

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

Juan-Eugenio Álvaro Martínez-Carrasco

Publicaciones (2017- 2021)

1. Barrientos, C., Mondaca, M., Tamayo, M., **Alvaro, J.E.**, Diaz, A., Cuneo, I.F. 2021. Enhancing the mechanical and hydraulic properties of coarse quartz sand using a water-soluble hydrogel based on bacterial alginate for novel application in agricultural contexts. *Soil Science Society of America Journal*, 85, 1880-1893. Q3.
2. Lindh, V., Uarrota, V., Zulueta, C., **Alvaro, J.E.**, Valdenegro, M., Cuneo, I.F., Mery, D., Pedreschi, R. 2021. Image Analysis Reveals That Lenticel Damage Does Not Result in Black Spot Development but Enhances Dehydration in *Persea americana* Mill. cv. Hass during Prolonged Storage. *Agronomy-Basel*, 11: 9. Q1.
3. Beyer, C., Cuneo, I.F., **Alvaro, J.E.**, Pedreschi, R. 2021. Evaluation of aerial and root plant growth behavior, water and nutrient use efficiency and carbohydrate dynamics for Hass avocado grown in a soilless and protected growing system. *Scientia Horticulturae*, 277: 109830. Q1.
4. Gallegos, J., **Álvaro, J.E.**, Urrestarazu, M. 2020. Container Design Affects Shoot and Root Growth of Vegetable Plant. *Hortscience*, 55: 787-794. Q2.
5. Fabrikov, D., Guil-Guerrero, J.L., González Fernández, M.J., Rodríguez-García, I., Gómez-Mercado, F., Urrestarazu, M., Lao, M.T., Rincón-Cervera, M.A., **Alvaro, J.E.** 2019. Borage oil: Tocopherols, sterols and squalene in farmed and endemic-wild *Borago* species. *Journal of Food Composition and Analysis*: 83: 103299. Q1.
6. Padilla-Medina, J.A., Contreras-Medina, L.M., Urrestarazu, M., Millan-Almaraz, J.R., **Alvaro, J.E.** 2019. Sensors in Precision Agriculture for the Monitoring of Plant Development and Improvement of Food Production. *Journal of Sensors* 219: 7138720. Q2.
7. Pedreschi, R., Uarrota, V., Fuentealba, C., **Alvaro, J.E.**, Olmedo, P., Defilippi, B., Meneses, C., Campos-Vargas, R. 2019. Primary metabolism in avocado fruit. *Frontiers in Plant Sciences* 10: 795. Q1.
8. Urrestarazu, M., Gallegos-Cedillo, V., Ferrón Carrillo, F., Guil-Guerrero, J.L., Lao, M., **Alvaro, J.E.** 2019. Effects of the electrical conductivity of a soilless culture system on gamma linolenic acid levels in borage seed oil. *Plos One* 14: e0207106. Q2.
9. 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.
10. Gallegos, V., **Álvaro, J.E.**, Capatos, T., Hachmann, L., Carrasco, G., Urrestarazu, M. 2018. Effect of pH and silicon in the fertigation solution on vegetative growth of blueberry plants. *Hortscience* 53: 1423-1428. Q2.

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11. Nájera, C., Guil-Guerrero, J.L., Enríquez, L.J., **Álvaro, J.E.**, Urrestarazu, M. 2018. LED-enhanced dietary and organoleptic qualities in postharvest tomato fruit. *Postharvest Biology & Technology* 145: 151-156. Q1.
12. Severino, C., Elizondo, R., **Alvaro, J.E.**, Oyanedel, E. 2017. Planting density and training in grafted indeterminate tomato plants grown under plastic cover. *Horticultura Brasileira* 35: 542-548. Q4.
13. Urrestarazu, M., Carrasco, G., **Álvaro, J.E.** 2017. Design of a Modular Vegetative Unit and Fertigation Management for Noise Abatement Walls in a Semiarid Climate. *Journal of Irrigation and Drainage Engineering* 143: 0-5. Q2.
14. Moya, C., Oyanedel, E., Verdugo, G., Flores, F., Urrestarazu, M., **Álvaro, J.E.** 2017. Increased electrical conductivity in nutrient solution management enhances dietary and organoleptic qualities in soilless culture tomato. *Hortscience* 52: 868-872. Q2.
15. Moya, H., Verdejo, J., Yáñez, C., **Álvaro, J.E.**, Sauvé, S., Neaman, A. 2017. Nitrification and nitrogen mineralization in agricultural soils contaminated by copper mining activities in Central Chile. *Journal of Soil Science and Plant Nutrition* 17: 205-2013. Q1.
16. Urrestarazu, M., Gallegos, V., **Álvaro, J.E.** 2017. The Use of Thermography Images in the Description of the Humidification Bulb in Soilless Culture. *Communications in Soil Science and Plant Analysis* 48: 1595-1602. Q3.

Proyectos con financiamiento externo últimos 5 años (adjudicado y/o ejecutado)

1. Regulation of firmness loss in raspberry fruit: role of annexin and calmodulin and their regulation by abscisic acid, ethylene, and calcium.
Financiamiento: Fondecyt Regular N°1201662, Conicyt
Rol: Co-investigador
Duración: 2019-2022
Año adjudicación: 2019
2. Novel application of LED lighting in growing system for leaf horticultural crops.
Financiamiento: Redes internacionales entre centros de investigación, PCI, Conicyt
Rol: Co-investigador
Duración: 2019-2020
Año de adjudicación: 2019
3. Red de investigación Perú-Chile: compartiendo experiencias y desafíos relacionados a la biotecnología vegetal, industrial & bioprocesos.,
Financiamiento: Programa de Cooperación Internacional PCI, N° redbio0001, Conicyt
Duración: 2019-2020

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Año de adjudicación: 2019

4. Entendiendo la complejidad metabólica y nutricional de frutos en postcosecha: una perspectiva integradora desde la biología de sistemas.
Financiamiento: Programa de Cooperación Internacional PCI, N° REDI170422, Conicyt.
Rol: Co-investigador
Duración: 2017-2019
Año de adjudicación: 2017
5. Modelo de producción sostenible de nuevas especies de borraja para la obtención de aceite funcionales ricos en gamma linolénicos (MOSOSBO).
Financiamiento: Ministerio de Economía y Competitividad (España)
Rol: Co-investigador
Duración: 2015-2018
Año de adjudicación: 2015
6. Changes in organoleptic and nutraceutical properties of tomato fruits as affected by variations in EC value and climatic conditions
Financiamiento: FONDECYT
Rol: Investigador Responsable
Duración: 2014-2017
Año de adjudicación: 2014