

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

Ítalo Cuneo Arratia

Publicaciones (2016- presente)

1. Barrientos-Sanhueza, C., Mondaca, P., 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. Reingwartz, I., Uretsky, J., **Cuneo, I.F.**, Knipfer, T., Reyes, C., Walker, M.A., McElrone, A. 2021. Inherent and Stress-Induced Responses of Fine Root Morphology and Anatomy in Commercial Grapevine Rootstocks with contrasting Drought resistance. Plants, 10: 1121.Q1.
4. Rojas, G., Fernandez, E., Whitney, C., Luedeling, E., **Cuneo, I.F.** 2021. Adapting sweet cherry orchards to extreme weather events – Decision Analysis in support of farmers’ investments in central Chile. Agricultural Systems, 187: 103031. Q1.
5. Beyer, C.P., **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.
6. **Cuneo, I.F.**, Barrios-Masias, F., Knipfer, T., Uretsky, J., Reyes, C., Lenain, P., Brodersen, C., Walker, M.A., McElrone, A. 2021. Differences in grapevine rootstock sensitivity and recovery from drought are linked to fine root cortical lacunae and root tip function. New Phytologist, 229: 272-283. Q1.
7. Fernandez E, **Cuneo IF**, Whitney C, Luedeling E. 2020. Prospects of decreasing winter chill for deciduous fruit production in Chile throughout the 21st century. Climatic Change, aceptado. Q1.
8. Alvarado L, Saa S, **Cuneo IF**, Pedreschi R, Morales J, Larach A, Barros W, Besoain X. 2020. A comparison of immediate and short-term defensive responses to Phytophthora species infection in both susceptible and resistant walnut rootstocks. Plant Disease. <https://doi.org/10.1094/PDIS-03-19-0455-RE>. Q1.
9. Morales J, Besoain X, **Cuneo IF**, Larach A, Alvarado L, Cáceres-Mella A, Saa S. 2019. Impact of Nitrogen Fertilization on *Phytophthora cinnamomi* Root-related Damage in *Juglans regia* Saplings. HortScience 54: 2188-2194. Q2.

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10. Fernandez E, **Cuneo IF**, Luedeling E, Alvarado L, Farías D, Saa S. 2019. Starch and hexoses concentrations as physiological markers in dormancy progression of sweet cherry twigs. *Trees* 33: 1187-1201. Q2.
11. Knipfer T, Barrios-Masias F, **Cuneo IF**, Bouda M, Albuquerque P, Brodersen C, Kluepfel DA, McElrone AJ. 2018. Variations in xylem embolism susceptibility under drought between intact saplings of three walnut species. *Tree Physiology* 38: 8; 1180-1192. Q1.
12. Caceres-Mella A, Ribalta-Pizarro C, Villalobos-González L, **Cuneo IF**, Pastenes C. 2018. Controlled water deficit modifies the phenolic composition and sensory properties in Cabernet Sauvignon wines. *Scientia Horticulturae* 237: 105-111. Q1.
13. **Cuneo IF**, T Knipfer, P Mandal, C Brodersen & A McElrone. 2018. Water uptake can occur through woody portions of roots and facilitates localized embolism repair in grapevine. *New Phytologist* 218: 506-516. Q1.
14. Knipfer T, **Cuneo IF**, Mason J, Reyes C, Brodersen C, McElrone A. 2017. Storage compartments for capillary water rarely refill in an intact woody plant. *Plant Physiology* 175: 1649-1660. Q1.
15. **Cuneo IF**, Knipfer T, Brodersen C, McElrone A. 2016. Mechanical failure of fine root cortical cells initiates plant hydraulic decline during drought. *Plant Physiology* 172: 1669-1678. Q1.
16. Knipfer T, **Cuneo IF**, Brodersen C, McElrone A. 2016. In situ visualization of the dynamics in xylem embolism formation and removal in the absence of root pressure: A study on excised grapevine stems. *Plant Physiology* 171: 1024-1036. Q1.

Proyectos con financiamiento externo (2016-presente)

1. Understanding how drought stress affects water uptake capacity at different developmental zones along the length of grapevine fine roots
Financiamiento: Fondecyt de Iniciación
Rol: Investigador responsable
Duración: 2018-2021
Año adjudicación: 2018
2. Rootstocks/scion hydraulic interaction: unraveling the contribution of root apoplastic, symplastic and transcellular water transport pathways on scion physiological performance
Financiamiento: Fondecyt Regular
Rol: Co- investigador
Duración: 2019-2023
Año de adjudicación: 2019



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3. Understanding how abiotic stressors such as drought affect water uptake capacity at different zones along the length of grapevine fine roots.
Financiamiento: DI-PUCV
Rol: Investigador responsable
Duración: 2018
Año adjudicación: 2018

4. Phenological and Social Impacts of Temperature Increase - A Case Study of Two countries (PASIT)
Financiamiento: Federal Ministry of Education and Research (BMBF)
Rol: Co-investigador
Duración: 2017-2020
Año de adjudicación: 2017