

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

**Juan-Eugenio Álvaro Martínez-Carrasco**

**Publicaciones (2016- presente)**

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*, aceptada, 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 JL, González Fernández MJ, Rodríguez-García I, Gómez-Mercado F, Urrestarazu M, Lao MT, Rincón-Cervera MA, **Alvaro JE**. 2019. Borage oil: Tocopherols, sterols and squalene in farmed and endemic-wild *Borago* species. *Journal of Food Composition and Analysis*: 83: 103299. Q2.
6. Padilla-Medina JA, Contreras-Medina LM, Urrestarazu M, Millan-Almaraz JR, **Alvaro JE**. 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 JE**, 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 JL, Lao M, **Alvaro JE**. 2019. Effects of the electrical conductivity of a soilless culture system on gamma linolenic acid levels in borage seed oil. *Plos One* 14: e0207106. Q1.
9. Rodríguez F, Pedreschi R, Fuentealba C, de Kartzow A, Olaeta JA, **Alvaro JE**. 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 JE**, 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.

## DOCTORADO EN CIENCIAS AGROALIMENTARIAS

11. Nájera C, Guil-Guerrero JL, Enríquez LJ, **Álvaro JE**, 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 JE**, Oyanedel E. 2017. Planting density and training in grafted indeterminate tomato plants grown under plastic cover. *Horticultura Brasileira* 35: 542-548. Q3.
13. Urrestarazu M, Carrasco G, **Álvaro JE**. 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. Q3.
14. Moya C, Oyanedel E, Verdugo G, Flores F, Urrestarazu M, **Álvaro JE**. 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 JE**, 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: 205-213. Q2.
16. Urrestarazu M, Gallegos V, **Álvaro JE**. 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. Q4.
17. Gallegos-Cedillo V, Urrestarazu M, **Álvaro JE**. 2016. Influence of salinity on transport of Nitrates and Potassium by means of the xylem sap content between roots and shoots in young tomato plants. *Journal of Soil Science and Plant Nutrition* 16: 991-998. Q2.
18. **Álvaro JE**, Lao MT, Urrestarazu M, Baghour M, Abdelmajid M. 2016. Effect of nutrient solution salinity and ionic concentration on parsley (*Petroselinum crispum* Mill.) essential oil yield and content. *Journal of Plant Nutrition* 39: 1057-1062. Q4.

### Proyectos con financiamiento externo (2016-presente)

1. Núcleo de Investigación en Cambio Climático y Agricultura Protegida.  
Financiamiento: DI-VRIEA, PUCV  
Rol: Co-investigador  
Duración: 2019-2022  
Año adjudicación: 2019
2. 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

## DOCTORADO EN CIENCIAS AGROALIMENTARIAS

3. 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
4. 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  
Año de adjudicación: 2019
5. Growth, nutrient and water consumption and carbohydrate contents of clonally and seed avocado rootstocks with variety *Hass* in a soilless and protected growing system.  
Financiamiento: DI-VRIEA, PUCV  
Rol: Investigador responsable  
Duración: 2019  
Año adjudicación: 2019
6. 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