

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

Pablo Cornejo Rivas

Publicaciones (2019 – presente)

1. Nahuelcura, J., Ortega, T., Peña, F., Berríos, D., Valdebenito, A., Contreras, B., Santander, C., **Cornejo, P.**, Ruiz, A. 2023. Antioxidant Response, Phenolic Compounds and Yield of *Solanum tuberosum* Tubers Inoculated with Arbuscular Mycorrhizal Fungi and Growing under Water Stress. *Plants*, 2749142. Accepted. Q1.
2. Silambarasan, S., Logeswari, P., Sivaramakrishnan, R., Incharoensakdi, A., Kamaraj, B., **Cornejo, P.** 2023. *Scenedesmus* sp. strain SD07 cultivation in municipal wastewater for pollutant removal and production of lipid and exopolysaccharides. *Environmental Research*, 218: 115051. Q1
3. Castillo, B., Acuña, E., Sánchez, A., **Cornejo, P.**, Salazar, O., Tapia, Y. 2023. Phytostabilization of trace elements and ¹³C isotope composition of *Atriplex atacamensis* Phil. cultivated in mine tailings treated with organic amendments. *Environmental Monitoring and Assessment*, 195: 354. Q3
4. Peña, F., Valencia, S., Tereucán, G., Nahuelcura, J., Jiménez-Aspee, F., **Cornejo, P.**, Ruiz, A. 2023. Bioactive Compounds and Antioxidant Activity in the Fruit of Rosehip (*Rosa canina* L. and *Rosa rubiginosa* L.). *Molecules*, 28: 3544. Q2.
5. Cayún, Y., Alarcón, S., Tereucán, G., **Cornejo, P.**, Santander, C., Gómez, F., Contreras, B., Ruiz, A. 2023. Effect of Arbuscular Mycorrhizal Fungi Inoculation on the Metabolic Activity of *Solanum tuberosum* Plants Under Fungicide Application. *Journal of Soil Science and Plant Nutrition*, 23: 3623–3639. Q1.
6. González, F., Santander, C., Ruiz, A., Pérez, R., Moreira, J., Vidal, G., Aroca, R., Santos, C., **Cornejo, P.** 2023. Inoculation with Actinobacteria spp. Isolated from a Hyper-Arid Environment Enhances Tolerance to Salinity in Lettuce Plants (*Lactuca sativa* L.). *Plants*, 12: 2018. Q1.
7. Chávez, D., Rivas, G., Machuca, Á., Santos, C., Deramond, C., Aroca, R., **Cornejo, P.** 2023. Contribution of Arbuscular Mycorrhizal and Endophytic Fungi to Drought Tolerance in *Araucaria araucana* Seedlings. *Plants*, 12: 2116. Q1.
8. Fincheira, P., Hoffmann, N., Tortella, G., Ruiz, A., **Cornejo, P.**, Diez, M.C., Seabra, A.B., Benavides-Mendoza, A., Rubilar, O. 2023. Eco-Efficient Systems Based on Nanocarriers for the Controlled Release of Fertilizers and Pesticides: Toward Smart Agriculture. *Nanomaterials*, 13: 1978. Q1.
9. Silambarasan, S., Logeswari, P., Vangnai, A., Pérez, R., Kamaraj, B., **Cornejo, P.** 2023. Co-application of citric acid and *Nocardopsis* sp. strain RA07 enhances phytoremediation potentiality of *Sorghum bicolor* L. *Environmental Science and Pollution Research*, In Press. Q1.
10. Grizante Barião, P.H., Cayún, Y., Sepúlveda, M., Tonani, L., Gonçalves de Almeida, O.G., **Cornejo, P.**, Dias, N., Santos, C., von Zeska Kress, M.R. 2023. MALDI-TOF MS: A Quick Method to Detect

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

the Susceptibility of *Fusarium* spp. Clinical Isolates to Amphotericin B. *Microorganisms*, 11: 1834. Q2.

11. Gómez, F., Bravo, C., Ringler, I., Santander, C., González, F., Viscarra, F., Mardones, C., Contreras, B., **Cornejo, P.**, Ruiz, A. 2023. Evaluation of the Antifungal Potential of Grape Cane and Flesh-Coloured Potato Extracts against *Rhizoctonia* sp. in *Solanum tuberosum* Crops. *Plants*, 12(16): 2974. Q1.
12. Avila-Salem, M.E., Aponte, H., Montesdeoca, F., Urgiles Gómez, N., Cruz, D., Orellana, M., Pacheco, K., Alvarado Ochoa, S., Espinosa, J., Borie, F., **Cornejo, P.** 2023. Noticeable Shifts in Soil Physicochemical and Biological Properties after Contrasting Tillage Management in Crop Rotations of Bean, Maize, and Amaranth in Ecuadorian Highland Soils. *Agronomy*, 13(9): 2260. Q1.
13. Fincheira, P., Espinoza, J., Vera, J., Berrios, D., Nahuelcura, J., Ruiz, A., Quiroz, A., Bustamante, L., **Cornejo, P.**, Tortella, G., Diez, M.C., Benavides-Mendoza, A., Rubilar, O. 2023. The Impact of 2-Ketones Released from Solid Lipid Nanoparticles on Growth Modulation and Antioxidant System of *Lactuca sativa*. *Plants*, 12(17): 3094. Q1.
14. Aponte, H., Sulbaran Bracho, Y., Mondaca, P., Vidal, C., Pérez, R., Meier, S., **Cornejo, P.**, Rojas, C. 2023. Biochemical, Catabolic and PGP Activity of Microbial Communities and Bacterial Strains from the Root-zone of *Baccharis linearis* in a Mediterranean Mine Tailing. *Microorganisms*, 11(11): 2639. Q2.
15. Pérez, R., Tapia, Y., Antilén, M., Ruiz, A., Pimentel, P., Santander, C., Aponte, H., González, F., **Cornejo, P.** 2023. Beneficial Interactive Effects Provided by an Arbuscular Mycorrhizal Fungi and Yeast on the Growth of *Oenothera picensis* Established on Cu Mine Tailings. *Plants*, 12(23): 4012. Q1.
16. Tereucán, G., Ruiz, A., Nahuelcura, J., Oyarzún, P., Santander, C., Winterhalter, P., Ademar Avelar Ferreira, P., **Cornejo, P.** 2022. Shifts in biochemical and physiological responses by the inoculation of arbuscular mycorrhizal fungi in *Triticum aestivum* growing under drought conditions. *Journal of the science of food and agriculture*, 102:1927-1938. Q1.
17. Alarcón, S., Tereucán, G., **Cornejo, P.**, Contreras, B., Ruiz, A. 2022. Metabolic and antioxidant effects of inoculation with arbuscular mycorrhizal fungi in crops of flesh-coloured *Solanum tuberosum* treated with fungicides. *Journal of the science of food and agriculture*, 102: 2270-2280. Q1.
18. Fritz, V., Tereucán, G., Santander, C., Contreras, B., **Cornejo, P.**, Ferreira, P.A.A., Ruiz, A. 2022. Effect of Inoculation with Arbuscular Mycorrhizal Fungi and Fungicide Application on the Secondary Metabolism of *Solanum tuberosum* Leaves. *Plants*, 11(3):278. Q1.
19. Santander, C., Vidal, G., Ruiz, A., Vidal, C., **Cornejo, P.** 2022. Salinity Eustress Increases the Biosynthesis and Accumulation of Phenolic Compounds That Improve the Functional and Antioxidant Quality of Red Lettuce. *Agronomy*, 12(3):598. Q1.

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

20. de Souza Campos, P., Meier, S., Morales, A., Borie, F., **Cornejo, P.**, Ruiz, A., Seguel, A. 2022. Root traits distinguish phosphorus acquisition of two wheat cultivars growing in phosphorus-deficient acid soil. *Rhizosphere*, 22: 100549. Q2.
21. Silambarasan, S., Logeswari, P., Sivaramakrishnan, R., **Cornejo, P.**, Sipahutar, M.K., Pugazhendhi, A. 2022. Amelioration of aluminum phytotoxicity in *Solanum lycopersicum* by co-inoculation of plant growth promoting *Kosakonia radicincitans* strain CABV2 and *Streptomyces corchorusii* strain CASL5. *Science of the total environment*, 832: 154935. Q1.
22. Silambarasan, S., **Cornejo, P.**, Vangnai, A.S. 2022. Biodegradation of 4-nitroaniline by novel isolate *Bacillus* sp. strain AVPP64 in the presence of pesticides. *Environmental Pollution*, 306: 119453. Q1.
23. Silambarasan, S., Logeswari, P., Vangnai, A.S., Kamaraj, B., **Cornejo, P.** 2022. Plant growth-promoting actinobacterial inoculant assisted phytoremediation increases cadmium uptake in *Sorghum bicolor* under drought and heat stresses. *Environmental Pollution*. 307: 119489. Q1.
24. Silambarasan, S., Logeswari, P., Vangnai, A.S., **Cornejo, P.** 2022. *Rhodotorula mucilaginosa* CAM4 improved selenium uptake in *Spinacia oleracea* L. and soil enzymatic activities under abiotic stresses. *Environmental Science and Pollution Research*, 29:89943–89953. Q1.
25. Vidal, C., González, F., Santander, C., Pérez, R., Gallardo, V., Santos, C., Aponte, H., Ruiz, A., **Cornejo, P.** 2022. Management of Rhizosphere Microbiota and Plant Production under Drought Stress: A Comprehensive Review. *Plants*, 11: 2437. Q1.
26. Valdebenito, A., Nahuelcura, J., Santander, C., **Cornejo, P.**, Contreras, B., Gómez-Alonso, S., Ruiz, A. 2022. Physiological and Metabolic Effects on the Inoculation of Arbuscular Mycorrhizal Fungi in *Solanum tuberosum* Crops under Water Stress. *Plants*, 11: 2539. Q1.
27. Costa, J.; Sepúlveda, M.; Gallardo, V.; Cayún, Y.; Santander, C.; Ruíz, A.; Reyes, M.; Santos, C.; **Cornejo, P.**; Lima, N.; Santos, C. 2022. Antifungal Potential of Capsaicinoids and Capsinoids from the *Capsicum* Genus for the Safeguarding of Agrifood Production: Advantages and Limitations for Environmental Health. *Microorganisms*, 10: 2387. Q2.
28. Logeswari, P.; Sivaramakrishnan, R.; Incharoensakdi, A.; Kamaraj, B.; **Cornejo, P.** 2022. *Scenedesmus* sp. strain SD07 cultivation in municipal wastewater for pollutant removal and production of lipid and exopolysaccharides. *Environmental Research*, 218: 115051. Q1.
29. Silambarasan, S., Logeswari, P., Sivaramakrishnan, R., Incharoensakdi, A., **Cornejo, P.**, Kamaraj, B., Lan-Chi, N. 2021. Removal of nutrients from domestic wastewater by microalgae coupled to lipid augmentation for biodiesel production and influence of deoiled algal biomass as biofertilizer for *Solanum lycopersicum* cultivation. *Chemosphere*, 268: 129323. Q1.
30. Pérez, R., Tapia, Y., Antilén, M., Casanova, M., Vidal, C., Santander, C., Aponte, H., **Cornejo, P.** 2021. Interactive effect of compost application and inoculation with the fungus *Claroideoglomus claroideum* in *Oenothera picensis* plants growing in mine tailings. *Ecotoxicology and Environmental Safety*, 208: 111495. Q1.

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

31. De Souza, P., Borie, F., **Cornejo, P.**, López, J., López, A., Seguel, A. 2021. Wheat root trait plasticity, nutrient acquisition and growth responses are dependent on specific arbuscular mycorrhizal fungus and plant genotype interactions. *Journal of Plant Physiology*, 256: 153297. Q1.
32. Ercoli, S., Cartes, J., **Cornejo, P.**, Tereucán, G., Winterhalter, P., Contreras, B., Ruiz, A. 2021. Stability of phenolic compounds, antioxidant activity and colour parameters of a coloured extract obtained from coloured-flesh potatoes. *LWT Food Science and Technology*, 136(2): 110370. Q1.
33. Santander, C., Aroca, R., Cartes, P., Vidal, G., **Cornejo, P.** 2021. Aquaporins and cation transporters are differentially regulated by two arbuscular mycorrhizal fungi strains in lettuce cultivars growing under salinity conditions. *Plant Physiology and Biochemistry*, 158:396-409. Q1.
34. Ercoli, S., Parada, J., Bustamante, L., Hermosín, I., Contreras, B., **Cornejo, P.**, Ruiz, A. 2021. Noticeable Quantities of Functional Compounds and Antioxidant Activities Remain after Cooking of Colored Fleshed Potatoes Native from Southern Chile. *Molecules*, 26: 314. Q2.
35. Silambarasan, S., Logeswari, P., Sivaramakrishnan, R., Pugazhendhi, A., Kamaraj, B., Ruiz, A., Ramadoss, G., **Cornejo, P.** 2021. Polyhydroxybutyrate production from ultrasound-aided alkaline pretreated finger millet straw using *Bacillus megaterium* strain CAM12. *Bioresource Technology*, 325: 124632. Q1.
36. Vidal, C., Larama, G., Riveros, A., Meneses, C., **Cornejo, P.** 2021. Main Molecular Pathways Associated with Copper Tolerance Response in *Imperata cylindrica* by De novo Transcriptome Assembly. *Plants*, 10: 357. Q1.
37. Tereucan, G., Ercoli, S., **Cornejo, P.**, Winterhalter, P., Contreras, B., Ruiz, A. 2021. Stability of antioxidant compounds and activities of a natural dye from coloured-flesh potatoes in dairy foods. *LWT-Food Science and Technology*, 144:111252. Q1.
38. Aponte, H., Mondaca, P., Santander, C., Meier, S., Paolini, J., Buttler, B., Rojas, C., Diez, C., **Cornejo, P.** 2021. Enzyme activities and microbial functional diversity in metal(loid) contaminated soils near to a copper smelter. *Science of the total environment*, 779: 146423. Q1.
39. Aguilera, P., Romero, J., Becerra, N., Martínez, O., Vilela, R., Borie, F., **Cornejo, P.**, Alvear, M., López, M. 2021. Phenological Stages and Aluminum Presence Influences Arbuscular Mycorrhizal Fungi Communities in Roots of Plant Cereals. *Journal of Soil Science and Plant Nutrition*, 21:1467-1473. Q1.
40. Santander, C., García, S., Moreira, J., Aponte, H., Araneda, P., Olave, J., Vidal, G., **Cornejo, P.** 2021. Arbuscular Mycorrhizal Fungal Abundance in Elevation Belts of the Hyperarid Atacama Desert. *Fungal Ecology*, 51: 101060. Q2.
41. Medina, J., Calabi, M., Aponte, H., Santander, C., Paneque, M, Meier, S., Panettieri, M., **Cornejo, P.**, Borie, F., Knicker, H. 2021. Utilization of inorganic nanoparticles and biochar as additives of

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

agricultural waste composting: Effects of end-products on plant growth, C and nutrient stock in soils from a Mediterranean region. *Agronomy*, 11: 767. Q1.

42. Silambarasan, S., Logeswari, P., Sivaramakrishnan, R., Kamaraj, B., Thuy Lan Chi, N., **Cornejo, P.** 2021. Cultivation of *Nostoc* sp. LS04 in municipal wastewater for biodiesel production and their deoiled biomass cellular extracts as biostimulants for *Lactuca sativa* growth improvement. *Chemosphere*, 280: 130644. Q1.
43. Urgiles, N., Avila, M., Loján, P., Encalada, M., Hurtado, L., Araujo, S., Collahuazo, Y., Guachanamá, J., Poma, N., Granda, K., Robles, A., Senés, C., **Cornejo, P.** 2021. Plant Growth-Promoting Microorganisms in Coffee Production: From Isolation to Field Application. *Agronomy*, 11: 1531. Q1.
44. Pérez, R., Tapia, Y., Antilén, M., Casanova, M., Vidal, C., Silambarasan, S., **Cornejo, P.** 2021. Rhizosphere management for phytoremediation of copper mine tailings. *Journal of Soil Science and Plant Nutrition*, 21:3091-3109. Q1.
45. Nahuelcura, J., Ruiz, A., Gomez, F., **Cornejo, P.** 2021. The effect of arbuscular mycorrhizal fungi on the phenolic compounds profile, antioxidant activity and grain yields in wheat cultivars growing under hydric stress. *Journal of the Science of Food and Agriculture*, 102: 407-416. Q1.
46. Seguel, A., Meier, S., Azcón, R., Valentine, A., Meriño, C., **Cornejo, P.**, Aguilera, P., Borie, F. 2020. Showing their mettle: Extraradical mycelia of arbuscular mycorrhizae form a metal filter to improve host Al tolerance and P nutrition. *Journal of the Science of Food and Agriculture*, 100(2): 803-810. Q1.
47. Medina, J., Monreal, C., Orellana, L., Calabi, M., González, M., Meier, S., Borie, F., **Cornejo, P.** 2020. Influence of saprophytic fungi and inorganic additives on enzyme activities and chemical properties of the biodegradation process of wheat straw for the production of organo-mineral amendments. *Journal of Environmental Management*, 255:109922. Q1.
48. Ruiz, A., García, S., Aroca, R., Cumming, J., **Cornejo, P.** 2020. Efficiency of two arbuscular mycorrhizal fungal inocula to improve saline stress tolerance in lettuce plants by changes of antioxidant defense mechanisms. *Journal of the Science of Food and Agriculture*, 100: 1577-1587. Q1.
49. Chávez, D., Machuca, A., Fuentes, A., Fernández, N., **Cornejo, P.** 2020. Shifts in soil traits and arbuscular mycorrhizal symbiosis represent the conservation status of *Araucaria araucana* forests and the effects after fire events. *Forest Ecology and Management*, 458: 117806. Q1.
50. Aguilera, A., Tereucán, G., Ercoli, S., **Cornejo, P.**, Rodríguez, M., Uhlmann, L., Guigas, C., Esatbeyoglu, T., Ruiz, A. 2020. Influence of organic and traditional fertilization on antioxidant compounds profiles and activities in fruits of *Fragaria ananassa* var. Camarosa. *Journal of Soil Science and Plant Nutrition*, 20: 715-724. Q1.

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

51. Tapia, Y., Loch, B., Castillo, B., Acuña, E., Casanova, M., Salazar, O., **Cornejo, P.**, Antilén, M. 2020. Accumulation of sulfur in *Atriplex nummularia* cultivated in mine tailings and effect of organic amendments addition. *Water Air & Soil Pollution*, 231(1): 8. Q2.
52. Medina, J., Monreal, C., Antilén, M., Calabi, M., Velasco, M., Meier, S., Borie, F., **Cornejo, P.**, Knicker, H. 2020. Influence of inorganic additives on wheat straw composting: characterization and structural composition of organic matter derived from the process. *Journal of Environmental Management*, 260: 110137. Q1.
53. Pfeiffer, M., Padarian, J., Osorio, R., Bustamante, N., Olmedo, G., Guevara, M., Aburto, F., Antilén, M., Araya, E., Arellano, E., Barret, M., Barrera, J., Boeckx, P., Briceño, M., Bunning, S., Cabrol, L., Casanova, M., **Cornejo, P.**, Corradini, F., Curaqueo, G., Doetterl, S., Durán, P., Escudey, M., Espinoza, A., Francke, S., Fuentes, J., Fuentes, M., Gajardo, G., García, R., Gallaud, A., Galleguillos, M., Gómez, A., Hidalgo, M., Ivelic, J., Mashalaba, L., Matus, F., Mora, M., Mora, J., Muñoz, C., Norambuena, P., Olivera, C., Ovalle, C., Panichini, M., Pauchard, A., Pérez, J., Radic, S., Ramírez, J., Riveras, N., Ruiz, G., Salazar, O., Salgado, I., Seguel, O., Sepúlveda, M., Sierra, C., Tapia, Y., Toledo, B., Torrico, J., Valle, S., Vargas, R., Wolff, M., Zagal, E. 2020. CHLSOC: The Chilean Soil Organic Carbon database, a multi-institutional collaborative effort. *Earth System Science Data*, 12(1):457-468. Q1.
54. Aponte, H., Herrera, W., Cameron, C., Black H., Meier, S., Paolini, J., Tapia, Y., **Cornejo, P.** 2020. Alteration of enzyme activities and functional diversity of a soil contaminated with copper and arsenic. *Ecotoxicology and Environmental Safety*, 192: 110264. Q1.
55. Aponte, H., Medina, J., Butler, B., Meier, S., **Cornejo, P.**, Kuzyakov, Y. 2020. Soil quality indices for metal(loid) contamination: An enzymatic perspective. *Land Degradation and Development*, 31:2700-2719. Q2.
56. Aponte, H., Meli, P., Butler, B., Paolini, J., Matus, F., Merino, C., **Cornejo, P.**, Kuzyakov, Y. 2020. Meta-analysis of heavy metal effects on soil enzyme activities. *Science of the Total Environment*, 737: 73. Q1.
57. Ávila, M., Montesdeoca, F., Orellana, M., Pacheco, K., Alvarado, S., Becerra, N., Marín, C., Borie, F., Aguilera, P., **Cornejo, P.** 2020. Soil Biological Properties and Arbuscular Mycorrhizal Fungal Communities of Representative Crops Established in the Andean Region from Ecuadorian Highlands. *Journal of Soil Science and Plant Nutrition*, 20: 2156-2163. Q1.
58. Merino, C., Kuzyakov, Y., Godoy, K., **Cornejo, P.**, Matus, F. 2020. Synergy effect of peroxidases enzymes and Fenton reactions greatly increase the anaerobic oxidation of soil organic matter. *Scientific Reports*, 10:11289. Q2.
59. Silambarasan, S., Logeswari, P., Ruiz, A., **Cornejo, P.**, Kannan, V. 2020. Influence of plant beneficial *Stenotrophomonas rhizophila* strain CASB3 on the degradation of diuron-contaminated saline soil and improvement of *Lactuca sativa* growth. *Environmental Science and Pollution Research*, 27:35195-35207. Q1.

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

60. Oyarzún, P., **Cornejo, P.**, Góme, S., Ruiz, A. 2020. Influence of Profiles and Concentrations of Phenolic Compounds in the Coloration and Antioxidant Properties of *Gaultheria poeppigii* Fruits from Southern Chile. *Plant Foods for Human Nutrition*, 75(4):532-539. Q1.
61. Silambarasan, S., Logeswari, P., Valentine, A., **Cornejo, P.**, Kannan, V. 2020. *Pseudomonas citronellolis* strain SLP6 enhances the phytoremediation efficiency of *Helianthus annuus* in copper contaminated soils under salinity stress. *Plant and Soil*, 457: 241-253. Q1.
62. Vidal, C., Ruiz, A., Ortiz, J., Larama, G., Perez, R., Santander, C., Avelar, P., **Cornejo, P.** 2020. Antioxidant responses of phenolic compounds and immobilization of copper in *Imperata cylindrica*, a plant with potential use for bioremediation of Cu contaminated environments. *Plants*, 9(10): 1397. Q1.
63. Montesdeoca, F., Ávila, M., Quishpe, J., Borie, F., **Cornejo, P.**, Aguilera, P., Alvarado, S., Espinosa, J. 2020. Early changes in the transition from conventional to no-tillage in a volcanic soil cultivated with beans (*Phaseolus vulgaris* L.). *Chilean Journal of Agricultural and Animal Sciences (Agrociencia)*, 36: 181-189. Q4.
64. Silambarasan, S., Logeswari, P., **Cornejo, P.**, Kannan, V. 2019. Evaluation of the production of exopolysaccharide by plant growth promoting yeast *Rhodotorula* sp. strain CAH2 under abiotic stress conditions. *International Journal of Biological Macromolecules*, 121:55-62. Q1.
65. Parada, J., Valenzuela, T., Gómez, F., Tereucán, G., García, S., **Cornejo, P.**, Winterhalter, P., Ruiz, A. 2019. Effect of fertilization and arbuscular mycorrhizal fungal inoculation on antioxidant profiles and activities in *Fragaria ananassa* fruit. *Journal of the Science of Food and Agriculture*, 99:1397-1404. Q1.
66. Ruiz, A., Sanhueza, M., Gómez, F., Tereucán, G., Valenzuela, T., García, S., **Cornejo, P.**, Hermosín, I. 2019. Changes on the content of anthocyanins, flavonols and antioxidant activity in *Fragaria ananassa* var. *camarosa* fruits under traditional and organic fertilization. *Journal of the Science of Food and Agriculture*, 99:2404-2410. Q1.
67. Santander, C., Sanhueza, M., Olave, J., Borie, F., Valentine, A., **Cornejo, P.** 2019. Arbuscular Mycorrhizal Colonization Promotes the Tolerance to Salt Stress in Lettuce Plants through an Efficient Modification of Ionic Balance. *Journal of Soil Science and Plant Nutrition*, 19: 321-331. Q1.
68. **Borie, F.**, Aguilera, P., Castillo, C., Valentine, A., Seguel, A., Barea, J., **Cornejo, P.** 2019. Revisiting the nature of phosphorus pools in Chilean volcanic soils as a basis for arbuscular mycorrhizal management in plant P acquisition. *Journal of Soil Science and Plant Nutrition*, 19: 390-401. Q1.
69. Silambarasan, S., Logeswari, P., **Cornejo, P.**, Abraham, J., Valentine, A. 2019. Simultaneous mitigation of aluminum, salinity and drought stress in *Lactuca sativa* growth via formulated plant growth promoting *Rhodotorula mucilaginosa* CAM4. *Ecotoxicology and Environmental Safety*, 180: 63-72. Q1.

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

70. Campos, P., **Cornejo, P.**, Rial, C., Borie, F., Varela, R., Seguel, A., López, J. 2019. Phosphate acquisition efficiency in wheat is related to root:shoot ratio, strigolactone levels, and PHO2 regulation. *Journal of Experimental Botany*, 70(20): 5631–5642. Q1.
71. Silambarasan, S., Logeswari, P., Valentine, A., **Cornejo, P.** 2019. Role of *Curtobacterium herbarum* strain CAH5 on aluminum bioaccumulation and enhancement of *Lactuca sativa* growth under aluminum and drought stresses. *Ecotoxicology and Environmental Safety*, 183:109573. Q1.
72. Silambarasan, S., Logeswari, P., **Cornejo, P.**, Kannan, V. 2019. Role of plant growth-promoting rhizobacterial consortium in improving the *Vigna radiata* growth and alleviation of aluminum and drought stresses. *Environmental Science and Pollution Research*, 26:27647-27659. Q1.
73. Griebenow, S., Zuñiga, A., Muñoz, G., Cornejo, P., Kleinert, A., Valentine, A. 2019. Photosynthetic metabolism during phosphate limitation in a legume from the Mediterranean-type Fynbos ecosystem. *Journal of Plant Physiology*, 243: 153051. Q1.

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

1. Obtención de pigmentos de papas coloreadas para su uso como colorante de alimentos procesados.
Financiamiento: FIA code PYT-2016-0674
Rol: Director alterno
Duración: 2017-2019
Año adjudicación: 2017
2. Development of climate-resilient bio-inoculants of plant growth promoting yeast to improve the production of horticultural crops in La Araucanía Region.
Financiamiento: FONDECYT Postdoctorado 3170123
Rol: Supervisor
Duración: 2017-2020
Año adjudicación: 2017
3. Efecto de las asociaciones vegetales y de la incidencia de incendios forestales sobre las comunidades de hongos micorrícicos arbusculares asociados a la rizosfera de *Araucaria araucana*.
Financiamiento: FONDECYT Postdoctorado 3170089
Rol: Supervisor
Duración: 2017-2020
Año Adjudicación: 2017
4. Influence of drought on the efficiency of arbuscular mycorrhizal symbiosis in phosphorus acquisition by plants growing in Andisols from Southern Chile: wheat as a crop model.
Financiamiento: FONDECYT Regular 1170264
Rol: Investigador responsable
Duración: 2017-2021
Año adjudicación: 2017

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

5. Contribution of native bacteria and fungi to alleviate stress in soil degraded by heavy metals and drought: evaluation of plant growth promotion, tolerance mechanisms and rhizosphere interactions.
Financiamiento: FONDECYT Regular 1170931
Rol: Co-investigador
Duración: 2017-2021
Año adjudicación: 2017
6. Sustainable management of mining tailings using native plants and biofertilizers to recover the landscape, mitigate the socioenvironmental impact and create bases for its valorization.
Financiamiento: ACM170002 Anillos de Investigación en Ciencia y Tecnología en tópicos de Minería.
Rol: Investigador principal
Duración: 2018-2021
Año adjudicación: 2017
7. How precedent non-mycorrhizal crops affect soil P bioavailability, physiological root traits, and mycorrhizal symbiosis of wheat in a rotation system in volcanic soils of Chile.
Financiamiento: FONDECYT Regular 1191551
Rol: Co-investigador
Duración: 2019-2022
Año adjudicación: 2019
8. Can the directed inoculation of arbuscular mycorrhizal fungi modify the profiles and quantity of antioxidant compounds in flesh-colored potatoes cropped under drought and P starvation conditions?
Financiamiento: FONDECYT Regular 1190585
Rol: Co-investigador
Duración: 2019-2023
Año adjudicación: 2019
9. Centro de Recursos Hídricos para la Agricultura y Minería, CRHIAM.
Financiamiento: ANID/FONDAP/15130015
Rol: Investigador asociado
Duración: 2019-2023
Año adjudicación: 2018
10. Obtención de líneas de papas ricas en proteínas de origen vegetal y antioxidantes como superalimento.
Financiamiento: CORFO Súmate a Innovar 20SN-139512
Rol: Investigador co-responsable
Duración: 2020-2021
Año adjudicación: 2020
11. How the management of rhizosphere microbiota can enhance plant production under drought stress: Developing a scientific basis for the design of next generation biofertilizers.
Financiamiento: FONDECYT Regular 1210964
Rol: Investigador responsable

DOCTORADO EN CIENCIAS AGROALIMENTARIAS

Duración: 2021-2025
Año adjudicación: 2021

- 12.** Interacción biotecnología-ambiente-agricultura para la mitigación del cambio climático: Hacia la sustentabilidad productiva y resiliencia de los recursos naturales.
Financiamiento: InES19-VRIP-UFRO
Rol: Director general
Duración: 2021-2023
Año adjudicación: 2021
- 13.** Tecnologías, metodologías CRHIAM, y guía de buenas prácticas para la sostenibilidad hídrica de las industrias mineras y agrícolas.
Financiamiento: ANID FONDE de Sequía ANID/FSEQ210002
Rol: Investigador Asociado.
Duración: 2022-2023.
Año adjudicación: 2021
- 14.** Development of a biofungicide from pod extracts of *Capsicum annuum* L. to prevent mycotoxigenic fungi in wheat production.
Financiamiento: FONDECYT Regular 1221024
Rol: Co-Investigador
Duración: 2022-2026
Año adjudicación: 2022
- 15.** Búsqueda de lípidos de hongos antárticos y evaluación de su potencial actividad antifúngica contra hongos patógenos humanos.
Financiamiento: INACH Regular RT_16_20.
Rol: Coinvestigador
Duración: 2021-2023
Año adjudicación: 2020
- 16.** Ecological intensification of agriculture: supporting transition to sustainable agri-food systems resilient to climate change
Financiamiento: ANID Programa de Fortalecimiento Centros Regionales Código R23F0003
Rol: Investigador Principal
Duración: 2023-2026
Año adjudicación: 2023