



# Curriculum Vita

## David C. Weindorf, Ph.D., P.G.

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### Work Experience & Key Accomplishments:

#### Central Michigan University (Mt. Pleasant, MI)

2020 – Present: Vice President for Research and Innovation (Office of Research and Graduate Studies)

- Management of four units: 1) Office of Sponsored Programs, 2) Office of Research Compliance (IRB, IACUC, IBC), 3) Office of Laboratory and Field Safety, and 4) Office of Graduate Studies
- Modernization of research enterprise management
- Record external grantsmanship (▲32%), scholarly output (▲39%), and research impact (▲85%); all reflect new university records
- Largest NSF HERD ranking improvement in a decade
  - Total research expenditures ▲ 15 ranking positions 2020→2021
- Obtained CMU's first ever ranking in the QS World University Rankings (2022, 2023)
- Led CMU's successful proposal to become an officially designated Space Grant institution
- National authority in data analytics/paperless workflow for optimized research enterprise management (SciVal, Scopus, PURE, Cayuse SP, DocuSign)
  - First successful integration of PURE w/Digital Measures in the United States
- Development of research communications platform w/emphasis on social media
- Development of Research Advisory Council and Research Advisory Board
- Strengthening of international engagement/recruitment
  - Liaison to both Fulbright Specialist and Fulbright Scholar programs
- Strengthening of safety programs
- Coordination of intellectual property, patent prosecution, technology transfer, and licensing agreements
- Commitment to, and expansion of, diversity within management staff
- Direct management of \$6.2 m research enterprise budget

#### Texas Tech University (Lubbock, TX)

2019 – 2020: Associate Vice President (Office of Research and Innovation), Professor, & BL Allen Endowed Chair of Pedology

- Integration of research enterprise management software (SciVal, PURE)
- Comprehensive review/management of all centers and institutes
- Coordination of TAMEST nominations
- Special projects as assigned by the Vice President for Research

2018: Research Faculty Fellow (Office of the Vice President for Research), Professor, & BL Allen Endowed Chair of Pedology

2016 – 2018: Associate Dean for Research (College of Agricultural Sciences & Natural Resources), Professor, & BL Allen Endowed Chair of Pedology

- TTU coordinator/liaison to Project Revolution (\$10 m joint research funding w/Bayer CropScience and BASF)
- Texas State Support Committee grant proposal reviews
- College safety program management
- Publication incentive program

- Leader of the soil science program
- 2014 – 2016: Associate Dean for Research (College of Agricultural Sciences & Natural Resources), Associate Professor, & BL Allen Endowed Chair of Pedology
- 2013: Associate Professor & BL Allen Endowed Chair of Pedology

**Louisiana State University/LSU AgCenter (Baton Rouge, LA)**

- 2010 – 2013: Associate Professor of Soil Classification/Land Use
- 2007 – 2010: Assistant Professor of Soil Classification/Land Use

**Tarleton State University/Texas Agricultural Experiment Station (Stephenville, TX)**

- 2001 – 2007: Assistant Professor of Soil Science

**Educational Background:**

- 2002: Ph.D. Agronomy, Texas Tech University, Lubbock, TX
- 1997: M.S. Soil Science, Texas Tech University, Lubbock, TX
- 1995: B.S. Range Management, Texas Tech University, Lubbock, TX

**Professional Activities and Memberships:**

- Board of Directors, Fulbright Association West and Mid-Michigan Chapter (2021-Present)
- American Society of Agronomy (1994-Present)
- Soil Science Society of America (1995-Present)
  - S-5 (Pedology) section chair (2016)
  - Arctic soil documentary task force chair (2016)
- American Association for the Advancement of Science (AAAS) (2021-Present)
- American Association for Laboratory Animal Science (2021-Present)
- Phi Kappa Phi (2018-Present)
- SciVal Certification – Elsevier Research Analytics (2021)
- Scopus Certification – Elsevier Research Analytics (2022)
- Board of Trustees, Central Michigan University Research Corporation (2020-2023)
- Board of Trustees, Composting Research and Education Foundation (2019-2021)
  - Trustee Advisor, Composting Research and Education Foundation (2013-2018; 2022-Present)
- Fulbright Association (Lifetime member)
- Visiting Professor, Print-Capes Program (Universidade Federal de Lavras, Brazil); Short course - PCS 554: Proximal sensor applications for optimized food security in Brazil (2019)
- Graduate, LEAD21 Leadership Program Class 13 (2018)
  - Member, LEAD21 Alumni Association
- Fulbright Specialist, US State Department / World Learning (Duty station: Indian Institute of Technology, Kharagpur, India) (2018)
- Fulbright Scholar, Lecturing/Research Award (Duty station: Universitatea de Științe Agricole și Medicină Veterinară (USAMV), Cluj-Napoca, Romania) (2011)
- STEM Advisory Board member, Coronado High School, Lubbock, TX (2017-2018)
- Soil Horizons (Editor 2011-2013)
- Geoderma (Editorial Board)
- Pedosphere (Editorial Board)
- International Journal of Environmental Quality (co-Editor-in-Chief)
- Professional Soil Scientists Association of Texas (Sustaining Member)
  - Ask A Soil Scientist Award (multiple years)
  - Past President, Board Member
- Texas Section of the American Society of Agronomy
  - Past President, Board Member
- Texas Professional Geoscientist (Lic. #772)

### Texas Tech Courses Taught:

- PSS 2432: Principles and Practices in Soils
- PSS 4332/5337: Soil Classification/Advanced Soil Classification
- PSS 5334: Soils and Crops of Arid Lands
- PSS 5336: Soil Mineralogy

### University of Alaska Courses Taught:

- NRM 489/689: Alaska Soil Geography Field Study (Co-Instructor)

### LSU Courses Taught:

- AGRO 4058: Soil Morphology/Classification
- AGRO 4078: Land Use Planning and Management
- AGRO 7058: Advanced Pedology

### Tarleton Courses Taught:

- AGRN 3014: Soil Science
- AGRN 3124: Soil Morphology and Classification
- AGRN 4204: Soil Fertility
- AGRN 4203: Soil Physics
- AGRN 5273: Environmental Soil Science

### Issued Patents:

2021 (pending): Data visualization device and method (WO2021055243A1)

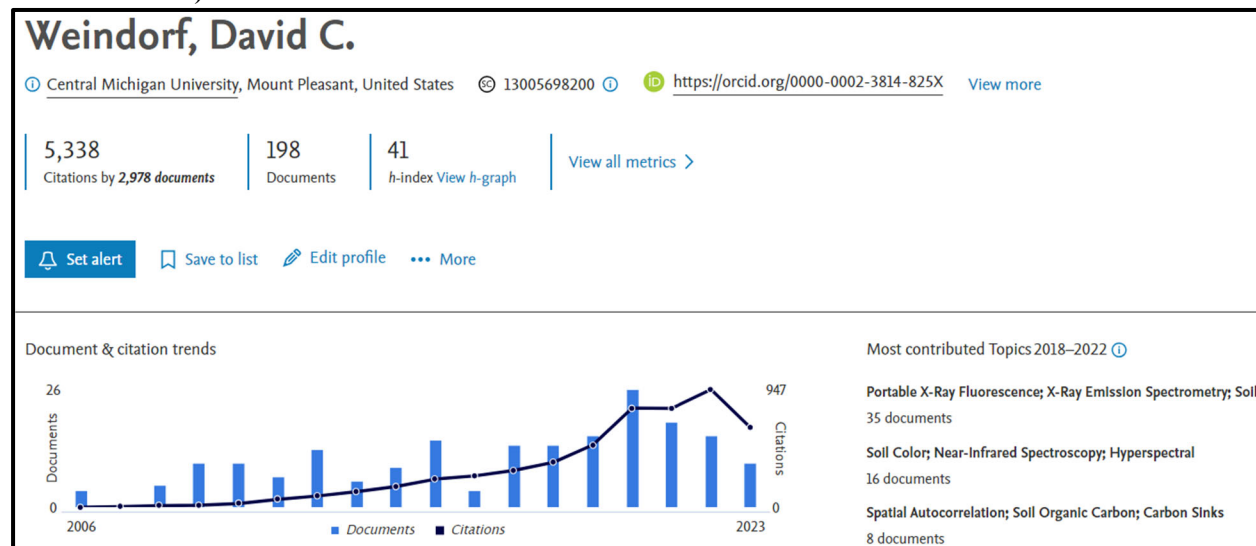
2021: Enhanced chemical characterization of solid matrices using X-ray fluorescence and optical color reflectance (US11187692B2)

2021: Portable apparatus for determining an element composition of a sample (US10900947B2)

2020: Portable apparatus for liquid chemical characterization (US10697953B2)

2018: Portable apparatus for soil chemical characterization (US10107770B2)

### Peer Reviewed Publications (h-index: Google Scholar 50 • Web of Science 39 • Scopus 41 • ORCID: 0000-0002-3814-825X):



1. **Weindorf D.C.**, and S. Chakraborty. 2023. Balancing machine learning and artificial intelligence in soil science with human perspective and experience. **Pedosphere** DOI: 10.1016/j.pedsph.2023.09.010.
2. Lavanya, V., A. Nayak, P.D. Roy, S. Dasgupta, S. Dey, B. Li, **D.C. Weindorf**, and S. Chakraborty. 2023. A smartphone-enabled imaging device for chromotropic acid-based measurement of nitrate in soil samples. **Sensors** 23, 7345. DOI: 10.3390/s23177345.

3. Lima, F.R.D., P. Pereira, I.C.F. Vasques, E.C.S. Junior, M. Mancini, J.R. Oliveira, M.T.A. Prianti, C.C. Windmüller, **D.C. Weindorf**, N. Curi, B.T. Ribeiro, J. Richardson, J.J. Marques, and L.R.G. Guilherme. 2023. Predictive modeling of total Hg background concentration in soils of the Amazon Rainforest biome with support of proximal sensors and auxiliary variables. **Journal of South American Earth Sciences** 129, 104510. DOI: 10.1016/j.jsames.2023.104510.
4. Pierangeli, L.M.P., S.H.G. Silva, A.F.S. Teixeira, M. Mancini, R. Andrade, M.D. Menezes, M.L.C. Sirbescu, J.J. Marques, **D.C. Weindorf**, and N. Curi. 2023. Soil parent material spatial modeling at high resolution from proximal sensing and machine learning: A pilot study. **Journal of South American Earth Sciences** 129, 104498. DOI: 10.1016/j.jsames.2023.104498.
5. Lavanya, V., A. Nayak, S. Dasgupta, S. Urkude, S. Dey, A. Biswas, B. Li, **D.C. Weindorf**, and S. Chakraborty. 2023. A smartphone-integrated imaging device for measuring nitrate and phosphate in soil and water samples. **Microchemical Journal** 193, 109042. DOI:10.1016/j.microc.2023.109042.
6. Sá, R.T.S., M.T.A. Prianti, R. Andrade, A.O. Silva, É.R. Batista, J.V. Santos, F.M. Silva, M.A.C. Carneiro, L.R.G. Guilherme, S. Chakraborty, **D.C. Weindorf**, N. Curi, S.H.G. Silva, and B.T. Ribeiro. 2023. Detailed characterization of iron-rich tailings after the Fundão dam failure, Brazil, with inclusion of proximal sensors data, as a secure basis for environmental and agricultural restoration. **Environmental Research** 228, 115858. DOI: 10.1016/j.envres.2023.115858.
7. Dasgupta, S., S. Debnath, A. Das, A. Biswas, **D.C. Weindorf**, B. Li, A.K. Shukla, S. Das, S. Saha, and S. Chakraborty. 2023. Developing regional soil micronutrient management strategies through ensemble learning based digital soil mapping. **Geoderma** 433, 116457. DOI: 10.1016/j.geoderma.2023.116457.
8. Zimmerman, A.J., D.G. Guitierrez, N. Shaghghi, A. Sharma, A. Deonarine, G. Landrot, **D.C. Weindorf**, and M.G. Siebecker. 2023. Mobility and bioaccessibility of arsenic (As) bound to titanium dioxide (TiO<sub>2</sub>) water treatment residuals (WTRs). **Environmental Pollution** 326, 121468. DOI:10.1016/j.envpol.2023.121468.
9. Salvucci, A., R.B.A. Rafael, S. Cocco, V. Cardelli, L. Camponi, D. Serrani, D. Feniasso, **D.C. Weindorf**, and G. Corti. 2023. Zoogenic soil horizons - termite ecosystem engineers in different agro-ecological regions of Mozambique. **Geoderma Regional** 32, e00618.
10. Camponi, L., V. Cardelli, S. Cocco, D. Serrani, A. Salvucci, A. Cutini, A. Agnelli, G. Fabbio, G. Bertini, P.P. Roggero, **D.C. Weindorf**, and G. Corti. 2023. Holm oak (*Quercus ilex L.*) cover: A key soil-forming force in controlling C and nutrient stocks in long-time coppice-managed forests. **Journal of Environmental Management** 330, 117181.
11. Pierangeli, L.M.P., S.H.G. Silva, A.F.S. Teixeira, M. Mancini, R. Andrade, M.D. Menezes, J.J. Marques, **D.C. Weindorf**, and N. Curi. 2022. Combining proximal and remote sensors in spatial prediction of five micronutrients and soil texture in a case study at farmland scale in Southeastern Brazil. **Agronomy** 12, 2699. DOI:10.3390/agronomy12112699.
12. Zhou, S., Q. Cheng, **D.C. Weindorf**, B. Yang, Z. Yuan, and J. Yang. 2022. Determination of trace element concentrations in organic materials of “intermediate-thickness” via portable X-ray fluorescence spectrometry. **Journal of Analytical Atomic Spectrometry** DOI:10.1039/d2ja00213b.
13. Pham, V., C.M. Jordan, M.G. Siebecker, **D.C. Weindorf**, and T. Dang. 2022. iDVS: interactive 2D and 3D visualizations of proximal sensor data for rapid characterization of soil profiles. **Precision Agriculture** DOI:10.1007/s11119-022-09962-8.
14. Lima, F.R.D., P. Pereira, E.C.S. Junior, I.C.F. Vasques, J.R. Oliveira, C.C. Windmüller, A.V. Inda, **D.C. Weindorf**, N. Curi, B.T. Ribeiro, L.R.G. Guilherme, and J.J. Marques. 2022. Geochemistry signatures of mercury in soils of the Amazon rainforest biome. **Environmental Research** 215, 114147. DOI:10.1016/j.envres.2022.114147.
15. Mancini, M., R. Andrade, A.F.S. Teixeira, S.H.G. Silva, **D.C. Weindorf**, S. Chakraborty, L.R.G. Guilherme, and N. Curi. 2022. Proximal sensor data fusion for tropical soil property prediction 2. Exchangeable/available macronutrients, aluminum, and potential acidity. **Geoderma Regional** 30, e00573. DOI:10.1016/j.geodrs.2022.e00573.
16. Gorthi, S., R. Singh, S. Chakraborty, B. Li, and **D.C. Weindorf**. 2022. Identification of Köppen climate classification and major land resource area in the United States using a smartphone application. **Geoderma Regional** 30, e00567. DOI:10.1016/j.geodrs.2022.e00567.

17. Dasgupta, S., S. Chakraborty, **D.C. Weindorf**, B. Li, S.H.G. Silva, and K. Bhattacharyya. 2022. Influence of auxiliary soil variables to improve PXRf-based soil fertility evaluation in India. **Geoderma Regional** 30, e00557. DOI:10.1016/j.geodrs.2022.e00557.
18. Swetha, R.K., S. Dasgupta, S. Chakraborty, B. Li, **D.C. Weindorf**, M. Mancini, S.H.G. Silva, B.T. Ribeiro, N. Curi, and D.P. Ray. 2022. Using Nix color sensor and Munsell soil color variables to classify contrasting soil types and predict soil organic carbon in Eastern India. **Computers and Electronics in Agriculture** 199, 107192. DOI:10.1016/j.compag.2022.107192.
19. Teixeira, A.F.S., R., Andrade, M. Mancini, S.H.G. Silva, **D.C. Weindorf**, S. Chakraborty, L.R.G. Guilherme, N. Curi. 2022. Proximal sensor data fusion for tropical soil property prediction: Soil fertility properties. **Journal of South American Earth Sciences** 116, 103873. DOI:10.1016/j.jsames.2022.103873.
20. Andrade, R., M. Mancini, A.F.S. Teixeira, S.H.G. Silva, **D.C. Weindorf**, S. Chakraborty, L.R.G. Guilherme, N. Curi. 2022. Proximal sensor data fusion and auxiliary information for tropical soil property prediction: Soil Texture. **Geoderma** 115936. DOI:10.1016/j.geoderma.2022.115936.
21. Riddle, R., M.G. Siebecker, **D.C. Weindorf**, R.K. Shaw, and B.C. Scharenbroch. 2022. Soils in urban and built environments: Pedogenic processes, characteristics, mapping, and classification. **Advances in Agronomy** 173. DOI:10.1016/bs.agron.2022.02.004.
22. Borges, C.S., R.A. Vega, S. Chakraborty, **D.C. Weindorf**, G. Lopes, L.R.G. Guilherme, N. Curi, B. Li, and B.T. Ribeiro. 2022. Pocket-sized sensor to assess the color of plant leaves. **Journal of Plant Physiology** 272, 153686. DOI:10.1016/j.jplph.2022.153686.
23. Divyanth, L.G., S. Chakraborty, B. Li, **D.C. Weindorf**, P. Deb, and C.J. Gem. 2022. Non-destructive prediction of nicotine content in tobacco using hyperspectral image-derived spectra and machine learning. **Journal of Biosystems Engineering** DOI:10.1007/s42853-022-00134-0.
24. Silva, F.M., S.H.G. Silva, A.F.S. Teixeira, A.V. Inda, T. Fruett, **D.C. Weindorf**, L.R.G. Guilherme, and N. Curi. 2022. Using proximal sensors to assess pedogenetic development of Inceptisols and Oxisols in Brazil. **Geoderma Regional** 28, e00465. DOI:10.1016/j.geodrs.2021.e00465.
25. Faria, A.J.G., S.H.G. Silva, R. Andrade, M. Mancini, L.C.A. Melo, **D.C. Weindorf**, L.R.G. Guilherme, and N. Curi. 2022. Prediction of soil organic matter content by combining data from Nix Pro™ color sensor and portable X-ray fluorescence spectrometry in tropical soils. **Geoderma Regional** 28, e00461. DOI:10.1016/j.geodrs.2021.e00461.
26. Pham, V., **D.C. Weindorf**, and T. Dang. 2021. Soil profile analysis using interactive visualizations, machine learning and deep learning. **Computers and Electronics in Agriculture** 191, 106539. DOI: 10.1016/j.compag.2021.106539.
27. Ribeiro, B.T., **D.C. Weindorf**, C.S. Borges, L.R.G. Guilherme, and N. Curi. 2021. Foliar analysis via portable X-ray fluorescence spectrometry: Experimental considerations. **Spectrochimica Acta Part B: Atomic Spectroscopy** 186, 106320. DOI:10.1016/j.sab.2021.106320.
28. Andrade, R., S.H.G. Silva, **D.C. Weindorf**, S. Chakraborty, W.M. Faria, L.R.G. Guilherme, and N. Curi. 2021. Micronutrients prediction via pXRF spectrometry in Brazil: Influence of weathering degree. **Geoderma Regional** 27, e00431. DOI:10.1016/j.geodrs.2021.e00431
29. Li, B., S. Chakraborty, **D.C. Weindorf**, and Q. Yu. 2021. Data integration using model-based boosting. **SN Computer Science** 2, 400. DOI:10.1007/s42979-021-00797-0.
30. Li, B., B.D. Marx, S. Chakraborty, and **D.C. Weindorf**. 2021. Multivariate calibration on heterogeneous samples. **Chemometrics and Intelligent Laboratory Systems** 217, 104386. DOI:10.1016/j.chemolab.2021.104386.
31. Jiang, Z.D., P.R. Owens, C.L. Zhang, K.R. Brye, **D.C. Weindorf**, K. Adhikari, Z.X. Sun, F.J. Sun, and Q.B. Wang. 2021. Towards a dynamic soil survey: Identifying and delineating soil horizons in-situ using deep learning. **Geoderma** 115341. DOI: 10.1016/j.geoderma.2021.115341.
32. Gorthi, S., R.K. Swetha, S. Chakraborty, B. Li, **D.C. Weindorf**, S. Dutta, H. Banerjee, K. Das, and K. Majumdar. 2021. Soil organic matter prediction using smartphone-captured digital images: Use of reflectance image and image perturbation. **Biosystems Engineering** 209:154-169. DOI:10.1016/j.biosystemseng.2021.06.018.
33. Sun, Y., W. Guo, **D.C. Weindorf**, F. Sun, S. Deb, G. Cao, J. Neupane, Z. Lin, and A. Raihan. 2021. Field-scale spatial variability of soil calcium in a semi-arid region: Implications for soil erosion and site-specific management. **Pedosphere** 31(5):705-714. DOI:10.1016/S1002-0160(21)60019-X.

34. Kagiliery, J., S. Chakraborty, B. Li, M. Hull, and **D.C. Weindorf**. 2021. Portable X-ray fluorescence analysis of water: Thin film and water thickness considerations. **International Journal of Environmental Quality** 45:27-41. DOI:10.6092/issn.2281-4485/12991.
35. Pelegrino, M.H.P., S.H.G. Silva, A.J.G. de Faria, M. Mancini, A.F.S. Teixeira, S. Chakraborty, **D.C. Weindorf**, L.R.G. Guilherme, and N. Curi. 2021. Prediction of soil nutrient content via pXRF spectrometry and its spatial variation in a highly variable tropical area. **Precision Agriculture** DOI:10.1007/s11119-021-09825-8.
36. Slaughter, L., S. Deb, S. Chakraborty, B. Li, N. Bakr, B. Edwards, and **D. Weindorf**. 2021. On-farm evaluation of regenerative land-use practices in a semi-arid pasture agroecosystem in West Texas, USA. **Revista Brasileira de Ciência do Solo** 45:e0200163. DOI:10.36783/18069657rbc20200163.
37. Văcar, C.L., E. Covaci, S. Chakraborty, B. Li, **D.C. Weindorf**, T. Frențiu, M. Pârnu, and D. Podar. 2021. Heavy metal-resistant filamentous fungi as potential mercury bioremediators. **Journal of Fungi** 7, 386. DOI:10.3390/jof7050386.
38. Silva, S.H.G., B.T. Ribeiro, M.B.B. Guerra, H.W.P. de Carvalho, G. Lopes, G.S. Carvalho, L.R.G. Guilherme, M. Resende, M. Mancini, N. Curi, R.B.A. Rafael, V. Cardelli, S. Cocco, G. Corti, S. Chakraborty, B. Li and **D.C. Weindorf**. 2021. PXRF in tropical soils: Methodology, applications, achievements and challenges. **Advances in Agronomy** 167. DOI:10.1016/bs.agron.2020.12.001.
39. Teixeira, A.F.S., S.H.G. Silva, **D.C. Weindorf**, S. Chakraborty, T. Carvalho, A.O. Silva, A.A. Guimarães, and F.M.S. Moreira. 2021. Microbiological indicators of soil quality predicted via proximal and remote sensing. **European Journal of Soil Biology** 104, 103315. DOI:10.1016/j.ejsobi.2021.103315.
40. Jha, G., S. Mukhopadhyay, A.L. Ulery, K. Lombard, S. Chakraborty, **D.C. Weindorf**, D. VanLeeuwen, and C. Brungard. 2021. Agricultural soils of the Animas River watershed after the Gold King Mine spill: An elemental spatiotemporal analysis via portable X-ray fluorescence spectroscopy. **Journal of Environmental Quality** DOI:10.1002/jeq2.20209.
41. Ferreira, G.W.D., B.T. Ribeiro, **D.C. Weindorf**, B.I. Teixeira, S. Chakraborty, B. Li, L.R.G. Guilherme, and J.R.S. Scolforo. 2021. Assessment of iron-rich tailings via portable X-ray fluorescence spectrometry: The Mariana dam disaster, southeast Brazil. **Environmental Monitoring and Assessment** 193, 203. DOI:10.1007/s10661-021-08982-7.
42. Silva, S.H.G., **D.C. Weindorf**, W.M. Faria, L.C. Pinto, M.D. Menezes, L.R.G. Guilherme, and N. Curi. 2021. Proximal sensor-enhanced soil mapping in complex soil-landscape areas of Brazil. **Pedosphere** 31(4):615-626. DOI:10.1016/S1002-0160(21)60007-3.
43. Zimmerman, A.J., D.G. Guitierrez, V.M. Campos, **D.C. Weindorf**, S.K. Deb, S.U. Chacón, G. Landrot, N.G.G. Flores, and M.G. Siebecker. 2021. Arsenic speciation in titanium dioxide (TiO<sub>2</sub>) waste produced via drinking water filtration: Potential environmental implications for soils, sediments, and human health. **Environmental Advances** 3, 100036 DOI:10.1016/j.envadv.2021.100036.
44. Zhang, W., J. Sheng, Z. Li, **D.C. Weindorf**, G. Hu, J. Xuan, and H. Zhao. 2021. Integrating rainwater harvesting and drip irrigation for water use efficiency improvements in apple orchards of northwest China. **Scientia Horticulturae** 275, 109728.
45. Zhou, S., **D.C. Weindorf**, Q. Cheng, B. Yang, Z. Yuan, and S. Chakraborty. 2020. Elemental assessment of vegetation via portable X-ray fluorescence: Sample preparation and methodological considerations. **Spectrochimica Acta Part B: Atomic Spectroscopy** 105999. DOI:10.1016/j.sab.2020.105999.
46. Andrade, R., S.H.G. Silva, **D.C. Weindorf**, S. Chakraborty, W.M. Faria, L.R.G. Guilherme, and N. Curi. 2020. Tropical soil order and suborder prediction combining optical and X-ray approaches. **Geoderma Regional** 23, e00331. DOI:10.1016/j.geodrs.2020.e00331.
47. Zhou, S., Q. Cheng, **D.C. Weindorf**, Z. Yuan, B. Yang, Q. Sun, Z. Zhang, J. Yang, and M. Zhao. 2020. Elemental assessment of dried and ground samples of leeches via portable X-ray fluorescence. **Journal of Analytical Atomic Spectrometry** DOI:10.1039/d0ja00328j.
48. Gondek, M.D., **D.C. Weindorf**, C. Thiel, and G. Kleinheinz. 2020. Soluble salts in compost and their effects on soil and plants: A review. **Compost Science and Utilization** 28(2):59-75. DOI:10.1080/1065657X.2020.1772906.
49. Acree, A., **D.C. Weindorf**, L. Paulette, N.V. Gestel, S. Chakraborty, T. Man, C. Jordan, and J.L. Prieto. 2020. Soil classification in Romanian catenas via advanced proximal sensors. **Geoderma** 377, 114587. DOI:10.1016/j.geoderma.2020.114587.

50. Swetha, R.K., P. Bende, K. Singh, S. Gorthi, A. Biswas, B. Li, **D.C. Weindorf**, and S. Chakraborty. 2020. Predicting soil texture from smartphone-captured digital images and an application. **Geoderma** 376, 114562.
51. Mancini, M., **D.C. Weindorf**, M.E.C. Monteiro, A.J.G. de Faria, A.F. dos Santos Teixeira, W. de Lima, F.R.D. de Lima, T.S.B. Dijair, F.D. Marques, D. Ribeiro, S.H.G. Silva, S. Chakraborty, and N. Curi. 2020. From sensor data to Munsell color system: Machine learning algorithm applied to tropical soil color classification via NixPro sensor. **Geoderma** 114471. DOI:10.1016/j.geoderma.2020.114471.
52. Wijewardane, N.K., Y. Ge, N. Sihota, T. Hoelen, T. Miao, and **D.C. Weindorf**. 2020. Predicting total petroleum hydrocarbons in field soils with Vis-NIR models developed on lab-constructed samples. **Journal of Environmental Quality** 49(4):847-857. DOI: 10.1002/jeq2.20102.
53. Gorthi, S., S. Chakraborty, B. Li, and **D.C. Weindorf**. 2020. A portable acoustic sensing device to measure soil moisture. **Computers and Electronics in Agriculture** 105517. DOI:10.1016/j.compag.2020.105517.
54. Acree, A., **D.C. Weindorf**, J.M. Galbraith, N.A. Jelinski, and L. Paulette. 2020. Characterization of Gelolls in northern Alaska, USA. **Soil Science Society of America Journal** 84(3):818-832. DOI:10.1002/saj2.20064.
55. Borges, C.S., **D.C. Weindorf**, D.C. Nascimento, N. Curi, L.R.G. Guilherme, G.S. Carvalho, and B.T. Ribeiro. 2020. Comparison of portable X-ray fluorescence spectrometry and laboratory-based methods to assess the soil elemental composition: Applications for wetland soils. **Environmental Technology & Innovation** 100826. DOI:10.1016/j.eti.2020.100826.
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#### Research Presentations:

1. **Weindorf, D.C.** 2023. Enterprise management via research analytics at an emergent research institution (ERI). Elsevier Research Intelligence International Webinar Series. 14 Jun. 2023. [DCW INVITED SPEAKER]
2. Pierangeli, P., S.H.G. Silva, M.C. Sirbescu, and **D.C. Weindorf**. 2022. Preliminary trace-element distribution using PXRF and geochemical data on amphibolite and pegmatite rocks from Southern Minas Gerais, Brazil. Joint 56th Annual North-Central / 71st Annual Southeastern Section Meeting – Geological Society of America. Cincinnati, OH. 7-8 Apr. 2022.
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103. Chakraborty, S., **D.C. Weindorf**, C. Morgan, Y. Ge, and J. Galbraith. 2010. Rapid identification of oil contaminated soils using visible near infrared diffuse reflectance spectroscopy. ASA-CSSA-SSSA National Meetings. 1 November, Long Beach, CA. <http://a-c-s.confex.com/crops/2010am/webprogram/Paper58594.html>
104. Zhu, Y., **D.C. Weindorf**, N. Bakr, and S. Chakraborty. 2010. In-situ evaluation of peri-urban heavy metal contamination using portable XRF. ASA-CSSA-SSSA National Meetings. 2 November, Long Beach, CA. <http://a-c-s.confex.com/crops/2010am/webprogram/Paper59114.html>
105. Bakr, N., **D.C. Weindorf**, M. Bahnassy, and M. El-Badawi. 2010. Land sensitivity analysis for fragile agro-ecosystem: Environmental indicators. ASA-CSSA-SSSA National Meetings. 2 November, Long Beach, CA. <http://a-c-s.confex.com/crops/2010am/webprogram/Paper60728.html>
106. Haggard, B., **D.C. Weindorf**, A. Hiscox, T. Rusu, and H. Cacovean. 2010. 10cm Soil temperature data validation and model in the Transylvanian Plain, Romania. ASA-CSSA-SSSA National Meetings. 3 November, Long Beach, CA. <http://a-c-s.confex.com/crops/2010am/webprogram/Paper59230.html>
107. Zhang, W., X. Shi, **D.C. Weindorf**, and D. Yu. 2010. Variation of sediment concentration based on water erosion process and its drivers under different soil management systems. ASA-CSSA-SSSA National Meetings. 3 November, Long Beach, CA. <http://a-c-s.confex.com/crops/2010am/webprogram/Paper63141.html>
108. Rusu, T., **D.C. Weindorf**, B. Haggard, H. Cacovean, P. Moraru, M. Sopterean, A. Pop, and L. Pop. 2010. Spatial soil temperature and moisture monitoring across the Transylvanian plain, in Romania. *In* Proceedings of the Second Conference with International Participation – Modern Technologies for Environmental Protection, 2-5 June, Sibiu, Romania. pp. 148-151.
109. Rusu, T., **D.C. Weindorf**, B. Haggard, H. Cacovean, P. Moraru, M. Sopterean, I. Pacurar, A. Pop, and L. Pop. 2010. Soil temperature, water and humus conservation of the Transylvanian Plain, Romania. *In* International Conference of agricultural Engineering, AgEng 2010, Clermont-Ferrand, France, pp. 311.
110. **Weindorf, D.C.**, N. Bakr, Y. Zhu, B. Haggard, S. Johnson, and J. Daigle. 2010. Characterization of placic horizons in central Louisiana, USA. Proceedings of the 19<sup>th</sup> World Congress of Soil Science. 1-6 August, Brisbane, Australia.

111. Cacovean, H., T. Man, T. Rusu, **D.C. Weindorf**, I. Fodorean, C. Moldovan, V. Puiu, and A. Pop. 2009. Land-use management using a soil survey geographic database for the Viisoara-Aiton hills (Transylvanian Plain-Romania). *In* Van Ittersum, M.K., J. Wolf and H.H. Van Laar (Eds), 2009. Proceedings of the Conference on Integrated Assessment of Agriculture and Sustainable Development: Setting the Agenda for Science and Policy (AgSAP 2009). Egmond aan Zee, The Netherlands, 10-12 March 2009. Wageningen University and Research Centre, Wageningen, 560 pp.
112. **Weindorf, D.C.**, Y. Zhu, S. Johnson, and N. Bakr. 2009. Spatial modelling of soil nutrients: A PXRf approach. ASA-CSSA-SSSA National Meetings. 3 November, Pittsburgh, PA. <http://a-c-s.confex.com/crops/2009am/webprogram/Paper52897.html>
113. Zhu, Y., **D.C. Weindorf**, B. Haggard, S. Johnson, and S. Chakraborty. 2009. Digital soil mapping and SSURGO data: A case study from Louisiana. ASA-CSSA-SSSA National Meetings. 3 November, Pittsburgh, PA. <http://a-c-s.confex.com/crops/2009am/webprogram/Paper52616.html>
114. Johnson, S., **D.C. Weindorf**, M. Selim, Y. Zhu, N Bakr, B. Haggard, and S. Chakraborty. 2009. Spatial and temporal movement of soil nutrients in Southern Louisiana. ASA-CSSA-SSSA National Meetings. 3 November, Pittsburgh, PA. <http://a-c-s.confex.com/crops/2009am/webprogram/Paper53872.html>
115. Chakraborty, S., **D.C. Weindorf**, M. Selim, B. Li, C. Morgan, and J. Galbraith. 2009. Rapid onsite identification of oil contaminated soils using visible near infrared spectroscopy. ASA-CSSA-SSSA National Meetings. 3 November, Pittsburgh, PA. <http://a-c-s.confex.com/crops/2009am/webprogram/Paper52032.html>
116. Haggard, B., **D.C. Weindorf**, M. Selim, J. Wang, T. Rusu, and H. Cacovean. 2009. A coarse evaluation of soil temperature in the Transylvanian Plain, Romania. ASA-CSSA-SSSA National Meetings. 3 November, Pittsburgh, PA. <http://a-c-s.confex.com/crops/2009am/webprogram/Paper53190.html>
117. Bakr, N., **D.C. Weindorf**, M. Bahnassy, S. Marai, and M. Elbadawi. 2009. Hybrid classification approach and NDVI for land cover change detection in a newly reclaimed area of Egypt. ASA-CSSA-SSSA National Meetings. 3 November, Pittsburgh, PA. <http://a-c-s.confex.com/crops/2009am/webprogram/Paper52031.html>
118. **Weindorf, D.C.**, and B. Tubana. 2009. Soil Survey of Saint James Parish, Louisiana (Soil Fertility Interpretations)[online]. USDA-NRCS. Available at [http://soils.usda.gov/survey/printed\\_surveys/state.asp?state=Louisiana&abbr=LA](http://soils.usda.gov/survey/printed_surveys/state.asp?state=Louisiana&abbr=LA).
119. **Weindorf, D.**, B. Haggard, T. Rusu, H. Cacovean, S. Johnson. 2009. Soil temperatures of the Transylvanian Plain, Romania. Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj – Napoca, pg. 237-242, ISSN 1843 – 5246, electronic ISSN 1843 – 5386. Prospects for the 3<sup>RD</sup> Millennium Agriculture International Meetings, 7-8 October, USAMV Cluj-Napoca. [KEYNOTE SPEAKER]
120. Rusu, T., **D.C. Weindorf**, B. Haggard, and H. Cacovean. 2009. Soil temperatures of the Transylvanian Plain, Romania. EcoHCC'09: International Conference on Ecohydrology and Climate Change, 10-12 September, Tomar, Portugal.
121. **Weindorf, D.C.** 2009. New technologies in field soil survey. Two Days of Soil. Universita Politecnica delle Marche. 10-11 March, Ancona, Italy. [INVITED SPEAKER]
122. **Weindorf, D.C.**, N. Rolong, R. Ferrell, B. Allen, W. Hudnall, J. Herrero, and Y. Zhu. 2008. Evaluation of portable x-ray fluorescence for gypsum quantification in soils. ASA-CSSA-SSSA National Meetings. 8 October, Houston, TX. <http://a-c-s.confex.com/crops/2008am/webprogram/Paper47306.html>
123. **Weindorf, D.C.**, Y. Zhu, T. Rusu and H. Cacovean. 2008. Lab evaluation of field portable x-ray fluorescence as a proxy for soil gypsum quantification. *In* Abstracts, 5<sup>th</sup> International Symposium on Soil Minimum Tillage Systems, Cluj-Napoca, Romania. 18-19 Jul. 2008. USAMV, Cluj-Napoca, Romania.
124. Sheffield, R.E. and **D.C. Weindorf**. 2008. Irrigation scheduling made easy: using the “look and feel” method. LSU AgCenter Extension Publication XXXX. Baton Rouge, LA.
125. Zhu, Y., S. Namikas and **D. Weindorf**. 2008. Simulations of spatial and temporal variability in beach surface moisture content: model validation. American Association of Geographers National Meeting, 15-19 April, Boston, MA. [http://communicate.aag.org/eseries/aag\\_org/program/AbstractDetail.cfm?AbstractID=18546](http://communicate.aag.org/eseries/aag_org/program/AbstractDetail.cfm?AbstractID=18546)
126. Johnson, S., B. Haggard, B. Rinard, **D. Weindorf**, A. McWhirt, and C. Spinks. 2008. High resolution soil survey of Capulin Volcano National Monument. 42nd Annual Meeting of South-Central Section of the

Geological Society of America, 30 March - 1 April, Hot Springs, AR.

[http://gsa.confex.com/gsa/2008SC/finalprogram/abstract\\_136595.htm](http://gsa.confex.com/gsa/2008SC/finalprogram/abstract_136595.htm)

127. Muir, J.P., B. Lambert, **D. Weindorf**, M. Yu, R. Wittie and S. Mukhtar. 2008. Tightening the phosphorus cycles on CAFO dairies in north-central Texas. Proc. 2008 National Water Conference, 3-7 February, Sparks, NV. <http://www.usawaterquality.org/conferences/2008/abstracts/Muir08.pdf>
128. **Weindorf, D.C.** 2008. Understanding Louisiana Soils. LSU AgCenter Publication 3034. Baton Rouge, LA.
129. Rusu, T., P. Guş, I. Bogdan, H. Căcovean, **D.C. Weindorf**, I. Păcurar, and M. Dirja. 2007. The influence of minimum soil tillage systems on water conservation in soil. Transactions the "Second International Symposium of Soil Water Measurement using Capacitance, Impedance and Time Domain Transmission (TDT)", USDA-ARS Beltsville Agricultural Research Center, Beltsville, Maryland, USA, 28 October 28 through 02 November, Paper 4.1-1- 2007.
130. Parsley, J., **D.C. Weindorf**, and R. Wittie. 2007. The influence of parent material on the genesis of the Miles soil series. ASA-CSSA-SSSA National Meetings. 5 November, New Orleans, LA. <http://a-c-s.confex.com/crops/2007am/techprogram/P31583.HTM>
131. Dia, M., **D.C. Weindorf**, C. Thompson, and H. Cummings. 2007. Spatial distribution of heavy metals in the soils of Erath County of North Central Texas. ASA-CSSA-SSSA National Meetings. 6 November, New Orleans, LA. <http://a-c-s.confex.com/crops/2007am/techprogram/P31625.HTM>
132. Haggard, B.J. and **D.C. Weindorf**. 2007. Morphology of soils in Alaska, USA. Bulletin USAMV-CN 63:28-33.
133. **Weindorf, D.C.**, B. Rinard, S. Johnson, B. Haggard, J. McPherson, M. Dia, C. Spinks, and A. McWhirt. 2007. High resolution soil survey of Capulin Volcano National Monument, New Mexico, USA. Bulletin USAMV-CN 63:23-27.

**Graduate Students Chaired (those in bold have gone on to serve as academicians):**

Autumn Acree (PhD), Texas Tech University, 2020

- Dissertation: Contemporary advancements in soil characterization: Geochemical, morphological, and spectroscopic approaches
  - Winner of the 2020 Horn Professors Graduate Achievement Award

Ashmita Rawal (MS), Texas Tech University, 2019

- Thesis: Determination of base saturation percentage in agricultural soils via portable X-ray fluorescence spectrometer

**Chenhui Li (PhD)**, Texas Tech University, 2017

- Dissertation: Soil ecological indicator response to the chronosequence of semi-arid Conservation Reserve Program (CRP) lands

Sarah Shutic (MS), Texas Tech University, 2017

- Thesis: Forensic identification of pharmaceuticals via combined portable X-ray fluorescence and diffuse reflectance spectroscopy

Travis Conley (PhD), Texas Tech University, 2016

- Dissertation: Paleo-environmental Landscape Evolution on the Eastern Caprock Escarpment of the Southern High Plains, Texas

**Aakriti Sharma (MS)**, Texas Tech University, 2015

- Thesis: Characterization of soils via portable X-ray fluorescence spectrometer

Samantha Swanhart (MS): Louisiana State University, 2013

- Thesis: Measuring soluble salts in soils via portable X-ray fluorescence spectrometry

**Amanda McWhirt (MS)**: Louisiana State University, 2012

- Thesis: Visible near-infrared diffuse reflectance spectroscopy and portable X-ray fluorescence spectroscopy for rapid compost analysis

**Noura Bakr (PhD)**: Louisiana State University, 2013

- Dissertation: Sustainable natural resource management in regional ecosystems: Case studies in semi-arid and humid regions

**Somsubhra Chakraborty (PhD)**: Louisiana State University, 2011



- Dissertation: Rapid identification of oil contaminated soils using visible near infrared diffuse reflectance spectroscopy

**Beatrix Haggard (PhD):** Louisiana State University, 2012

- Dissertation: Soil climate and pedology of the Transylvanian Plain, Romania

Stephanie Johnson (MS): Louisiana State University, 2010

- Thesis: Spatial and temporal variabilities on soils in St. Landry Parish, Louisiana

Jo Parsley (MS): Tarleton State University, 2008

- Thesis: Influence of parent material on the genesis of the Miles soil series

Mahendra Dia (MS): Tarleton State University, 2008

- Thesis: Spatial distribution of heavy metals in the soils of Erath County of northern central Texas

John Sackett (MS): Tarleton State University, 2005

- Thesis: Bulk density of the Owens, Harpersville, and Throck soil series

**Anil Somenahally (MS):** Tarleton State University, 2006

- Thesis: Spatial variability of soil test phosphorus in North Central Texas dairy soils

**Landon Darilek (MS):** Tarleton State University, 2006

- Thesis: Phosphorus sequestration in soils of Erath County

Jessica Zylmann (MS): Tarleton State University, 2005

- Thesis: Field truthing of United States Department of Agriculture-Natural Resources Conservation Service soils survey geographic data on Hunewell Ranch, Erath County, Texas

Randy Bow (MS): Tarleton State University, 2003

- Thesis: Interaction of cool-season legumes overseeded in switchgrass

#### **Graduate Student Committee Service:**

- Amanda Jo Zimmerman (PhD), Texas Tech University/Central Michigan University
- Vung Pham (PhD), Texas Tech University/Central Michigan University
- Cynthia Jordan (MS), Texas Tech University/Central Michigan University
- Randy Riddle (MS): Texas Tech University/Central Michigan University
- Bogdan Duda (PhD): Universitatea de Științe Agricole și Medicină Veterinară (Romania)
- Shelby Young (MS): Texas Tech University
- James Green (MS): Texas Tech University
- Tarek Kandakji (MS): Texas Tech University
- Cory Bryant (MS): Texas Tech University
- Hugo Gee (PhD): Louisiana State University
- Amanda Jo Zimmerman (MS): Louisiana State University
- Josh Lofton (PhD): Louisiana State University
- Drew Fowler (MS): Louisiana State University

#### **International Exchange Scholars Hosted:**

- Titus Man (Romania)
- Bruno Ribeiro (Brazil)
- Renata Andrade (Brazil)
- Somsubhra Chakraborty (India)
- Abdo Aldabaa (Egypt)
- Juan Herrero (Spain)
- Dandan Wang (China)
- Hongjie Wang (China)
- Valeria Cardelli (Italy)
- Francesco Bigaran (Italy)
- Candice McGladdery (South Africa)
- Jaco Koch (South Africa)

- Fujun Sun (China)
- Maria Fernanda Godoy Sosa (Honduras)
- José Luis Prieto Fajardo (Honduras)

### Special Mentorship of K-12 Students:

- Julia Kagiliery (Episcopal School of Jacksonville, FL)
  - Regeneron International Science and Engineering Fair Finalists, 2021
    - 2<sup>nd</sup> place, Earth and Environmental Science (\$2,000 scholarship)
  - 58th National Junior Science and Humanities Symposium, 2020 - 1st Place Oral Presentations • Environmental Science (\$12,000 scholarship)
    - Research Title: A dual sensor machine learning approach to sulfur quantification of lignite coal
  - **Kagiliery, J.**, S. Chakraborty, A. Acree, D.C. Weindorf, E.C. Brevik, N.A. Jelinski, B. Li, and C. Jordan. 2019. Rapid quantification of lignite sulfur content: Combining optical and X-ray approaches. *International Journal of Coal Geology*, 216 <https://doi.org/10.1016/j.coal.2019.103336>.
  - Regeneron International Science and Engineering Fair Finalists, 2020 (cancelled due to Covid-19)
  - Genius Olympiad International Competition Finalist, 2020 (cancelled due to Covid-19) International Competition
  - 1st place, Oral Speaker at Sigma Xi Society Competition for Scientific Research (International Competition)
  - Bronze Medal, Inspo Research & Innovation Competition– North American Competition
  - 1st Place Northeast Florida Science Fair in Environmental Science, 2020
  - 2nd Place, State of Florida Junior Science & Humanities Symposium Speaker, 2020
  - Florida Science and Engineering Fair State Finalist, 2020 (cancelled due to Covid-19)
  - Society of American Military Engineers Outstanding Achievement Award, 2020
  - ASM Materials Education Foundation Most Outstanding Project Award, 2020
  - NOAA's Taking the Pulse of the Planet Award, 2020
  - NASA Earth System Science Project Award, 2020
  - Association for Women Geoscientists Outstanding Project, 2020
  - Inspiring Excellence Inc. Award, 2020
  - Yale Science & Engineering Association Most Outstanding Project Award, 2020
  - 64th State Science and Engineering Fair of Florida 4th Place Award Senior Section for Senior Earth and Environmental Sciences, 2019
  - Florida State Science and Engineering Fair Florida Society of Environmental Analysts Award Outstanding Project 3rd Place Senior Section, 2019
- Jalen Scott (Kenilworth Science and Technology Charter School of Baton Rouge, LA)
  - Golden Climate International Environmental Project Olympiad in Nairobi, Kenya – Grand Prize
    - Research Title: Lead contamination in schoolyard soils
  - **Scott, J.**, D.C. Weindorf, and E. Matthews. 2013. Lead contamination in schoolyard soils. *Soil Horizons* doi:10.2136/sh12-12-0034.
- Desirae Gardner (Kenilworth Science and Technology Charter School of Baton Rouge, LA)
  - **Gardner, D.**, D.C. Weindorf, and M. Flynn. 2013. Presence of chromium, copper, and arsenic in schoolyard soils. *Soil Horizons* doi:10.2136/sh12-12-0032.
- Camille Weindorf (Irons Middle School of Lubbock, TX)
  - Chakraborty, S., D.C. Weindorf, **C.A. Weindorf**, B.S. Das, B. Li, B. Duda, S. Pennington, and R. Ortiz. 2017. Semi-quantitative evaluation of secondary carbonates via portable X-ray fluorescence spectrometry. *Soil Science Society of America Journal* 81:844-852. doi:10.2136/sssaj2017.01.0019.
  - Koch, J., S. Chakraborty, B. Li, J. Moore-Kucera, P. van Deventer, A. Daniell, C. Faul, T. Man, D. Pearson, B. Duda, **C.A. Weindorf**, and D.C. Weindorf. 2017. Proximal sensor analysis of mine tailings in South Africa: An exploratory study. *Journal of Geochemical Exploration* 181:45-57.

### Select Grantsmanship:

- Magee, H., and D.C. Weindorf. 2023. Making data accessible: Developing research analytics (RA) in emerging research institutions (ERIs). National Science Foundation (NSF). [\$100,000] – Pending.
- Farmer, M., S. Fritts, T. Kingston, R. Verble, and D.C. Weindorf. 2017. OIA: IRES: Sustainable development of a tropical agroforestry program in the rural Borneo Highlands. National Science Foundation (NSF). [\$218,891]
- Weindorf, D.C. 2017. Pilot study on the use of PXRF for wastewater analysis. US Forest Service through Dickinson State Univ. [\$2,500].
- Weindorf, D.C. 2016. Monitoring farmland soils for potential heavy metal contamination. USDA-NRCS through NMSU [\$24,000].
- Weindorf, D.C. 2015. Rapid assessment of soil metal concentrations along the Animas River, New Mexico. USDA-NRCS. [\$10,000]
- Weindorf, D.C. 2015. Arctic soils documentary. USDA-NRCS. [\$50,000]
- Weindorf, D.C. 2015. Arctic soils documentary. Soil Science Society of America. [\$10,000]
- Weindorf, D.C. 2015. Arctic soils documentary. University of Alaska Fairbanks. [\$10,000]
- Weindorf, D.C. 2015. Soil spatial variability assessment at Bayer CropScience facilities in Europe. Bayer CropScience. [\$25,000]
- Weindorf, D.C., T. Udeigwe, and J. Moore-Kucera. 2013. High resolution soil characterization of Bayer CropScience Facilities. Bayer CropScience. [\$75,000]
- Weindorf, D.C., J. Moore-Kucera, G. Ritchie, and T. Udeigwe. 2013. Water quality protection in the Southern High Plains (SHP) through subsoil nutrient management. CASNR Research Enhancement Program. [\$4,500]
- Haggard, B., and D.C. Weindorf. 2013. Optimization of potassium fertilization for corn and soybean production. Louisiana Soybean and Grain Research and Promotion Board. [\$15,000]
- Weindorf, D.C., and D. Harrell. 2012. Rapid, on-site evaluation of soil salinity and Zn deficiency. Louisiana Rice Research Board. [\$32,175]
- Keim, R., S. King, D.C. Weindorf, and F. Willis. 2012. Adaptive hydrological management of Catahoula Lake. Louisiana Department of Wildlife and Fisheries. [\$206,323]
- Weindorf, D.C. 2012. Development of VisNIR DRS for on-site quantification of total petroleum hydrocarbons in contaminated soils. Chevron. [\$80,000]
- Weindorf, D.C. and Y. Zhu. 2011. Oil-contaminated sample collection on Louisiana coastal areas: Toward an optical sensor for quick detection and quantification. Gulf of Mexico Research Initiative [\$48,178]
- Weindorf, D.C. 2011. Pedological applications of portable X-ray fluorescence spectrometry. Olympus/Innov-X [\$8,175]
- Weindorf, D.C. 2011. Cooperative agreement for enhanced rapid carbon assessment. USDA-NRCS [\$15,070]
- Weindorf, D.C. 2011. Soil classification, conservation, and interpretations on the Transylvanian Plain, Romania: A GIS approach. Council for International Exchange of Scholars (US Fulbright Program). [\$21,460]
- Weindorf, D.C. 2010. Reflectance spectrometer testing and modeling. BP Exploration and Production [\$25,000]
- Weindorf, D.C. 2010. Collaborative agreement for Deepwater Horizon oil spill demonstration. BP Exploration and Production. [\$7,000]
- Weindorf, D.C. 2010. Land management impacts on soil carbon stocks in Louisiana. USDA-NRCS [\$30,000]
- Weindorf, D.C. and Y. Zhu. 2010. Use of portable X-ray fluorescence spectrometry for environmental quality assessment of peri-urban agriculture. Innov-X. [\$25,000]
- Weindorf, D.C. 2008. Academic & research relations grant award. Innov-X Systems. [\$4,500]
- Weindorf, D.C. 2008. Discretionary funds for hosting visiting scientist Noura Bakr from Egypt. Egyptian Cultural & Educational Bureau. [\$5,000]
- Weindorf, D.C., and M. Selim. 2008. Highway right-of-way erosion remediation: Implementation of a residue management BMP. LaDEQ & US-EPA (319). [\$354,241]

- Weindorf, D.C., C. Morgan, J. Galbraith, and Y. Zhu. 2008. Rapid, on-site identification of oil contaminated soils using visible near infrared spectroscopy. LAOSRP. [\$51,438]
- Tubana, B., D.C. Weindorf, J. Wang, and J. Teboh. 2008. Using ground-based remote sensor for predicting sugarcane yield potential. American Sugarcane League. [\$6,500]
- Weindorf, D.C. 2007. Interagency agreement to fund parish soil survey point data capture. USDA-NRCS (Louisiana). [\$40,000]
- Weindorf, D.C. 2006. Compost quality assurance for the State of Texas. Texas Department of Transportation. [\$104,604]
- Weindorf, D.C. 2006. Interagency agreement to fund soils analysis and equipment purchase. USDA-NRCS. [\$95,000]
- Weindorf, D.C. 2005. NRCS Interagency agreement to fund soils research at Tarleton State University. USDA-NRCS. [\$75,000]
- Muir J.P., B., T. Butler, D.C. Weindorf, R. Wittie, and S. Mukhtar. 2004. Phytoremediation of excessively high phosphorus soils and subsequent reduced phosphorus runoff into the North Bosque River. US-EPA (319) & TSWCB. [\$238,000]
- Muir J.P., B. Lambert, J. Tomberlin, T. Butler, M. Yu, and D.C. Weindorf. 2004. Strategies for management and subsequent reduced surface water phosphorus runoff from dairies in the North Bosque and Leon River Watersheds. USDA-NIWQP. [\$580,000]
- Weindorf, D.C., C.A. Thompson, and L.D. Schultz. 2003. Major research instrumentation (MRI) grant for purchase of an inductively coupled plasma atomic emission spectrometer. National Science Foundation (NSF). [\$107,701]
- Weindorf, D.C. 2003. Interagency agreement to fund soils research at Tarleton State University. USDA-NRCS. [\$28,040]

#### **Honors:**

- Distinguished Alumnus. 2023. Davis College of Agricultural Science and Natural Resources, Texas Tech University.
- Visiting Professor. 2019. Universidade Federal de Lavras (Brazil). Short-course taught: “Proximal sensor applications for optimized food security in Brazil.” PrInt-Capes Program.
- Global Vision Lifetime Achievement Award – Honorable Mention. 2019. TTU Office of International Affairs.
- Fulbright Specialist. 2018. US State Department / World Learning (Duty station: Indian Institute of Technology, Kharagpur, India).
- National Science Foundation Regional i-Corps regional completion (national qualifier). 2017. Texas Tech University Innovation Hub.
- International Impact Award. 2017. TTU College of Agricultural Sciences & Natural Resources.
- Fellow. 2017. Soil Science Society of America.
- Presidential Award. 2017. Soil Science Society of America.
- Extraordinary Professor – Northwest University. 2017-2019. Potchefstroom, South Africa.
- Outstanding Board Member. 2016-2017. Pedosphere – Elsevier Press. Chinese Academy of Sciences.
- Invited Speaker – US Senate Committee on Indian Affairs. 2015. Washington, DC.
- Invited Speaker – United Nations – Food and Agriculture Organization. 2015. Rome, Italy.
- Faculty International Scholarship Award. 2015. TTU Office of International Affairs.
- Invited Speaker – Kolkata Chapter of Soil Science Society of India. 2014. Kolkata, India.
- Eagle Award for service to the National Cooperative Soil Survey. 2012. USDA-NRCS.
- Agricultural Teacher Honor Role. 2011. LSU Gamma Sigma Delta.
- Fulbright Scholar. 2011. Universitatea de Științe Agricole și Medicină Veterinară Cluj-Napoca.
- Sedberry Award. 2010. Outstanding graduate teacher in the College of Agriculture. LSU.
- Teaching Award of Merit. 2010. LSU Gamma Sigma Delta.

## **Notable Institutional Service:**

### **Central Michigan University**

- Authorized Institutional Official
- Member, Academic Planning Council
- Member, President's Cabinet
- Member, Senior Leadership Team
- Member, Enterprise Risk Committee
- Member, Provost's Advisory Council
- Member, HIPAA Executive Steering Committee
- Member, CMU Clinical Research Institute (CRI) Advisory Board
- Member, Collaborative on Academic Careers in Higher Education (COACHE) faculty survey
- Member, Strategic Planning Advisory Council
- Member, Senior Budget Advisory Council
- Member, Faculty Research and Creative Endeavors (FRCE) Committee
- Chair, Research Advisory Committee
- Commencement Reader
- Liaison, Midwest Research and Graduate Administrators Forum (MRGAF)
- Liaison, Council on Research – Association of Public and Land Grant Universities (COR APLU)
- Liaison, Fulbright Scholar Program
- Board of Directors, Central Michigan University Research Corporation (CMURC)
- Search committee member: 1) Dean – College of Science and Engineering, 2) Senior Associate Dean for Research - College of Medicine
- Search committee chair: 1) Executive Director – Office of Research and Graduate Studies, 2) Coordinator of Financial Operations – Office of Research and Graduate Studies 3) Director – Office of Research Compliance

### **Texas Tech University**

- Secretary/CII Executive Committee (2018), International Agriculture Section (IAS) of the Association of Public and Land-grant Universities (APLU)
- Associate Director, STEM Center for Outreach, Research & Education
- Executive Producer, Between Earth and Sky – Climate Change On The Last Frontier
- CASNR Strategic Planning Committee
- Delegate, International Affairs Council
- CASNR Safety Coordination
- CASNR Project Revolution Liaison
- Commencement Reader
- Liaison to the National Cooperative Soil Survey
- Plant and Soil Science Departmental Chair Search Committee
- Mentoring Committee Chair – Dr. Sanjit Deb
- Mentoring Committee Member – Dr. Alexandra Protopopova
- Search Committee Chair: 1) Chair of Landscape Architecture Department; 2) Assistant/Associate Professor in Soil Microbiology/Biochemistry; 3) Assistant Professor of Horticultural Soil Chemistry
- Coach, Intercollegiate Soils Judging Team

### **Louisiana State University**

- Liaison to the National Cooperative Soil Survey
- Coach, Intercollegiate Soils Judging Team
- School of Plant, Environmental, and Soil Sciences Graduate Advisor

### **Tarleton State University**

- Liaison to the National Cooperative Soil Survey
- Coach, Intercollegiate Soils Judging Team
- Faculty Senate Executive Committee
- Writing Proficiency Task Force

### **Professional Consultation/Testimony (International)**

Association Zanmi Agrikol (Central Plateau, Haiti), 2023-Present

- Kellogg Foundation partnership (Consultation, support, scientific advisor, fieldwork, training)

Brane Enterprises Private Limited (Hyderabad, India), 2023-Present

- US/UK/India (Consultation, support)

X-Centric – AgTech, 2020-Present

- US/Australia (Scientific advisor)

Sustainable Development - Environmental Compliance and Enforcement (Manitoba, Canada), 2017

- Manitoba, Canada (Consultation, report)

### **Professional Consultation/Testimony (Domestic)**

Paranjpe Mahadass Ruemke LLP (Houston, TX) / Nix Patterson LLC (Austin, TX), 2019-Present

- Harris County, TX (Two cases; Consultation, site visits, sampling, report, deposition)

Illinois State University (Normal, IL), 2023

- Program Reviewer: Advancing Research and Creative Scholarship (ARCS) (Reviewer, consultation, panel discussion)

Talbot, Carmouche, & Marcello (Baton Rouge, LA), 2023

- St. Mary Parish, LA (Consultation, site visit, report)

Fishman Haygood LLC (New Orleans, LA), 2021-2022

- St. Mary Parish, LA (Consultation, site visit, sampling, report, deposition, testimony)
  - Admitted as an expert in Agronomy (inclusive of root studies), Soil Science, and Environmental Science by the 16<sup>th</sup> Judicial District Court (2022)
- Plaquemines Parish, LA (Consultation, site visit, sampling, report, deposition, testimony)
  - Admitted as an expert in Agronomy (inclusive of root studies), Soil Science, and Environmental Science by the 25<sup>th</sup> Judicial District Court (2022)
- Iberia Parish, LA (Consultation)

Stockard, Johnston & Brown, P.C., (Amarillo, TX), 2018

- Moore County, TX (Consultation, site visit, sampling, report, deposition/testimony)

Munsch, Hardt, Kopf, & Harr, P.C. (Dallas, TX), 2015-2017

- Coke County, TX (Consultation, site visit, sampling, report)
- Taylor County, TX (Consultation, site visit, sampling)

Talbot, Carmouche, & Marcello (Baton Rouge, LA), 2013-2018

- Richland Parish, LA (Consultation, site visit, report, deposition)
- Cameron Parish, LA (Consultation, site visit, sampling, report)
- Lafourche Parish, LA (Consultation, site visit, sampling, report)
- Caddo Parish, LA (Consultation, site visit, report)
- Avoyelles Parish, LA (Consultation, site visit, report, deposition)
- Ascension Parish, LA (Consultation, site visit, report)

- Cameron Parish, LA (Consultation, site visit, report)
- Union Parish, LA (Consultation, site visit, sampling, report, deposition)
- Terrebonne Parish, LA (Consultation, site visit, report)

**References:** An extensive list of references worldwide is available upon request