César A. Barrientos Sanhueza

Publicaciones (2021 – presente)

1. Dorochesi, F., **Barrientos-Sanhueza, C.,** Cuneo, I.F. 2025. Surface-applied chia mucilage doubles xylem water potential and cuts evapotranspiration in drought-stressed maize. Rhizosphere. 35:101148. Q1.

2. Dorochesi, F., **Barrientos-Sanhueza, C.,** Zurita-Silva, A., Cuneo, I.F. 2025. Short-term salinity triggers coordinated xerophyte-like hydraulics that preserve quinoa water balance. Theoretical and Experimental Plant Physiology. 37, 47. Q2.

3. **Barrientos-Sanhueza, C.,** Zurita-Silva, A., Knipfer, T., McElrone, A., Cuneo, I.F. 2024. Unique root hydraulic and mechanical properties support the resilience of grapevines adapted to the Atacama Desert. Plant Cell & Environment, 47: 5126-5139. Q1.

4. Dorochesi, F., **Barrientos-Sanhueza, C.,** Díaz-Barrera, Á., Cuneo, I.F. 2023. Enhancing Soil Resilience: Bacterial Alginate Hydrogel vs. Algal Alginate in Mitigating Agricultural Challenges. Gels, 9: 988. Q1.

5. **Barrientos-Sanhueza, C.,** Hormazabal-Pavat, V., Cuneo, I.F. 2023. Extreme drought enhances Opuntia ficus-indica fine root cells elasticity preventing permanent damage. Theoretical and experimental plant physiology, 35: 233–246. Q2.

6. 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.

7. **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.

8. **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.

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