

Research Group
Sustainable Land Ecosystems
List of Peer-Reviewed Publications

Group Head
Guillermo Hernandez R.
Professor

Department of Renewable Resources
(REN R)

Faculty of Agriculture, Life, and
Environmental Sciences
(ALES)

University of Alberta

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Peer-reviewed Published Journal Articles

(Underlined authors are or were members of our research group).

1. Iheshiulo E.M.-A., F.J. Larney, G. Hernandez-Ramirez, M. St. Luce, K. Liu, and H.W. Chau. Do Diversified Crop Rotations Influence Soil Physical Health? A Meta-Analysis. Soil and Tillage Research 233, 105781 <https://doi.org/10.1016/j.still.2023.105781>
2. Lin, S., Hernandez-Ramirez, G., Kryzanowski, L., Lohstraeter, G., Wallace, T. 2023. Adding inhibitors to manure injections can mitigate nitrous oxide emissions from barley croplands. Nutr Cycl Agroecosyst 126: 81–100. <https://doi.org/10.1007/s10705-023-10277-x>
3. Schulze, C., Oliver Sonnentag, Carolina Voigt, Lauren Thompson, Lona van Delden, Liam Heffernan, Guillermo Hernandez-Ramirez, McKenzie Kuhn, Sisi Lin and David Olefeldt. 2023. Nitrous Oxide Fluxes in Permafrost Peatlands remain negligible after Wildfire and Thermokarst Disturbance. Journal of Geophysical Research – Biogeosciences. 128 <http://dx.doi.org/10.1029/2022JG007322>
4. Syazwan Sulaiman, Namasivayam Navaranjan, Guillermo Hernandez-Ramirez, Zohrah Sulaiman. 2023. Plant residues ameliorate pH of agricultural acid soil in a laboratory incubation: a meta-analysis. Journal of Plant Nutrition and Soil Science. 186: 330-338 doi: 10.1002/jpln.202200332
5. Daly, E.L., K. Kim, Hernandez-Ramirez, G., and K. Klimchuk. 2023. The response of soil physical quality parameters to a perennial grain crop. Agriculture, Ecosystems and Environment. 343, 108265 <https://doi.org/10.1016/j.agee.2022.108265>
6. Pelster, D.E., A. Thiagarajan, B.C. Liang, M.H. Chantigny, C. Wagner-Riddle, K. Congreves, R. Lemke, A. Glenn, M. Tenuta, Hernandez-Ramirez, G., S. Bittman, D. Hunt, J. Owens, J.D. MacDonald. Ratio of non-growing season to growing season N₂O emissions in Canadian croplands: an update to national inventory methodology. Canadian Journal of Soil Science 103: 344–352 <https://doi.org/10.1139/CJSS-2022-0101>
7. Lee, A., Neuberger, P., Omokanye, A., Hernandez-Ramirez, G., K. Kim, M.A. Gorzelak. 2023. Arbuscular mycorrhizal fungi in oat-pea intercropping. Sci Rep 13, 390. <https://doi.org/10.1038/s41598-022-22743-7>

8. Thilakarathna, S.K., M. Korschuh, S.A. Woods, Hernandez-Ramirez, G. 2023. Nitrous oxide emissions and productivity of irrigated potato: Effects of nitrogen fertilization options. *Agronomy Journal*. 115: 161-180 <https://doi.org/10.1002/agj2.21213>
9. Kim, K.*, Daly, E.J., M. Gorzelak, Hernandez-Ramirez, G. 2022. Soil organic matter pools response to perennial grain cropping and nitrogen fertilizer. *Soil and Tillage Research*. 220, 105376 <https://doi.org/10.1016/j.still.2022.105376>
10. Kim, K.*, P. Neuberger, Daly, E.J., M. Gorzelak, Hernandez-Ramirez, G. 2022. Arbuscular mycorrhizal fungi community linkages to soil nutrient availability across contrasting agroecosystems. *Applied Soil Ecology*. 176, 104464 <https://doi.org/10.1016/j.apsoil.2022.104464>
11. Kim, K.*, Daly, E.J., Flesch, T.K., Coates, T.W., Hernandez-Ramirez, G. 2022. Carbon and water dynamics of a perennial versus an annual grain crop in temperate agroecosystems. *Agriculture and Forest Meteorology* 314, 108805 <https://doi.org/10.1016/j.agrformet.2021.108805>
12. Lin, S.*, Hernandez-Ramirez, G. 2022. Increased soil-derived N₂O production following a simulated fall-freeze-thaw cycle: Effects of fall urea addition, soil moisture, and history of manure applications. *Biogeochemistry*. 157, 379–398 <https://doi.org/10.1007/s10533-021-00880-x>
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15. Roman-Perez C.C.*, Hernandez-Ramirez, G. 2021. Nitrous oxide production and nitrogen transformations in a soil amended with biosolids. *Canadian Journal of Soil Science*, <https://doi.org/10.1139/CJSS-2021-0064>
16. Coates, TW, Alam, M, Flesch, TK*, Hernandez-Ramirez G. 2021. Field testing two flux footprint models. *Atmos. Meas. Tech.*, 14, 7147–7152, <https://doi.org/10.5194/amt-14-7147-2021>

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18. Lin, S.*, Mezbahuddin, S., Grant, R., Hernandez-Ramirez, G. 2021. How could simulated dewatering of slurry mitigate nitrous oxide emissions from fall and spring injections? – A modelling study in a Chernozem soil in Western Canada. Science of the Total Environment. 796, 148758 <https://doi.org/10.1016/j.scitotenv.2021.148758>
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<https://doi.org/10.1016/j.still.2021.105036>
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23. Lin, S., and G. Hernandez-Ramirez. 2021. Nitrogen turnover and N₂O production in incubated soils after receiving field applications of liquid manure and nitrification inhibitors. Canadian Journal of Soil Science, doi.org/10.1139/CJSS-2020-0102.
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27. Roman-Perez C.C., Hernandez-Ramirez, G*. 2021. Sources and priming of N₂O production across a range of moisture contents in a soil with high organic matter. *Journal of Environmental Quality* 50:94-109 doi: 10.1002/jeq2.20172
28. Thilakarathna, S.K., Hernandez-Ramirez, G.* 2021. How does Management Legacy, Nitrogen Addition and Nitrification Inhibition Impact Soil Organic Matter Priming and Nitrous Oxide Production? *Journal of Environmental Quality* 50:78-93. doi: 10.1002/jeq2.20168
29. Thilakarathna, S.K. Hernandez-Ramirez, G.*, Puurveen, D., Kryzanowski L, Lohstraeter G, Powers L-A, Quan, N., and Tenuta, M. 2020. Nitrous Oxide Emissions and Nitrogen Use Efficiency in Wheat: N Fertilization Timing and Formulation, Soil N, and Weather Effects. *Soil Sci. Soc. Am. J.* 84:1910–1927 doi: 10.1002/saj2.20145
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