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EDUCATION

Ph.D. in Agricultural Sciences. Emphasis in Soil Fertility and Plant Nutrition National University of Mar del Plata, Argentina. <i>Thesis:</i> Evaluation of sulfur availability diagnostic methods in maize.	2014 - 2017
B.S. in Agronomy National University of Mar del Plata, Argentina. <i>Thesis:</i> Sulfur effects on nitrogen use efficiency in wheat.	2008-2013

PROFESSIONAL EXPERIENCE

Assistant Researcher National Scientific and Technical Research Council, Argentina	2022-PRESENT
Assistant Professor National University of Mar del Plata, Argentina	2019-PRESENT
Research assistant Professor University of Nebraska–Lincoln. USA	2024-PRESENT
Postdoctoral Research Associate University of Nebraska–Lincoln. USA	2023
Visiting Faculty University of Nebraska–Lincoln. USA	2022-2023
Subsecretary of Extension National University of Mar del Plata, Argentina	2020- 2022
Postdoctoral Fellow National Scientific and Technical Research Council, Argentina.	2018-2022
Postdoctoral Fellow Kansas State University, USA	2018-2019
Graduate Teaching Assistant. National University of Mar del Plata, Argentina	2014 - 2019
Undergrad Researcher Scientific Research Commission of Buenos Aires	2011-2012

TEACHING EXPERIENCE

Guest Lecturer <i>Graduate Course:</i> Biochemistry and microbiology of soils. National University of Mar del Plata	2020-2024
Assistant Professor <i>Graduate Course:</i> Soil fertility and fertilizer use. National University of Mar del Plata	2019-2021
Assistant Professor <i>Undergraduate Course:</i> Edaphology National University of Mar del Plata	2019-2023
Graduate Teaching Assistant <i>Undergraduate Course:</i> Edaphology National University of Mar del Plata	2014 - 2019
Graduate Teaching Assistant <i>Undergraduate Course:</i> Introduction to Production Systems National University of Mar del Plata.	2014

SCIENTIFIC PUBLICATIONS (Total of 49; 906 citations; h-index: 14)

1. Bonfanti, L., Sazon, L. A., Specht, J. E., Howard, R., **Carciochi, W. D.**, Grassini, P., Linnquist, J. L., Andrade, J. F., & Cafaro La Menza, N. (2025). Soybean seed yield distribution within the canopy as affected by nitrogen supply. *Crop Science*, 65(2), e70033. <https://doi.org/10.1002/csc2.70033>
2. Maltese, N. E., **Carciochi, W. D.**, Caviglia, O. P., Iglesias, M. P., & Reussi Calvo, N. I. (2025). Greenness index profile in maize canopy: Implications for crop N status diagnosis. *Field Crops Research*, 325, 109824. <https://doi.org/10.1016/j.fcr.2025.109824>
3. Salvagiotti, F., Caviglia, O., Bacigaluppo, S., Barraco, M., Boero, L., Biassoni, M., Enrico, J., Kehoe, E., Ecclesia, R. P., Madias, A., Maltese, N., Melchiori, R., Novelli, L., Prieto, G., Ross, F., Ruiz, A., & **Carciochi, W.** (2025). Response to nitrogen fertilization of late-sown maize upon different winter previous crops. *European Journal of Agronomy*, 166, 127566. <https://doi.org/10.1016/j.eja.2025.127566>
4. Tovar Hernández, S., Salvagiotti, F., Lewczuk, N., **Carciochi, W.**, Hernandez Guijarro, K., Biassoni, M., Kehoe, E., Avila, O., Garcia, G., Toribio, M., García, F., Sainz Rozas, H., & Reussi Calvo, N. (2025). Are gaseous nitrogen losses affected by the fertilizer type and rate in maize? *Soil and Tillage Research*, 251, 106519. <https://doi.org/10.1016/j.still.2025.106519>
5. **Carciochi, W. D.**, Dobermann, A., Cafaro La Menza, N., Brouder, S. M., Donough, C. R., Heuschele, D. J., Oberthür, T., Sandaña, P., Shehu, B. M., Pereira, J. T. S., Soratto, R. P., Volenec, J. J., Wandri, R., Wang, Y., Win, S. S., He, P., & Grassini, P. 2025. Quantifying potassium requirement and removal across crop species. *Field Crops Research*, 322, 109717. <https://doi.org/10.1016/j.fcr.2024.109717>
6. Cafaro La Menza, F.; Salvagiotti, F., Maltese, N. E., Ecclesia, R. P., Barraco, M., Echarte, L., Barbieri, P. A., & **Carciochi, W. D.** 2025. New insights to understand the influence of hairy vetch on maize yield and its response to nitrogen application. *European Journal of Agronomy*, 162, 127434. <https://doi.org/10.1016/j.eja.2024.127434>

7. **Carciochi, W. D.**, Gabriel, J. L., & Wyngaard, N. 2024. Editorial: Cover crops and green manures: providing services to agroecosystems. *Frontiers in Soil Science*, 4, 1518511. <https://doi.org/10.3389/fsoil.2024.1518511>
8. **Carciochi, W. D.**, Ferrari, J. L., Orden, L., & Galantini, J. A. 2024. Pelletized Organomineral vs. Inorganic Nitrogen and Phosphorus Fertilizers: Impact on Wheat Nutritional Status, Productivity, and Grain Quality. *Journal of Soil Science and Plant Nutrition*. <https://doi.org/10.1007/s42729-024-02045-9>
9. **Carciochi, W. D.**, Boutell, J. C., García, G. V., Diovisalvi, N. V., Wyngaard, N., Oliveira, A. L., & Calvo, N. I. R. 2024. Gypsum form and rate can affect soil physicochemical properties and crop productivity in soils of low electrical conductivity that have been enriched by sodium due to supplementary irrigation. *Soil Research*. <https://doi.org/10.1071/SR24050>
10. Rodríguez, M. P., Carcedo, A. J. P., Correndo, A. A., Crespo, C., **Carciochi, W. D.**, Sainz Rozas, H. R., Ciampitti, I. A., & Barbieri, P. A. 2024. Assessing the nitrogen supply of hairy vetch in a soybean-wheat sequence. *Field Crops Research*, 316, 109496. <https://doi.org/10.1016/j.fcr.2024.109496>
11. Barbieri, P. A., Crespo, C., Wyngaard, N., Eyherabide, M., Martínez Cuesta, N., Reussi Calvo, N. I., Sainz Rozas, H. R., Pablo Angelini, H., **Carciochi, W.**, Gudelj, V., Espósito Goya, G. P., Salvagiotti, F., Ferraris, N. G., Sánchez, H., Ventimiglia, L., & Torrens Baudrix, L. 2024. Exploring maize grain yield response to boron fertilization in Mollisols: Critical thresholds and predictive models. *Journal of Plant Nutrition and Soil Science*. <https://doi.org/10.1002/jpln.202400011>
12. Maltese, N.E.; **W.D. Carciochi**; O.P. Caviglia; H.R. Sainz Rozas; M. García; A. Lapaz; I.A. Ciampitti; N.I. Reussi Calvo. 2024. Assessing the effect of split and additional late N fertilisation on N economy of maize. *Field Crops Research*. <https://doi.org/10.1016/j.fcr.2024.109279>
13. Okada, E.; Young, B.J.; Perez, D.J.; Pellegrini, M.C.; **Carciochi, W.D.**; Lavallen, C.M.; Ponce, A.G.; Dopchiz, M.C.; Hernandez Guijarro, K.; Franco, M.R.; Di Martino, A.M.; Rizzo, P.F. 2024. Effect of on-farm poultry litter composting processes on physicochemical, biological, and toxicological parameters and reduction of antibiotics and antibiotic-resistant *Escherichia coli*. *Waste Management*. <https://doi.org/10.1016/j.wasman.2023.12.005>
14. Cafaro La Menza, F., **W.D. Carciochi**. 2023. Catch crops in the Argentinean Pampas: A synthesis-analysis on nutrient characteristics and their implications for a sustainable agriculture. *Frontiers in Agronomy*. 5, 1244057. <https://doi.org/10.3389/fagro.2023.1244057>
15. Rodríguez, M. P.; J. Vargas; A.A. Correndo; A.J.P. Carcedo; **W.D. Carciochi**; H.R. Sainz Rozas; P.A. Barbieri; I.A. Ciampitti. 2023. A meta-analysis of hairy vetch as a previous cover crop for maize. *Heliyon*, 9(12), e22621. <https://doi.org/10.1016/j.heliyon.2023.e22621>
16. **Carciochi W.D.**; P. Grassini; S. Naeve.; J.E. Specht; M. Mamo; R. Seymour; A. Nygren; N. Mueller; S. Sivits; C. Proctor; J. Rees; T. Whitney; N. Cafaro La Menza. 2023. Irrigation increases on-farm soybean yields in water-limited environments without a trade-off in seed protein concentration. *Field Crops Research*. <https://doi.org/10.1016/j.fcr.2023.109163>
17. **Carciochi, W.D.**; Cafaro La Menza, F.; Crespo, C.; Dominguez, G.; Rodríguez, M.P.; Reussi Calvo, N.I.; Wyngaard, N.; Sainz Rozas, H.R.; Studdert, G.; Barbieri, P. 2023. Analysis of factors controlling maize yield response to hairy vetch and to nitrogen fertilization after hairy vetch. *Field Crops Research*. <https://doi.org/10.1016/j.fcr.2023.109138>
18. Lapaz Oliveira, A.; M. Castro-Franco; H. Sainz Rozas; **W.D. Carciochi**, M. Balzarini, O. Avila; I. Ciampitti, N. Reussi Calvo. 2023. Monitoring corn nitrogen nutrition

index from optical and synthetic aperture radar satellite data and soil available nitrogen. Precision Agriculture. <https://doi.org/10.1007/s11119-023-10054-4>

19. Crespo, C., **W.D. Carciochi**, M. Cuervo, E. Monacchi, J.G. Commatteo, P. Barbieri. 2023. Short-Term Effects of Cover Crops on Soil Physical, Chemical, and Biological Properties in the Southeastern Argentinean Pampas. Communications in Soil Science and Plant Analysis. <https://doi.org/10.1080/00103624.2023.2211611>.

20. Tovar Hernandez, S., **W.D. Carciochi**, N.V. Diovisalvi, N. Izquierdo, N. Wyngard, P. Barbieri, N.I. Reussi Calvo. 2023. Does nitrogen fertilization rate, timing and splitting affect sunflower yield and grain quality? Crop Science. <https://doi.org/10.1002/csc2.20932>

21. Lapaz Oliveira, A.; H. Sainz Rozas, M. Castro-Franco, **W.D. Carciochi**, L. Nieto, M. Balzarini, I. Ciampitti, N. Reussi Calvo. 2023. Monitoring corn nitrogen concentration from radar (C-SAR), optical, and sensor satellite data fusion. Remote Sensing. <https://doi.org/10.3390/rs15030824>

22. Giletto, C.M.; M. Kloster Erreguerena; P. Ceroli; **W.D. Carciochi**; S.E. Silva; S. Rodríguez; F. Salvagiotti; N.I. Reussi Clavo. 2022. Holistic assessment of calcium fertilization in potato: diagnostic, productivity, and tuber quality. Journal of Soil Science and Plant Nutrition. <https://doi.org/10.1007/s42729-022-01060-y>

23. Reussi Calvo, N.I.; **W.D. Carciochi**; P. Prystupa; I. Queirolo; H.R. Sainz Rozas. 2022. Economic optimum nitrogen rate analysis for feed and malting barley. Crop Science. <https://doi.org/10.1002/csc2.20808>.

24. Tovar Hernandez S.; **W.D. Carciochi** N. Diovisalvi; N. Izquierdo; N.I. Reussi Calvo. 2022. Does nitrogen and sulfur fertilization affect grain yield and quality in sunflower? Ciencia del Suelo.

25. Martínez Cuesta N.; **W.D. Carciochi**; N. Wyngaard; H. Sainz Rozas; S. Silva; F. Salvagiotti; P. Barbieri. 2022. Zinc fertilization strategies in soybean: plant uptake, yield, and seed concentration. Journal of Plant Nutrition. <https://doi.org/10.1080/01904167.2022.2067059>

26. Giletto C.M., **W.D. Carciochi**, F. Mateos Inchauspe, A. Alejandro, J. Delfino, S.E. Silva, M.N. Cassino, N.I. Reussi Calvo. 2022. Nitrogen Agronomic Efficiency and Estimated Losses in Potato with Enhanced-Efficiency Fertilizers. Arch. Agron. Soil Sci. 00(00): 1–14. doi: 10.1080/03650340.2022.2047943.

27. Wyngaard N., C. Crespo, H. Angelini, M. Eyherabide, G. Larrea, N. Reussi Calvo, **W.D. Carciochi**, H. Sainz-Rozas. 2022. The effect of agriculture on topsoil carbon stocks is controlled by land use, climate, and soil properties in the Argentinean Pampas. CATENA 212(July 2021): 106126. doi: 10.1016/j.catena.2022.106126.

28. **Carciochi, W.D.**; I. Massigoge; A. Lapaz Oliveira; N.I. Reussi Calvo; F. Cafaro La Menza; H.R. Sainz Rozas; P.A. Barbieri; M. Di Napoli; J. Gonzalez Montaner, I.A. Ciampitti. 2021. Cover crop species can increase or decrease the fertilizer-nitrogen requirement in maize. Agronomy Journal. DOI: 10.1002/agj2.20791

29. Martínez Cuesta N.; **W.D. Carciochi**; F. Salvagiotti; H. Sainz Rozas; N. Wyngaard; M. López de Sabando; P. Barbieri. 2021. DTPA-extractable zinc threshold for wheat grain yield response to zinc fertilization in Mollisols. Soil Science Society of American Journal. <https://doi.org/10.1002/saj2.20295>

30. Tovar Hernandez S.; N. Diovisalvi; **W.D. Carciochi**; N. Izquierdo; H.R. Sainz Rozas, F.O. García; N.I. Reussi Calvo. 2021. Assessment of nitrogen diagnosis methods in sunflower. Agronomy Journal. doi: 10.1002/agj2.20685.

31. Borja D.; L.H. Moro; D. Davidson. L.C. Purcell; F.E. Below; S.N. Casteel; C. Knott; H. Kandel; S.L. Naeve; **W.D. Carciochi**; W.J. Ross; V. Rampazzo; S. Archontoulis; I.A. Ciampitti. 2021. Sulfur fertilization in soybean: A meta-analysis on yield and seed composition. European Journal of Agronomy. doi:10.1016/j.eja.2021.126285.

32. **Carciocchi W.D.**; C. Crespo; M. Eliceche; P.A. Barbieri. 2021. Nitrogen and sulfur recycling and diagnostic in cover crop-maize systems. *Journal of Soil Science and Plant Nutrition*. <https://doi.org/10.1007/s42729-020-00402-y>
33. **Carciocchi W.D.**; F. Salvagiotti; A. Pagani; N.I. Reussi Calvo; M. Eyherabide; H.R. Sainz Rozas; I.A. Ciampitti. 2020. Nitrogen and sulfur interaction on nutrient use efficiencies and diagnostic tools in maize. *European Journal of Agronomy*. 116:126045
34. Martínez Cuesta N.; **W.D. Carciocchi**; H. Sainz Rozas; F. Salvagiotti; J.C. Colazo; N. Wyngaard; M. Eyherabide; G. Ferraris; P.A. Barbieri. 2020. Effect of zinc application strategies on maize grain yield and zinc concentration in Mollisols. *Journal of Plant Nutrition*. DOI: 10.1080/01904167.2020.1844754.
35. Martínez Cuesta N.; N. Wyngaard; H. Sainz Rozas; N.I. Reussi Calvo; **W.D. Carciocchi**; M. Eyherabide; J.C. Colazo; M Barraco; E.A. Guertal; P.A. Barbieri. 2020. Determining mehlich-3 and DTPA extractable soil zinc optimum economic threshold for maize. *Soil Use and Management*. DOI: 10.1111/sum.12657
36. Gaspar A.P.; S. Mourtzinis; D. Kyle; E. Galdi; L.E. Lindsey; W.P. Hamman; E.G. Matcham; H.J. Kandel; P. Schmitz; J.D. Stanley; J.P. Schmidt; D.S. Mueller; E.D. Nafziger; J. Ross; P.R. Carter; A.J. Varenhorst; K.A. Wise; I.A. Ciampitti; **W.D. Carciocchi**; M.I. Chilvers; B. Hauswedell; A.U. Tenuta; S.P. Conley. 2020. Defining optimal soybean seeding rates and associated risk across North America. *Agronomy Journal*. 112:2103–2114.
37. Bastos L.M.; **W.D. Carciocchi**; R.P. Lollato; B.R. Jaenisch; C.R. Rezende; R. Schwalbert; V. Prasad; G. Zhang; A.K. Fritz; C. Foster; Y Wright; S. Young; P. Bradley; I.A. Ciampitti. 2020. Winter Wheat Yield Response to Plant Density as a Function of Yield Environment and Tillering Potential: A Review and Field Studies. *Front. Plant Sci*. 11:54.
38. Appelhans S.; **W.D. Carciocchi**; A. Correndo; F. Gutierrez Boem; F. Salvagiotti; F. Garcia; R. Melchiori; P. Barbagelata; L. Ventimiglia; G. Ferraris; H. Vivas; O. Caviglia; I. Ciampitti. 2020. Predicting soil test phosphorus decrease in non-P-fertilized conditions. *European Journal of Soil Science*. 1-11
39. **Carciocchi, W.D.**; L.H. Moro Rosso; M.A. Secchi; A.R. Torres; S. Naeve; S.N. Casteel, P. Kovacs; D. Davidson; L.C. Purcell; S. Archontoulis; I.A. Ciampitti. 2019. Soybean yield, biological N₂ fixation and seed composition responses to additional inoculation in the United States. *Scientific Reports*. 9: 19908.
40. Ambrosini, V.G.; S.M. Vieira Fontoura; R.P. de Moraes; **W.D. Carciocchi**; I.A. Ciampitti; C. Bayer. 2019. Assessing Nitrogen Limitation in Inoculated Soybean Grown in Southern Brazil. *Agrosystems, Geosciences & Environment*. 2:190016.
41. **Carciocchi W.D.**; L. Contreras; C. Crespo; P.A. Barbieri. 2019. Cover crops: effect on sulfur availability in soybean. *Ciencia del suelo*. 37:269-280.
42. **Carciocchi W.D.**; V.O. Sadras; A. Pagani; I.A. Ciampitti. 2019. Co-limitation and stoichiometry capture the interacting effects of nitrogen and sulfur on maize yield and nutrient use efficiency. *European Journal of Agronomy*, 113(2020).
43. **Carciocchi W.D.**; J.A. Mateos; G.A. Divito; F. Mateos Inchauspe; H.R. Sainz Rozas. 2019. Sulfur mineralization: a key process for diagnosing its deficiency in wheat. *Soil Science Society of American Journal*. 83:1553-1563.
44. **Carciocchi W.D.**; N.I. Reussi Calvo; N. Wyngaard; G.A. Divito; H.E. Echeverría. 2019. Prognosis and diagnosis of sulfur status in maize by plant analysis. *European Journal of Agronomy*, 108:1-10.
45. **Carciocchi W.D.**; R. Schwalbert; F.H. Andrade; G.M. Corassa; P. Carter; A.P. Gaspar; J. Schmidt; I.A. Ciampitti. 2019. Soybean seed yield response to plant density by yield environment in North America. *Agronomy Journal*, 111:1-10.
46. **Carciocchi W.D.**; N. Wyngaard; N.I. Reussi Calvo, A. Pagani, G.A. Divito; H.E. Echeverría; I.A. Ciampitti. 2019. Critical sulfur dilution curve and sulfur nutrition index in maize. *Agronomy Journal*, 110: 1-9.

47. **Carciochi W.D.**; N. Wyngaard; G.A. Divito; M. Cabrera; N.I. Reussi Calvo; H.E. Echeverría. 2018. A comparison of indexes to estimate corn S uptake and S mineralization in the field. *Biology and Fertility of Soils*, 54: 349-362.
48. **Carciochi, W D.**; G.A. Divito; L.A. Fernández; H.E. Echeverría. 2017. Sulfur affects root growth and improves nitrogen recovery and internal efficiency in wheat. *Journal of Plant Nutrition*, 40: 1231-1242.
49. **Carciochi W.D.**; N. Wyngaard; G.A. Divito; N.I. Reussi Calvo; M. Cabrera; H.E. Echeverría. 2016. Diagnosis of sulfur availability for corn based on soil analysis. *Biology and Fertility of Soils*, 52: 917-926.

CONFERENCE / WORKSHOP / SYMPOSIUM ARTICLES (Total of 79)

1. **Carciochi, W.D.**, Dobermann, A., Aramburu Merlos, F., Grassini, P. 2024. A Multi-Criteria Approach for Assessing Crop K Limitations. ASA, CSSA and SSSA International Annual Meetings. San Antonio, Texas.
2. Farrasati, R., Lim, Y.L., **Carciochi, W.D.**, Donough, C., Sugianto, H., Rhebergen, T., Zingore, S., Oberthur, T., Ata, A., Siburat, S., Ho Vun Vui, P., Asmono, D., Seng Heng, T., Tittinuchanon, P., Prabowo, N., Ng, P., Monzón, J.P., Grassini, P. 2024. Nutrients and Oil Palm Yields - How Can We Estimate Field-Specific Fertilizer Requirements? ASA, CSSA and SSSA International Annual Meetings. San Antonio, Texas.
3. Avila, O., Eyherabide, M., Wyngaard, N., Reussi Calvo, N., Barbieri, P. A., **Carciochi, W. D.**, Romero, J., Sainz Rozas, H.R. 2024. Comparison between two extractants of soil exchangeable potassium. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
4. Barbieri, P. A., Crespo, C., Wyngaard, N., Eyherabide, M., Martínez Cuesta, N., Reussi Calvo, N. I., Sainz Rozas, H. R., Angelini, H. P., **Carciochi, W. D.**, Gudelj, V., Espósito Goya, G. P., Salvaggiotti, F., Ferraris, N. G., Sánchez, H., Ventimiglia, L., Torrens Baudrix, L. 2024. Maize yield response to boron fertilization in Mollisols: critical thresholds and predictive models. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
5. Bassi, L., Crespo, C., García, G. V., **Carciochi, W. D.**, Romero, J. A., Reussi Calvo, N. I., Barbieri, P., Sainz Rozas, H. R., Wyngaard, N. 2024. CO₂ flush as an indicator of soil health. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
6. Cafaro La Menza, F., Barbieri P. A., **Carciochi, W. D.** 2024. How much carbon and nitrogen do hairy vetch roots provide? (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina. (Oral presentation)
7. Cafaro La Menza, F., Lewczuk, N., Echarte, L., Barbieri, P. A., **Carciochi, W. D.** 2024. N₂O emissions during the vetch/maize sequence in the southeast of Buenos Aires. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina
8. D'Onofrio, E. P., Tordó, A. L., Crespo, C., Wyngaard, N., Sainz Rozas, H. R., **Carciochi, W. D.**, Barbieri, P. A. 2024. Cover crops: nitrogen and water availability in the sunflower-wheat rotation. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
9. Ferrari, J. L., Orden, L., **Carciochi, W. D.**, Galantini, J. 2024. Testing pelletized fertilizers with compost and different phosphorus sources in pots with wheat. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
10. Rodríguez, M. P., Crespo, C., **Carciochi, W. D.**, Sainz Rozas, H. R., Carcedo, A. J., Correndo, A. A., Ciampitti, I. A., Barbieri, P. A. 2024. Evaluating nitrogen contribution from hairy vetch in a soybean-wheat rotation in southeast Buenos Aires. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.

11. Rodríguez, M. P., Crespo, C., **Carciochi, W. D.**, Sainz Rozas, H. R., Barbieri, P. 2024. Sulfur release from hairy vetch and its impact on successor soybean crop. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
12. Tordó, A. L., Crespo, C., Wyngaard, N., Sainz Rozas, H. R., **Carciochi, W. D.**, Barbieri, P. A. 2024. Hairy vetch as cover crop: is there nitrogen residuality in the sunflower-wheat rotation? (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
13. Tordó, A. L., Crespo, C., Wyngaard, N., Sainz Rozas, H. R., **Carciochi, W. D.**, Barbieri, P. A. 2024. Resource productivity for the vetch-sunflower sequence. (In Spanish). XXIX Congreso argentino de la Ciencia del Suelo, Catamarca, Argentina.
14. Bonfanti L.; J.E. Specht; **W.D. Carciochi**; L.A. Sazon; P. Grassini; J.F. Andrade; J.L. Lindquist; V. Inklman; N. Cafaro La Menza. 2023. Soybean Seed Yield Distribution within the Canopy As Affected By Nitrogen Supply in High-Yielding Environments. ASA, CSSA and SSSA International Annual Meetings. St. Louis, Missouri. (Oral presentation)
15. Fernandez, M.R.; **Carciochi, W.D.**; Pio D'Onofrio, L.; Bassi, L.; García, G.V.; Echarte, M.M.; Covacevich, F. 2023. Effect of organic amendments on arbuscular mycorrhizal fungi associated with wheat cultivation. (In Spanish) IV Simposio de Residuos Agropecuarios y Agroindustriales. Mendoza, Argentina.
16. Cafaro La Menza, F.; **Carciochi, W.D.**; Barbieri, P.A.; Lewczuk, N.; Izquierdo, N.G. 2023. Nitrous oxide emissions, yield and grain quality in the vetch-corn sequence. . (In Spanish). 11º Jornada de Intercambio Académico Público-Privado. La Pampa, Argentina (Oral presentation)
17. Cafaro La Menza, F.; Crespo, C.; Dominguez, G.; Rodríguez, M.P.; Reussi Calvo, N.I.; Wyngaard, N.; Sainz Rozas, H.R.; Studdert, G.; Barbieri, P.; **Carciochi, W.D.** 2023. Analysis of hairy vetch use prior to corn in the southeast of Buenos Aires. (In Spanish). Simposio Fertilidad 2023. Rosario, Argentina
18. Iglesias, P., N. Wyngaard, H. Sainz Rozas, N. Lewczuck, **W.D. Carciochi**, M. Toribio, S. Tovar, F. García, N. Reussi Calvo. 2023. Nitrogen management strategies to reduce volatilization losses in corn under irrigated and dryland conditions. (In Spanish). Simposio Fertilidad 2023. Rosario, Argentina
19. **Carciochi, W.D.**; CafaroLa Menza, F.; Terwissen, D.; ReussiCalvo, N.I.; Izquierdo, N.; Rodríguez, M.P.; Lapaz, A.; Tovar Hernández, S.; Avila, O.; Barbieri, P.A.; Sainz Rozas, H.R. 2022. Do cover crops affect maize yield and grain protein? (In Spanish) Congreso de maíz tardío. Buenos Aires, Argentina.
20. Romero, J., L.B. Pio D'Onofrio, G.V. García, L. Bassi, M.M. Echarte, H.R. Sainz Rozas, N. Wyngaard, N.I. Reussi Calvo, **W.D. Carciochi**. 2022. Organic amendments: short-term effect on soil health indicators. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
21. Cafaro La Menza, F., **W.D. Carciochi**, N.I. Reussi Calvo; M.P. Rodríguez, A.M. Lapaz, P.A. Barbieri, H.R. Sainz Rozas. 2022. Cover crop management to synchronize nitrogen supply and demand in corn. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina. (Oral presentation)
22. Cafaro La Menza, F., **W.D. Carciochi**. 2022. Nutrients accumulation in service crops and its implication in agroecosystems. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
23. Bannister W., **W.D. Carciochi**, L. Bassi, S. Vacca, M. Eyherabide, N. Wyngaard, N.I. Reussi Calvo, H.R. Sainz Rozas. 2022. Use of solid manure from dairy farms in silage maize: productivity, quality and edaphic properties. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina, November 15 to 18.
24. Ferrari, J.L., **W.D. Carciochi**, L. Orden, J. Galantini. 2022. Comparison of pelletized organo-mineral vs. inorganic fertilizers in wheat: grain yield and quality. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.

25. Iglesias, M.P., **W.D. Carciochi**, P.A. Barbieri, N.I. Reussi Calvo. 2022. Sulfur fertilization in barley/second crop sequences: nutritional status, grain yield and quality. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
26. Iglesias, M.P., **W.D. Carciochi**, N.E. Maltese, A.M. Lapaz, O.P. Caviglia, N.I. Reussi Calvo. 2022. Nitrogen profile in maize canopy: diagnostic implications. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina. (Oral presentation)
27. Lapaz Oliveira, A.M., H. Saínz Rozas, **W.D. Carciochi**, M. Balzarini, M. Castro-Franco, O. Ávila, S. Tovar Hernández, G. Larrea, M.P. Rodríguez, N. Reussi Calvo. 2022. Is it possible to predict nitrogen concentration in corn using optical remote sensing and c-sar? XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
28. Lapaz Oliveira, A.M., **W.D. Carciochi**, H.R. Saínz Rozas, M. Balzarini, M. Castro-Franco, S. Tovar Hernández, O. Ávila, G. Larrea, M.P. Rodríguez, N. Reussi Calvo. 2022. New vegetation indices for satellite monitoring of the nitrogen nutrient index in corn. XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina. (Oral presentation)
29. Reussi Calvo, N.I., D. Cortez, R. Trujillo, A. Correndo, **W.D. Carciochi**, F.O. Garcia. 2022. Calibration of Olsen-P in maize and soybean in Santa Cruz de la Sierra-Bolivia. XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
30. Reussi Calvo, N.I., D. Cortez, R. Trujillo, **W.D. Carciochi**, F.O. Garcia. 2022. Balanced nutrition for maize and soybean in Santa Cruz de la Sierra-Bolivia. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
31. Rodríguez, M.P., C. Crespo, J.P. Martínez, H.R. Sainz Rozas, **W.D. Carciochi**, P.A. Barbieri. 2022. Productivity of resources in sequences with predominance of soybean. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
32. Tordó, A.L., C. Crespo, N. Wyngaard, H.R. Sainz Rozas, **W.D. Carciochi**, P.A. Barbieri. 2022. Hairy vetch management as a cover crop and its effect on nitrogen availability and sunflower yield. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
33. Tovar Hernández, S., F. Salvagiotti, **W.D. Carciochi**, N. Lewczuck, K. Hernandez, M. Biassoni, E. Kehoe, O. Avila, G. Garcia, M. Toribio, N. Wyngaard, F. García, H. Sainz Rozas, N. Reussi Calvo. 2022. Nitrogen gaseous losses according to the fertilizer source and rate in maize. XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
34. Tovar Hernández, S., F. Salvagiotti, **W.D. Carciochi**, N. Lewczuck, K. Hernandez, M. Biassoni, E. Kehoe, G. Garcia, O. Avila, A. Lapaz, M. Toribio, F. García, H. Sainz Rozas, N. Reussi Calvo. 2022. Yield and nitrogen use efficiency according to the nitrogen rate and source in maize. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
35. Wyngaard, N., G. García, C. Crespo, M. Toribio, J.A. Romero, N.I. Reussi Calvo, **W.D. Carciochi**, V. Aparicio, H.R. Sainz Rozas. 2022. Nitrogen losses from soils fertilized with urea treated with nitrification inhibitors. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
36. Bassi L., S. Tourn, N. Wyngaard, G.V. García, C. Crespo, **W.D. Carciochi**, C. Rivero, H.R. Sainz Rozas, G.A. Studdert. 2022. Respiration in re-wetted soil samples as an indicator of soil health. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
37. García, G.V., **W.D. Carciochi**, J. Chevallier Boutell; N. Diovisalvi; P. Iglesias; N. Wyngaard; C. Crespo; H.R. Sainz Rozas; N.I. Reussi Calvo. 2022. Effect of gypsum source and rate on physical health in irrigated soils. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.

38. Chevallier Boutell, J., **W.D. Carciochi**, G.V. García, N. Diovisalvi, P. Iglesias, N. Wyngaard, C. Crespo, H.R. Sainz Rozas, N.I. Reussi Calvo. 2022. (In Spanish) Gypsum application to reverse sodicity problems caused by irrigation: effect of source and rate. XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
39. Bassi L., G. V. García, N.I. Reussi Calvo, C. Crespo, **W.D. Carciochi**, I. Queirolo, H. R. Sainz Rozas, N. Wyngaard. 2022. Nitrogen mineralization indicators for winter cereals. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
40. Eyherabide, M., H.R. Sainz Rozas, N. Reussi Calvo, P.A. Barbieri, **W.D. Carciochi**, G. Larrea, C. Crespo, A. Pizzuto, N. Wyngaard. 2022. Methodological evaluation of the phosphorus sorption rate in soils (Pampas region). XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
41. Okada, E., D. Pérez, **W.D. Carciochi**, M.C. Pellegrini, A. Ponce, C. Lavallén, M. Dopchiz, B. Young, M. d. R. Franco, A. M. Di Martino, P. Rizzo. 2022. Chicken litter composting alternatives for use as a soil amendment. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
42. Okada, E., **W.D. Carciochi**, D. Pérez, F. Cafaro La Menza, E. Adlercreutz, K. Hernández Guijarro, B. Young, P. Rizzo. 2022. Improvement in lettuce productivity by chicken litter compost application. (In Spanish) XXVIII Congreso Argentino de la Ciencia del Suelo, Buenos Aires, Argentina.
43. Pellegrini M.C., A. Ponce, E. Okada, C. Lavallén, M. Dopchiz, P. F. Rizzo, D. Pérez, **W.D. Carciochi**, B. Young. 2022. Importance of chicken litter composting on its sanitation when using it as an organic amendment. (In Spanish) Biólogos en Red.
44. Lavallén, C.; M. Dopchiz; C. Villanueva; D. Pérez; **W.D. Carciochi**; C. Pellegrini; A. Ponce; B. Young; P. Rizzo; E. Okada. 2022. Chicken litter composting and its effect on the presence of intestinal parasites. (In Spanish) Biólogos en Red. November 14 to 15.
45. Ferrari, J.; Orden, L.; **W.D. Carciochi**; J. Galantini; R. Moral. 2022. Assessment of new pelletized biofertilizers in wheat: a pot experiment. IX Congresso Ibérico das Ciencias do Solo. Oeiras, Lisboa.
46. Pio D'Onofrio L.B., **W.D. Carciochi**, G.V. García, L. Bassi, M.M. Echarte, H.R. Sainz Rozas, N. Wyngaard, N.I. Reussi Calvo. 2021. Organic amendments: impact on soil properties. (In Spanish). XI Congreso sobre Uso y Manejo del Suelo. Bahía Blanca, Argentina.
47. Bassi L., S. Tourn, N. Wyngaard, G.V. García, C. Crespo, **W.D. Carciochi**, A. Pizzuto, C. Rivero, H.R. Sainz Rozas, G.A. Studdert. 2021. CO₂ flush as an indicator of soil health. (In Spanish). XI Congreso sobre Uso y Manejo del Suelo. Bahía Blanca.
48. **Carciochi, W.D.**; A. Defferrari; L. Bassi; N. Wyngaard; M. Eyherabide; A. Lapaz; S. Tovar Hernández; M. P. Rodríguez; N. Reussi Calvo; H. Sainz Rozas; P. Barbieri. 2020. Wheat cover crop termination time: nutrient release during maize growing season. (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
49. **Carciochi, W.D.**; N.I. Reussi Calvo; P. Prystupa; J.M. Orcellet; I. Queirolo; H.R. Sainz Rozas .2020. Does the nitrogen rate and timing of application affect barley grain yield and quality? (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
50. **Carciochi, W.D.**; C. Crespo; M. Eliceche; M.T. Cuervo; P.A Barbieri. 2020. Effect of cover crops on nitrogen availability in maize. (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.

51. Reussi Calvo, N.I.; **W.D. Carciochi**; N. Wyngaard; N. Diovisalvi; P. Prystupa; H. Sainz Rozas. 2020. Economic optimum nitrogen rate for yield and quality in winter cereals. (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
52. Cuervo, M.T.; C. Crespo; **W.D. Carciochi**; P. Barbieri. 2020. Short-term effect of cover crops on soil quality indicators. (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
53. Tovar Hernández, S.; N.I. Reussi Calvo; N.G. Izquierdo; **W.D. Carciochi**. 2020. Effect of nitrogen split application on sunflower seed yield and quality. (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
54. Tovar Hernández, S.; N.I. Reussi Calvo; N.G. Izquierdo; **W.D. Carciochi**. 2020. Effect of nitrogen fertilization rate on sunflower seed yield and quality. (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
55. Eyherabide, M.; S. Fubel; H.R. Sainz Rozas; N. Wyngaard; **W.D. Carciochi**; P.A. Barbieri. 2020. Estimation of the particulate organic carbon content by the calcination method for soils of the Pampean region. (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
56. Lapaz Oliveira, A.M.; **W.D. Carciochi**; N.I. Reussi Calvo; A. Cerrudo; H.R. Sainz Rozas; P.A. Barbieri; F.O. García. 2020. Is the application and monitoring of nitrogen at maize flowering viable? (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
57. Lapaz Oliveira, A.M.; N.I. Reussi Calvo; **W.D. Carciochi**; A. Cerrudo; P.A. Barbieri; H.R. Sainz Rozas. 2020. Partitioning and fertilization during maize flowering: effects on nitrogen use efficiency (In Spanish). XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
58. Sainz Rozas, H.R.; M.T. Cuervo; F. Prats; M. Eyherabide; H. Gizzi; **W.D. Carciochi**; N. Martínez Cuesta; G. Larrea; N. Wyngaard; N.I. Reussi Calvo; P. Barbieri. 2020. Zinc in wheat: ¿does its grain concentration change as a result of phosphorus and zinc fertilization? (In Spanish) XXVII Argentinean Congress of Soil Science, Corrientes, Argentina.
59. Moro Rosso, L.H.; **W.D. Carciochi**; S.L. Naeve; I.A. Ciampitti. 2019. Late Nitrogen and Sulfur Fertilization in Soybean: Impacts on Seed Yield and Quality. ASA, CSSA and SSSA International Annual Meetings. San Antonio, Texas.
60. Pott, L.P.; L.H. Moro Rosso; **W.D. Carciochi**; F.D. Hansel; D.A. Ruiz Diaz, I. A. Ciampitti. 2019. Identification of Nitrogen and Sulfur Status Utilizing Spectral Data in Corn. ASA, CSSA and SSSA International Annual Meetings. San Antonio, Texas.
61. **Carciochi, W.D.**, G.M. Corassa, R. Schwalbert, I.A. Ciampitti. 2019. Soybean optimal seeding rate / plant density by yield environment in North America and Brazil. 7^o Mercosur Soybean Congress. Rosario, Argentina.
62. Ambrosini, V.G.; S.M. Vieira Fontoura; R.P. de Moraes; **W.D. Carciochi**; I.A. Ciampitti; C. Bayer. 2019. Nitrogen limitation in inoculated soybean in southern Brazil. (In Portuguese) XXII Latin-American Congress of Soil Science. Montevideo, Uruguay (*Oral presentation*).
63. Tourn, S.; J.I. Santos; M. Trueba; R. Lasaga; D. Martínez; **W.D. Carciochi**. 2019. Regulation of fertilizers: the rate is not enough. (In Spanish). Fertility Symposium. Rosario, Argentina.
64. **Carciochi W.D.**; N. Wyngaard; G.A. Divito; N.I. Reussi Calvo; H.E. Echeverría. 2018. Diagnosis of sulfur availability for maize: soil and plant analysis. 2018 IFS Agronomic Conference. Cambridge, United Kingdom.

- 65. Carciochi, W.D.;** A. Pagani; I.A. Ciampitti. 2018. N and S dilution and stoichiometry in maize affected by N and S availability. ASA and CSSA Meeting. Baltimore, Maryland, USA.
- 66. Martínez Cuesta N;** **W.D. Carciochi;** H. Sainz Rozas; M. Eyherabide; N. Wyngaard; J.C. Colazo; G. Ferraris; F. Salvagiotti; P.A. Barbieri. 2018. Zinc fertilization technologies in corn. (In Spanish). XXVI Argentinean Congress of Soils Science, San Miguel de Tucumán, Argentina.
- 67. Martínez Cuesta N;** N. Wyngaard; H. Sainz Rozas; M. Eyherabide; **W.D. Carciochi;** P.A. Barbieri. 2018. (In Spanish). Response to boron fertilization in corn. XXVI Argentinean Congress of Soils Science, San Miguel de Tucumán, Argentina.
- 68. Eriksen K.;** **W.D. Carciochi;** G.A. Divito; P. Abbate. 2018. Sulfur fertilization: Effect on industrial quality of bread wheat in the southeast of Buenos Aires. (In Spanish). XXVI Argentinean Congress of Soils Science, San Miguel de Tucumán, Argentina
- 69. Wyngaard, N.;** M. Erdociain; **W.D. Carciochi;** M. Eyherabide; M. Puricelli; M.B. Calandroni; H.R. Sainz Rozas. 2018. Distribution of organic nitrogen fractions in agricultural and pristine soils of the Pampean region. (In Spanish). XXVI Argentinean Congress of Soils Science, San Miguel de Tucumán, Argentina
- 70. Carciochi W.D.;** N. Wyngaard; G.A. Divito; N.I. Reussi Calvo; H.E. Echeverría. 2017. Diagnostic tools for sulfur availability in corn. (In Spanish). Agronomic workshop of specific problems 2017 "Mineral nutrition and fertilization of crops". Buenos Aires, Argentina (Oral presentation).
- 71. Carciochi W.D.;** G.A. Divito; N.I. Reussi Calvo; N. Wyngaard; H.E. Echeverría. 2016. Diagnosis of sulfur deficiency in corn based on plant determinations. (In Spanish). XXV Argentinean Congress of Soil Science. Río Cuarto, Argentina. (Oral presentation).
- 72. Carciochi W.D.;** N. Wyngaard; G.A. Divito; N.I. Reussi Calvo; H.E. Echeverría. 2016. Indicators of sulfur availability in soil: diagnosis of deficiency in corn (In Spanish). XXV Argentinean Congress of Soil Science. Río Cuarto, Argentina.
- 73. Martínez Cuesta N.;** **W.D. Carciochi;** H. Sainz Rozas; P. Barbieri; S. Silva; F. Salvagiotti; G. Ferraris. 2016. Zinc fertilization technologies: concentration and exportation of the nutrient in soybean seeds. (In Spanish). XXV Argentinean Congress of Soil Science. Río Cuarto, Argentina. (Oral presentation).
- 74. Martínez Cuesta N.;** **W.D. Carciochi;** H. Sainz Rozas; P. Barbieri; S. Silva; F. Salvagiotti; G. Ferraris. 2016. Zinc fertilization technologies in soybean: effect on its use efficiency. (In Spanish). XXV Argentinean Congress of Soil Science. Río Cuarto, Argentina.
- 75. Carciochi W.D.;** G.A. Divito; N.I. Reussi Calvo; H.E. Echeverría. 2015. What do we know about sulfur diagnosis in the Argentinean Pampas crops? (In Spanish). Fertility Symposium 2015. Rosario, Argentina.
- 76. Carciochi, W.D.;** Divito, G.A.; Reussi Calvo, N.I.; Wyngaard N; Echeverría, H.E. 2014. Sulfur mineralization and its relationship with anaerobically incubated nitrogen. (In Spanish). XX Latin American Congress and XVI Peruvian Congress of Soil Science. Cusco, Perú.
- 77. Carciochi, W.D.;** Divito, G.A.; Reussi Calvo, N.I.; Wyngaard N; Echeverría, H.E. 2014. Evaluation of methodologies to measure sulfur mineralization in short-term incubations. (In Spanish). XXIV Argentinean Congress of Soil Science and II National Meeting "Organic Matter and Humic Substances". Bahía Blanca, Argentina.
- 78. Carciochi, W.D.;** Divito, G.A.; Fernández, L.; Echeverría, H.E. 2013. How does sulfur affect nitrogen use efficiency in wheat? its relationship with root growth. (In

Spanish). II International Workshop of Crop Ecophysiology applied to plant breeding. Mar del Plata, Argentina.

79. Carciochi, W.D.; Divito, G.A.; Fernández, L.; Echeverría, H.E. 2012. Sulfur deficiency decreases nitrogen uptake in wheat: responsible mechanisms. (In Spanish). XIX Latin American Congress and XXIII Argentinean Congress of Soil Science. Mar del Plata, Argentina.

RESEARCH GRANTS (Total of 19)

1. NSB "Assessing potassium limitation to soybean yields in Nebraska". Period: 2024-2027. **Collaborator**
2. Project AGR694/23 "Use of hairy vetch as a sustainable management practice in the agroecosystems: Impact on nitrogen synchronization, productivity and grain quality in maize, sunflower, and soybean". Period: 2023-2025. **Principal investigator**
3. Project PI-INICIAL-2021 "Nitrogen dynamics in cover crop-maize sequences: effect on maize nutrition, yield, and grain quality". *Period: 2022-2023.* **Principal investigator**
4. Project PICT 2021-CAT-I-00139 "Valorization and treatment of waste from dairy farms for the production of biogas, biofertilizers, and wastewater sanitation". *Period: 2022 – 2025.* **Collaborator**
5. Project PICT 2020-SERIEA-00605 "Nitrogen fertilizer management to increase the nitrogen use efficiency in maize and mitigate gas emissions in the Pampas region". *Period: 2022 – 2025.* **Co-principal investigator**
6. Project PICT 2020-SERIEA-03338 "Determining critical values of edaphic biota parameters, indicators of sustainability". *Period: 2022 – 2025.* **Collaborator**
7. Project PICT 2020-SERIEA-01330 "Diagnostic methods of basic cations and micronutrients in potato". *Period: 2022 – 2025.* **Collaborator**
8. Project PICT 2019-00485 "Use of hairy vetch as cover crop in southeastern Buenos Aires: effect on the following cash crops". *Period: 2020-2023.* **Co-principal investigator**
9. Project UNMdP PI3CET "Livestock waste`s valorization through its efficient and sustainable transformation into biogas, biofertilizers, and water for irrigation". *Period: 2020 – 2021.* **Collaborator**
10. Project UNMdP AGR634/20 "Nutrient release and greenhouse gas emissions in production systems including cover crops". *Period: 2020 – 2021.* **Collaborator**
11. Project UNMdP AGR624/20 "Ecophysiological management of cover crops used as forage". *Period: 2020 – 2021.* **Collaborator**
12. Project INTA 2019-PD-E2-I518-002 "Study of the environmental impact, management, and treatment of manure on agricultural and agro-industrial systems for their agronomic valorization". *Period: 2020 – 2023.* **Collaborator**
13. Project INTA 2019-PE-E1-I011-001 "Sustainable agricultural intensification in the Pampean Region". *Period: 2020 – 2023.* **Collaborator**
14. Project INTA 2019-PE-E2-I052-001 "Development and application of technologies for controlling erosion and soil degradation". *Period: 2020 – 2023.* **Collaborator**
15. Project PICT-2017-0757 "Exchangeable bases and micronutrients in soils from the Argentine Pampean region: spatial variability and diagnosis of their availability". *Period: 2019 – 2022.* **Collaborator**

16. Project t AGR447/14 "Macronutrients prognosis in relevant field crops". *Period:* 2014 – 2015. **Collaborator**
17. Project PICT 2011-1796. "Status and diagnosis of sulfur deficiencies in soybean, corn and wheat". *Period:* 2013 – 2016. **Collaborator**
18. Project AGR383/12 "Nutrient deficiencies diagnosis in crops in the southeast of Buenos Aires". *Period:* 2012 – 2014. **Collaborator**
19. Project INTA. "State and dynamic of soil nutrients". *Period:* 2012 – 2018. **Collaborator**

STUDENT MENTORING

Specialist, M. Sc. and Ph.D. (Total of 10)

1. **Cafaro La Menza, F.** 2022. *Title:* Nitrogen dynamic in hairy vetch-maize sequence and its effect on nitrous oxide emissions, grain yield and quality in maize. Ph.D. thesis, UNMdP. **Major Advisor.** (Current student).
2. **Avila Manotoa, O.R.** 2022. *Title:* Potassium in soils of Argentina: diagnosis of its availability in maize and soybean, evaluation of its residuality, and soybean response under different water conditions. Ph.D. thesis, UNMdP. **Co-advisor.** (Current student).
3. **Tovar Hernández, S.** 2022. *Title:* Gaseous emissions and corn productivity according to nitrogen source and rate. Ph.D. thesis, UNMdP. **Committee Member.** (Current student).
4. **Pose N.** 2022. *Title:* Phosphorus recovery in the form of struvite from digestates obtained by anaerobic digestion and evaluation for its sustainable agricultural use. Ph.D. thesis, UNMdP. **Co-advisor.** (Current student).
5. **Tordó, A.** 2022. *Title:* Hairy vetch management in the southeastern Pampas: nutrients release during the following crop rotation. Ph.D. thesis, UNMdP. **Committee Member.** (Current student).
6. **Thomas, J.** 2022. *Title:* Cover crops: impact on soil physical properties in the Argentinean Pampas. Crop Production Specialist. thesis, UNMdP. **Major Advisor.** (Approved).
7. **Bassi, L.** 2021. *Title:* Nitrogen mineralization indices: chemistry characterization and assessment as estimators of nitrogen availability and soil health. Ph.D. thesis, UNMdP. **Committee Member.** (Current student).
8. **Rodriguez, M.P.** 2021. *Title:* Hairy vetch as a service crop: effect on nitrogen and sulfur dynamic in the soybean/wheat sequence in the southern Pampas. Ph.D. thesis, UNMdP. **Committee Member.** (Current student).
9. **Tovar Hernández, S.** 2019. *Title:* Effect of nitrogen and sulfur on sunflower seed yield and quality. M. Sc. thesis, UNMdP. **Committee Member.** (Approved).
10. **Martínez Cuesta, N.** 2018. *Title:* Comparison of soil and plant analysis methods for the diagnosis of zinc availability in maize. Ph.D. thesis, UNMdP. **Committee Member.** (Approved).

Undergraduate (Total of 21)

1. **Chevallier Boutell, J.** 2023. *Title:* Gypsum amendment to revert sodicity issues caused by supplementary irrigation: effect of form and rate. Graduate thesis, UNMdP. **Major Advisor.** (Approved).

2. **Fernández, M.** 2023. *Title:* Activity and diversity of mycorrhizal fungi associated with wheat in systems fertilized with agricultural byproducts. Graduate thesis, UNMdP. **Major Advisor.** (Approved).
3. **Goñi, A.** 2022. *Title:* Nitrogen nutrition x foliar diseases x genotype interaction affecting grain yield and quality of wheat. Graduate thesis, UNMdP. **Major Advisor.** (Current student).
4. **Bannister, W.** 2022. *Title:* Solid dairy manure: impact on silage corn productivity and quality and soil properties. Graduate thesis, UNMdP. **Major Advisor.** (Approved).
5. **González Bonorino, S.** 2021. *Title:* Nitrogen fertilization timing impacting grain yield and nitrogen use efficiency in maize. Graduate thesis, UNMdP. **Major Advisor.** (Approved).
6. **Cafaro La Menza, F.** 2021. *Title:* Management of cover crops to synchronize the nitrogen supply and demand in corn. Graduate thesis, UNMdP. **Major Advisor.** (Approved).
7. **Pio Donofrio, L.** 2020. *Title:* Organic amendments application: effect on soil properties and productivity of wheat-soybean double crop. Graduate thesis, UNMdP. **Major Advisor.** (Approved).
8. **Montovi E.** 2020. *Title:* Organo-mineral pellets enriched with phosphorus and nitrogen: impact on wheat nutrition. Graduate thesis, UNMdP. **Major Advisor.** (Approved).
9. **Pérez Polo, T.** 2020. *Title:* Uniformity distribution of urea by projection application: effect on nutrition, productivity, and quality of wheat (*Triticum aestivum* L.). Graduate thesis, UNMdP. **Co-advisor.** (Current student).
10. **Cuervo, M.** 2018. *Title:* Cover crops: short-term effect on soil quality indicators. Graduate thesis, UNMdP. **Committee Member.** (Approved).
11. **Mendoza, A.** 2018. *Title:* Effect of wheat cover crop killing date on soil water and nutrient availability in maize. Graduate thesis, UNMdP. **Committee Member.** (Approved).
12. **Santos, J.I.** 2018. *Title:* Urea's uniformity distribution broadcasted with different fertilizer machines and its effect on grain production in maize. Graduate thesis, UNMdP. **Committee Member.** (Approved).
13. **Trueba, M.** 2018. *Title:* Effect of nitrogen fertilizer distribution on maize (*Zea mays* L.) nutrition and yield. Graduate thesis, UNMdP. **Committee Member.** (Approved).
14. **Contreras, L.** 2018. *Title:* Cover crops: effect on sulfur availability in soybean. Graduate thesis, FCA, UNMdP. **Major Advisor.** (Approved).
15. **Monachi, E.** 2018. *Title:* Cover crops: short-term effect on soil physical and biological properties. Graduate thesis, UNMdP. **Committee Member.** (Approved).
16. **Mateos, J.** 2018. *Title:* Diagnosis of sulfur availability in wheat. Graduate thesis, UNMdP. **Major Advisor.** (Approved).
17. **Fubel, S.** 2017. *Title:* Estimating the particulate organic carbon content by calcination method for soils of the Pampean region. Graduate thesis, UNMdP. **Committee Member.** (Approved).
18. **Álvarez Estrada, L.T.** 2016. *Title:* Effect of land-use change on the coarse carbon fraction in the Pampean region. Graduation thesis, UNMdP. **Committee Member.** (Approved).

19. **Eriksen, K. 2017.** *Title:* Sulfur fertilization: effect on yield and industrial bread quality of wheat in the southeastern Buenos Aires Province. Graduation thesis, UNMdP. **Major Advisor.** (Approved).
20. **Erdociain, M. 2017.** *Title:* Effect of land-use change on labile nitrogen fractions in the Pampean Region. Graduate thesis, UNMdP. **Committee Member.** (Approved).
21. **Martínez Cuesta, N. 2016.** *Title:* Zinc fertilization technologies in soybean: effect on use efficiency. Graduate thesis, UNMdP. **Committee Member.** (Approved).

Interns (Total of 6)

1. **Terwissen, D. 2020.** *Title:* Cover crops: impact of killing date and species on nitrogen dynamics in maize. Internship UNMdP. **Major Advisor.** (Current student).
2. **Cafaro La Menza, F. 2020.** *Title:* Use of cover crops as nitrogen, phosphorus, and sulfur catch crops. Internship UNMdP. **Major Advisor.** (Finished).
3. **Rodríguez J. 2019.** *Title:* Zinc fertilization in wheat: yield and nutrient concentration in grain. Internship UNMdP. **Major Advisor.** (Finished).
4. **Torres Y. 2019.** *Title:* Dry matter and nitrogen accumulation in shoot biomass of different cover crops. Internship UNMdP. **Major Advisor.** (Finished).
5. **Ahrndt, D. 2017.** *Title:* Cover crops: effects on corn nutrition. Internship UNMdP. **Major Advisor.** (Finished).
6. **Noblia, Federico. 2016.** *Title:* Organic carbon and its fractions in the Pampean Region soils. Internship UNMdP. **Major Advisor.** (Finished).

SCHOLARSHIPS

Postdoctoral Scholarship, granted by National Scientific and Technical Research Council (CONICET) **2018-2022**

Postgraduate Students Scholarship ESCALA, granted by Asociación de Universidades Grupo Montevideo. Universidad de la República, Montevideo, Uruguay. **2017**

Doctoral Scholarship, granted by National Scientific and Technical Research Council (CONICET) **2016-2018**

Doctoral Scholarship, granted by National Agency for Scientific and Technological Promotion (AGENCIA) **2013-2016**

Training Scholarship for University Students, granted by Scientific Research Commission of Buenos Aires. **2011-2012**

AWARDS

Finalist of "Brian Chambers International Award for early career researchers in crop nutrition". Awarded by International Fertiliser Society. **2018**

IPNI Scholar Award 2016. Awarded by the International Plant Nutrition Institute **2016**

6th place in honor roll "Agrarius 2011" for academic performance. Awarded by the National University of Mar del Plata. **2011**

5th place in honor roll "Agrarius 2010" for academic performance. Awarded by the National University of Mar del Plata. **2010**

INTERNSHIPS

Fellow Post-Doc at University of Nebraska-Lincoln (USA) <i>Advisors:</i> Ph.D. Nicolas Cafaro La Menza & Patricio Grassini.	2022-23
Fellow Post-Doc at Kansas State University (USA). <i>Advisor:</i> Ph.D. Ignacio Ciampitti. <i>Period:</i> April 2018 – July 2019.	2018-19
Training and research internship at Universidad de la República (Uruguay). <i>Advisor:</i> Ph.D. Mónica Barbazan. <i>Period:</i> March	2017
Research internship at the University of Georgia (USA). <i>Advisor:</i> Ph.D. Miguel Cabrera. <i>Period:</i> September – December.	2015

PROFESSIONAL MEMBERSHIP

Crop, Soil Science & Agronomy Societies of America (CSSA, SSSA & ASA)	2018-PRESENT
Argentinean Association of Soil Science (AACS).	2016-PRESENT
International Fertiliser Society (IFS)	2018-2019

SERVICE TO SCIENCE AND PROFESSIONAL SOCIETIES

Guest Editor of a Research Topic in Frontiers in Soil Science, Frontiers in Agronomy, and Frontiers in Plant Science	2022-2024
Chair of the Soil Fertility Commission, Argentinean Association of Soil Science	2020-2023
Undergraduate and graduate thesis reviewer (National University of Mar del Plata; University of the Republic from Uruguay; University of Buenos Aires; National University of Central Buenos Aires)	2020-PRESENT
Manuscript Reviewer for ACS Sustainable Chemistry & Engineering, Agriculture, Agrociencia Uruguay, Agronomy, Agronomy Journal, Agrosystems, Geosciences & Environment, Archives of Agronomy and Soil Science, Ciencias Agronómicas, Ciencia del Suelo, Crop & Pasture Science, Crop Science, European Journal of Agronomy, Facultad de Agronomía, Field Crops Research, Frontiers in Soil Science, Gesunde Pflanzen, Journal of Food Composition and Analysis, Journal of Plant Nutrition and Soil Science, Journal of Soil Science and Plant Nutrition, Planta, Revista Agronómica Colombiana, Rhizosphere, Scientific Reports, Soil Science Society of America Journal, Sustainability.	2018-PRESENT
Chair of the Training Commission, College of Agricultural and Forestry Engineers of the Buenos Aires Province	2020-2022
Member of the Academic Committee of Graduate Area in Plant Sciences and Natural Resources (National University of Mar del Plata), as student's ambassador.	2015 – 2018
Member of the Graduate Commission of the Agronomy Sciences Faculty (National University of Mar del Plata), as student's ambassador.	2016 - 2018

EXTENSION ACTIVITIES

Extension projects

“Rainfall simulator: a tool to raise awareness in society about soil preservation”.

Principal Investigator

“Composting household organic waste as a way to promote ecological restoration and soil health”. **Collaborator**

Organization of congresses, symposiums, workshops, and conferences.

Dissertation in workshops and talks to agricultural producers and students.

Extension articles (Total of 25)

1. **Carciochi, W.**; Salvagiotti, F.; Reussi Calvo N. 2024. Nitrogen in hairy vetch/maize: credit or penalty? (In Spanish). Red de Maíz Tardío - Campaña 2023/24 AAPRESID, pp 21-25.
2. **Carciochi, W.D.**; Mueller, N., Maharjan, B.; Puntel, L.; Nygren, A.; Iqbal, J., Cafaro La Menza, N. 2023. Sulfur Management in Agricultural Systems of Nebraska. NebGuide. Nebraska Extension. G2360
3. Ferrari, J.; Orden, L.; **Carciochi, W.D.** 2023. Pelletized compost applied in extensive agriculture. (In Spanish). Revista Presencia. INTA. XXXIV-80
4. Cafaro La Menza, F.; Reussi Calvo, N.I.; Rodríguez, M.P.; La Paz, A.M.; Barbieri, P.A.; Sainz Rozas, H. R.; **Carciochi, W.D.** 2023. Cover crops management to synchronize nitrogen release and uptake in maize. (In Spanish). Nuestro Suelo. April 2023 N° 9.
5. Lavallén, C; M. Dopchiz; D. Pérez; **W. Carciochi**; C. Pellegrini; A. Ponce; B. Young; P. Rizzo; E. Okada.. 2022. Effects of chicken litter composting on the presence of coccidia parasites, free-living nematodes and mites. (In Spanish). Revista ASACOMP. Noviembre 2022.
6. Pellegrini M.C., A. Ponce, E. Okada, C. Lavallén, M. Dopchiz, P. F. Rizzo, D. Pérez, **W. Carciochi**, B. Young. 2022. Composting of chicken litter as a procedure for the elimination of pathogenic microorganisms. (In Spanish). Visión Rural, N° 143. Julio-Agosto 2022
7. Okada, E.; Rizzo, P.F.; Pérez, D.J.; **Carciochi, W.**; Pellegrini, C.; Ponce, A.; Lavallen, C.; Dopchiz, M.; Young, B.; Di Martino, A.M.; Borracci, S.E. 2022. Why is it important to compost chicken litter before using it as an amendment in horticultural production? (In Spanish). Visión Rural, N° 142. Mayo-Junio 2022.
8. Reussi Calvo, N.I.; **W. Carciochi**; A. Lapaz Oliveira; F.O. Garcia; H. Sainz Rozas. 2022. Nitrogen splitting to multiply grain yield. (In Spanish). Revista técnica de AAPRESID, 206: 118-124.
9. Rodríguez M.P.; **W.D. Carciochi**; C. Crespo; H.R. Sainz Rozas; P. Barbieri. 2021. Is hairy vetch a good predecessor of soybean? (In Spanish). Visión Rural, N° 136.
10. Cuervo, M.; C. Crespo; **W.D. Carciochi**; L. Bassi; P. Barbieri. 2020. Short-term effect of cover crops on soil quality indicators. (In Spanish). Visión Rural, N° 133.
11. Reussi Calvo, N.; H. Sainz Rozas; N. Wyngaard; **W. D. Carciochi**; N. Diovisalvi; P. Prystupa; F. García. 2020. Nitrogen monitoring in wheat and barley How? When? With what? And for what? (In Spanish) Visión Rural, N° 133.
12. Mateos, J.; **W.D. Carciochi**; G. Divito; F. Mateos Inchauspe; H. Sainz Rozas. 2020. Sulfur in wheat: ¿should we fertilize? (In Spanish) Visión Rural, N° 132.

13. Moro Rosso, L.H.; **W.D. Carciochi**; I.A Ciampitti. 2019. Nutritional quality of soybean seeds relative to canopy portion. Kansas Agricultural Experiment Station Research Reports. Manuscript 7781.
14. Pott, L.P.; L.H. Moro Rosso; **W.D. Carciochi**; J. Kimball; Eric Adey; I.A. Ciampitti. 2019. Planting Date and Maturity Group Interaction for Soybean Productivity and Seed Quality in East Central Kansas. Kansas Agricultural Experiment Station Research Reports. Vol. 5; Iss. 6.
15. **Carciochi W.D.**; I.A Ciampitti. 2019. Agronomic Optimal Plant density by yield environment in soybean. Kansas Agricultural Experiment Station Research Reports. Manuscript 7778.
16. Tourn, S.; P. Platz; J.I. Santos; M. Trueba; R. Lasaga; D. Martínez; **W.D. Carciochi**. 2019. Fertilizer machines, more than just the right rate. (In Spanish) Visión Rural, N° 127.
17. Ciampitti, I.A.; **W.D. Carciochi**. 2019. Soybean seeding rates and optimum plant populations. Extension Agronomy, K-State Agronomy eUpdates. Issue 745, May 3rd, 2019.
18. Ciampitti, I.A.; D. Fjell; **W.D. Carciochi**; L. Nieto; R. Casaroto. 2019. Summary of 2018 Kansas Corn Yield Contest. Extension Agronomy, K-State Agronomy eUpdates. Issue 733, February 22nd, 2019.
19. **Carciochi W.D.**; Tourn S. 2017. Fertilizers and fertilizer calibration. (In Spanish) Informaciones Agronómicas de Hispanoamérica. June.
20. **Carciochi W.D.**; Tourn S. 2016. Fertilizers Characteristics and fertilizer calibration. (In Spanish) Visión Rural, N° 114.
21. Martínez Cuesta N.; **Carciochi W.D.**; Sainz Rozaz H.; Barbieri P. 2016. Fertilization technologies with zinc in soybean: use efficiency, concentration, and exportation of the nutrient with grain. (In Spanish). Revista Horizonte A, N°83.
22. **Carciochi W.D.**; G.A. Divito; N.I. Reussi Calvo; H.E. Echeverría. 2015. The best management practices of sulfur fertilization in field crops. (In Spanish). Informaciones Agronómicas de Hispanoamérica.
23. **Carciochi W.D.**; G.A. Divito; N.I. Reussi Calvo; H.E. Echeverría. 2015. Sulfur fertilization: how much, when, how and with what? (In Spanish). Visión Rural, N° 109.
24. **Carciochi W.D.**; G.A. Divito; N.I. Reussi Calvo; H.E. Echeverría. 2015. What do we know about sulfur diagnosis in the Argentinean Pampas crops? (In Spanish) Informaciones Agronómicas de Hispanoamérica.
25. **Carciochi, W.D.** 2014. How does sulfur affect root growth and nitrogen use efficiency in wheat? (In Spanish). Revista Fertilizar; N°28.