

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

Ítalo Cuneo Arratia

Publicaciones (2018- presente)

1. Aris, G., **Cuneo, I.F.**, Pastenes, C., Cáceres-Mella, A. 2022. Anthocyanin Composition in Cabernet Sauvignon Grape Skins: Effect of Regulated Deficit Irrigation in a Warm Climate. *Horticulturae*, 8(9), 796. Q1
2. Peirano-Bolelli, P., Heller-Fuenzalida, F., **Cuneo, I.F.**, Peña-Neira, A., Cáceres-Mella, A. 2022. Changes in the Composition of Flavonols and Organic Acids during Ripening for Three cv. Sauvignon Blanc Clones Grown in a Cool-Climate Valley. *Agronomy* 12: 1357. Q1
3. Barrientos-Sanhueza, C., Cargnino-Cisternas, D., Diaz-Barrera, A., **Cuneo, I.F.** 2022. Bacterial Alginate-Based Hydrogel Reduces Hydro-Mechanical Soil-Related Problems in Agriculture Facing Climate Change. *Polymers* 14:922. Q1.
4. Beyer, C.P., Barrientos-Sanhueza, C., Ponce, E., Pedreschi, R., **Cuneo, I.F.**, Alvaro, J.E. (2022) Differential hydraulic properties and primary metabolism in fine roots of avocado trees rootstocks. *Plants* 11: 1059. Q1.
5. Barrientos, C., Mondaca, P., Tamayo, M., Alvaro, J., 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*. Q3.
6. Salgado, E., Livellara, N., Chaigneau, E., Varas, F., **Cuneo, I.** 2021. Hourly Relationship between Reference Evapotranspiration and Shoot Shrinkage in Walnut Trees and Pomegranate under Deficit Irrigation. *Plants*, 11, 31. Q1.
7. Lindh, V., Uarrota, V., Zulueta, C., Alvaro, J., Valdenegro, M., **Cuneo, I.**, 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.
8. Reingwirtz, I., Uretsky, J., **Cuneo, I.**, Knipfer, T., Reyes, C., Walker, M., 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.
9. Rojas, G., Fernandez, E., Whitney, C., Luedeling, E., **Cuneo, I.** 2021. Adapting sweet cherry orchards to extreme weather events – Decision Analysis in support of farmers’ investments in central Chile. *Agricultural Systems*, 187: 103031. Q1.
10. Beyer, C., **Cuneo, I.**, Alvaro, J., 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.

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11. **Cuneo, I.**, Barrios, F., Knipfer, T., Uretsky, J., Reyes, C., Lenain, P., Brodersen, C., Walker, M., 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.
12. Fernández, E., **Cuneo, I.**, Whitney, C., Luedeling, E. 2020. Prospects of decreasing winter chill for deciduous fruit production in Chile throughout the 21st century. *Climatic Change*, 159: 423-439. Q1.
13. Alvarado, L., Saa, S., **Cuneo, I.**, 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*, 104: 921-929. Q1.
14. Morales, J., Besoain, X., **Cuneo, I.**, Larach, A., Alvarado, L., Cáceres, A., Saa, S. 2019. Impact of Nitrogen Fertilization on *Phytophthora cinnamomi* Root-related Damage in *Juglans regia* Saplings. *HortScience* 54: 2188-2194. Q2.
15. Fernandez, E., **Cuneo, I.**, Luedeling, E., Alvarado, L., Fariás, D., Saa, S.. 2019. Starch and hexoses concentrations as physiological markers in dormancy progression of sweet cherry twigs. *Trees - Structure and Function* 33: 1187-1201. Q2.
16. Knipfer, T., Barrios, F., **Cuneo, I.**, Bouda, M., Albuquerque, P., Brodersen, C., Kluepfel, D., McElrone, A. 2018. Variations in xylem embolism susceptibility under drought between intact saplings of three walnut species. *Tree Physiology* 38: 8; 1180-1192. Q1.
17. Cáceres, A., Ribalta, C., Villalobos, L., **Cuneo, I.**, Pastenes, C. 2018. Controlled water deficit modifies the phenolic composition and sensory properties in Cabernet Sauvignon wines. *Scientia Horticulturae* 237: 105-111. Q1.
18. **Cuneo, I.**, Knipfer, T., Mandal, P., Brodersen, C., McEnroe, A. 2018. Water uptake can occur through woody portions of roots and facilitates localized embolism repair in grapevine. *New Phytologist* 218: 506-516. Q1.

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

1. Unravelling the biophysical modulations of the soil-mucilage-root interface in response to drought and its impact on stomatal responses in different crop species (SoMuRo).
Financiamiento: Fondecyt Regular
Rol: Investigador Responsable
Duración: 2022-2025
Año de adjudicación: 2022.
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



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Duración: 2019-2023

Año de adjudicación: 2019

3. 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