibers/crystals) from chitin, cellulose, alginate and silk to save water in chilean agriculture (NanoBioGel).

2018-2022. **Co-Investigador. FONDECYT REGULAR N°1180303, ANID**. Physiological status at harvest: key to predict postharvest ripening behaviour of Chilean Hass avocado.

2019-2021. **Investigadora asociada. Redes de investigación en Biotecnología Chile-Perú REDBIO0001. Programa de Cooperación Internacional, ANID**. Red de investigación Perú-Chile: compartiendo experiencias y desafíos relacionados a la biotecnología vegetal, industrial & bioprocesos.

2017-2020. **Investigador responsable. FONDECYT DE INICIACIÓN EN INVESTIGACIÓN 11170360. Programa de Cooperación Internacional, ANID**. An integrative approach to understand surface pitting in sweet cherries.