

Curriculum Vita

C. Lee Burras

Morrill Professor
Department of Agronomy
Iowa State University, Ames, IA 50011 USA
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Associate Director for Agronomy & Land Use
Center for Sustainable Rural Livelihoods

Other appointments

Professor of Geology, Iowa State University
Professor of Soil Science, Graduate Program, Iowa State University
Professor of Environmental Science, Iowa State University
Professor of Global Resource Systems, Iowa State University

Foreign Associate – Postgraduate College Facultad de Agronomia
Universidad de la Republica, Montevideo, Uruguay

Adjunct Professor - Iowa Lakeside Laboratory
The University of Iowa, Iowa City, IA 52242 USA

Degrees Held

PhD	Agronomy/Soil Science	The Ohio State University	1992
MS	Soil Science	Iowa State University	1984
BS	Agronomy	Iowa State University	1981

Professional Experience

2020-Present	Morrill Professor
1995-2020	Assistant Professor, Associate Professor & Professor, Iowa State University (ISU)
1990-1995	Assistant Professor, University of Louisiana-Lafayette (ULL)
1989-1990	Teaching Associate, The Ohio State University (OSU)
1984-1989	Research Associate, Soil Characterization Laboratory, OSU
1982-1984	Graduate Assistant, Iowa State University
1979-1981	Soil Scientist Trainee USDA-NRCS, Iowa

Honorary & Professional Society Memberships

Phi Kappa Phi
Phi Beta Delta
Sigma Xi
Gamma Sigma Delta
American Association for the Advancement of Science
American Society of Agronomy
Crop Science Society of America
European Geosciences Union
Iowa Academy of Sciences
Soil and Water Conservation Society
Soil Science Society of America

Position Responsibility

I advance ISU's land-grant mission by creating, sharing, and applying knowledge that help to advance our students, Iowa and the world. My primary responsibility is effective teaching. I annually offer several resident courses as well as immersion experiences. I create original knowledge important to Iowa and the world through research in pedology and agronomy. I mentor graduate students. I author scholarly publications and presentations. I serve professional societies. I apply and share my expertise via the National Cooperative Soil Survey, the Iowa Cooperative Soil Survey, the Center for Sustainable Rural Livelihoods and the Universidad de la Republica. I facilitate ISU's vision of putting science to work via outreach and service through a wide of range of activities on and off campus.

Honors and Recognition

The Milleman Family Mentorship Award, CALS Student Council	2022
Faculty Escort at Commencement to CALS Student Marshal Payten Watson	2022
Morrill Professor	2020
College of Agriculture & Life Sciences Team Award (Uganda program)	2020
Senior Faculty Marshal, Commencement	2017
College of Agriculture & Life Sciences Team Award (Master Gardener program)	2016
Seven Seals Award for outstanding employer, US DOD ESGR	2016
North Central Regional Assoc. State Ag. Exp. Sta. Directors Team Award (NCERA-3)	2016
Patriotic Employer, Office of the Secretary of the Department of Defense	2015
Dean's Citation for Extraordinary Contributions, College of Agriculture & Life Sciences	2013
Faculty Escort at Commencement to CALS Student Marshal Rachel Owens	2013
Women in Agronomy Mentoring Award, ASA-CSSA-SSSA	2012
USDA Excellence in University Teaching Award for the Midwest Region	2011
Louis M. Thompson Advising Academy, College of Agriculture & Life Sciences	2011
Distinguished Undergraduate Teacher Award, Iowa State University	2010
Soil Science Resident Education Award, Soil Science Society of America	2009
Faculty Escort at Commencement to CALS Student Marshal Emily Eggleston	2009
Agronomy Resident Education Award, American Society of Agronomy	2008
University Advising Award, Iowa State University	2007
Pioneer Hi-Bred Professor of Agronomy	2004-07
Faculty Escort at Commencement to first-ever CALS Student Marshall Sean Johnson	2006
Fellow, Iowa Academy of Science	2005
Miller Faculty Fellow, ISU Center for Excellence in Learning & Teaching (CELT)	2004-05
Outstanding Adviser in the College of Agriculture	2004
VEISHEA Faculty of the Year in the College of Agriculture	2003
Life in Iowa Award for Leadership & Service	2003
Baker Agronomic Award	2001
Outstanding Reviewer, Soil Science Society of America	2001
Early Achievement in Teaching, ISU College of Agriculture	1999
Outstanding Reviewer, J. Nat'l Resources & Life Sci. Educ. (JNRLSE)	1998
Miller Faculty Fellow, ISU Center for Teaching Excellence	1998
Outstanding Club Adviser in Agriculture, ISU College of Agriculture	1998
Soil & Water Conservation Society Award of Merit	1995
Outstanding Reviewer, JNRLSE	1994
Number 1 Faculty Rating, University of Southwestern Louisiana	1993
Summer Research Award, University of Southwestern Louisiana	1991-92
Outstanding Teaching Associate, OSU Agronomy Department	1990
Holowaychuk Pedology Award, Ohio State University	1989
Merit and Excellence Recipient, Ohio State University	1988
Riecken Pedology Award, Iowa State University	1983

SCHOLARSHIP

Dissertation & Thesis

Burras, Charles Lee. 1992. Origin of smectite in western Ohio. PhD Dissertation – Agronomy (Soil Science), Department of Agronomy, The Ohio State University. 334 pages. Available at: https://etd.ohiolink.edu/acprod/odb_etd/etd/r/1501/10?clear=10&p10_accession_num=osu1487777901658994 (reviewed December 20=7, 2023).

Major Professor & Committee: Neil E. Smeck, Jerry M. Bigham, George F. Hall, Samuel J. Traina, Rodney T. Tettenhorst, Gunter Faure.

Burras, Charles Lee. 1984. Characterization of soils associated with minor moraines, Story County, Iowa. MS Thesis – Soil Morphology & Genesis, Department of Agronomy, Iowa State University. 169 pages. Available at: Parks Library, Special Collections.

Major Professor & Committee: Wayne H. Scholtes, Thomas E. Fenton, Richard L. Handy, George R. Hallberg.

Refereed articles and proceedings

1. Sciarresi, C. A. Thies, C. Topp, D. Eudy, S. Trifunovic, A. Ruiz, P.M. Dixon, F. Miguez, C.L. Burras and S.V. Archontoulis. 2024. Do newer maize hybrids grow roots faster and deeper? 2024. Crop Sci. 1-18. DOI: 10.1002/csc2.21208
2. Poffenbarger, H., S. Archontoulis, C.L. Burras, G. Danalatos, P. Dixon, A. Russell, J. Six, E. Takle, J. Veenstra and M. Castellano. 2022. A large subsoil carbon sink in the United States Corn Belt. Earth and Space /science Open Archive (ESSOAr) 37. <https://doi.org/10.1002/essoar.10512187.2>
3. Streeter, M.T., J. Vogelgesang, K.E. Schilling and C.L. Burras. 2022. Use of high-resolution ground conductivity measurements for denitrifying conservation practice placement. Environmental Monitoring Assessment 194:784. <https://doi.org/10.1007/s10661-022-10441-w>
4. Ordonez, R.A., M.J. Castellano, G.N. Danalatos, E.E. Wright, J.L. Hatfield, C.L. Burras and Sotirios Archontoulis. 2021. Insufficient and excessive N fertilizer input reduces maize root mass across soil types. Field Crops Research 267. <https://doi.org/10.1016/j.fcr.2021.108142>
5. Streeter, M.T., K.E. Schilling, C.L. Burras and C.F. Wolter. 2021. Erosion and sediment delivery in southern Iowa watersheds: Implications for conservation planning. J. Soil Water Conserv. 76:103-115. <https://doi.org/10.2489/jswc.2021.00125>
6. Kyebogola, S., L. Burras, B. Miller, O. Semalulu, R. Yost, M. Tenywa, A. Lenssen, P. Kyomuhendo, C. Smith, M. Majaliwa, L. Goettsch, C. Colfer and R. Mazur. 2020. Comparing Uganda's indigenous soil classification system with World Reference Base and USDA Soil Taxonomy to predict soil productivity. Geoderma Regional e00296, 10 p. <https://doi.org/10.1016/j.geodrs.2020.e00296>
7. Mtama, J.G., C.L. Burras and B.M. Msanya. 2020. Equation chapter 1 section 1 corn suitability rating for Southern Highland Zone of Tanzania – a feasibility assessment at the TARI-Uyole, Mbeya, Tanzania. Am. J. Agric. For. 8:64-68. Doi: 10.11648/j.ajaf.20200803.12
8. Burras, C.L., Yu. G. Chendev and T.J. Sauer. 2019. Ch. 1, Plenary Reports: Chemical properties in USA loess-derived Chernozems, 1950-2010: Ramifications for the forest-steppe of Russia. In: Marina A. Poland (Editor). Proc. VIII Intl. Scientific Conf. Env. Problems & Env. Situation in European Russia, Belgorod State University, October 22-25, 2019. p. 10-14.

9. Chen, S., C.L. Burras, E. Lili and X. Zhang. 2019. Soil aggregate response to three freeze-thaw methods in a northeastern China Mollisol. *Polish J. Env. Studies* 28(5): 1-11. DOI: 10.15244/pjoes/99205.
10. Chen, S., C.L. Burras, E. Lili and X. Zhang. 2019. Interrelationship among slope steepness, tillage practice and rainfall properties with surface runoff and soil loss on Mollisols in Northeast China, *Arch. Agron. and Soil Sci.* 66 DOI: [10.1080/03650340.2019.1579310](https://doi.org/10.1080/03650340.2019.1579310)
11. Mtama, J.G., C.L. Burras and B.M. Msanya. 2018. Pedotransfer functions for cation exchange capacity, available water holding capacity and soil organic carbon for representative soils of Southern Highland Zone of Tanzania. *Intl. J. Ag. Biol. Sci.* 10:26-42. (Available at: <http://www.ijoabs.com/publications-of-ijoabs/2018-10/>).
12. Mtama, J.G., B.M. Msanya and C.L. Burras. 2018. Pedology of four representative sites of Southern Highland Zone of Tanzania. *Am. J. Agric. & For.* 6:111-121. (Available at <http://article.sciencepublishinggroup.com/pdf/10.11648/j.ajaf.20180605.11.pdf> , DOI: 10.11648/j.ajaf.20180605.11)
13. Elhakeem, M., A.N.T. Papanicolaou, C.G. Wilson, Y-J. Chang, C.L. Burras, B. Abban, D.A. Wysocki and S. Wills. 2018. Understanding saturated hydraulic conductivity under seasonal changes in climate and land use. *Geoderma* 315:75-87.
14. Chendev, Y.G., J.A. Hubbart, E.A. Terekhin, A.R. Lupo, T.J. Sauer and C.L. Burras. 2016. Recent afforestation in the Iowa River and Vorskla River Basins: A comparative Trends Analysis. *Forests* 7:278 doi:[10.3390/f7110278](https://doi.org/10.3390/f7110278) 21 p. (available at <http://www.mdpi.com/1999-4907/7/11/278/htm> , reviewed November 20, 2016).
15. Ibrahim, M.A., A.M. Merwald, E.A. Elanka, C.L. Burras and L. Follett. 2016. Application of silicon ameliorated salinity stress and improved wheat yield. *J. Soil Sci. Env. Manag.* 7:81-91. (available at <http://www.academicjournals.org/journal/JSSEM/article-full-text-pdf/E54068059353> , reviewed July 08, 2016).
16. Abdelkader, M.A., M.A. Ibrahim and C.L. Burras. 2016. Effect of silicon application on roselle (*Hibiscus sabdariffa*, L.) grown in a Vertisol in Egypt. *J. Soil Sci. Env. Man.* 7:45-52. DOI 10.5897/JSSEM15.0552. (available at http://www.academicjournals.org/journal/JSSEM/edition/April_2016 , reviewed April 13, 2016).
17. Van Meter, K.J., N.B. Basu, J.J. Veenstra and C.L. Burras. 2016. The nitrogen legacy: Emerging evidence of nitrogen accumulation in anthropogenic landscapes. *Env. Res. Letters* 11: 1-12. DOI:10.1088/1748-9326/11/3/035014. (available at <http://iopscience.iop.org/article/10.1088/1748-9326/11/3/035014> , reviewed March 21, 2016).
18. Veenstra, J.J. and C.L. Burras. 2015. Soil profile transformation after 50 years of agricultural land use. *Soil Sci. Soc. Am. J.* 79:1154-1162. Available at: <https://dl.sciencesocieties.org/publications/sssaj/abstracts/79/4/1154doi:10.2136/sssaj2015.01.0027> . Reviewed September 13, 2015.
19. Ibrahim, M., E.A. Elnaka, C.L. Burras. 2015. Clay upward movement in sand columns under partially saturated conditions. *Soil Sci. Soc. Am. J.* 79:896-902. Available at: <http://dx.doi.org/10.2136/sssaj2015.01.0005> . Doi:10.2136/sssaj2015.01.0005. Reviewed April 28, 2015.
20. Chendev, Y.G., T.J. Sauer, G. Hernandez Ramirez and C.L. Burras. 2015. History of East European Chernozem soil degradation: Protection and restoration by tree windbreaks in the Russian steppe. *Sustainability* 7:705-724. doi:10.3390/su7010705.

21. Chendev, Y.G., T.J. Sauer, A.N. Gennadiev, L.L. Novykh, A.N. Petin, V.I. Petina, E.A. Zazdravnykh and C. L. Burras. 2015. Accumulation of organic carbon in Chernozems (Mollisols) under shelterbelts in Russia and the United States. *Eurasian Soil Sci.* 48:43-53.
22. Papanicolaou, A.N., M. Elhakeem, C.G. Wilson, C.L. Burras, L.T. West, H. Lin, B. Clark and B.E. Oneal. 2015. Spatial variability of saturated hydraulic conductivity at the hillslope scale: Understanding the role of land management and erosional effect. *Geoderma* 233-234: 56-68. doi:10.1016/j.geoderma.2014.12.010.
23. Miller, B.A. and C.L. Burras. 2015. Comparison of surficial geology maps based on soil survey and in-depth geological survey. *Soil Horizons* 56: doi:10.2136/sh14-05-0005 .
24. Woli, K.P., C.L. Burras, L.J. Abendroth and R.W. Elmore. 2014. Optimizing corn seeding rates using a field's corn suitability rating. *Agron J.* 106:1523-1532.
25. Ibrahim, M. and C.L. Burras. 2013. Distribution and origin of argillic horizons across Iowa – A novel hypothesis. *Soil Sci. Soc. Am. J.* 77:580-590. doi: 10.2136/sssaj2012.0044.
26. Burras, C.L. and R.K. Owen. 2012. CSR2 – Soil productivity rating for cropland in Iowa, USA. *Sci. Herald Natl Univ Life Env Sci. Ukraine Series of Agron.* 176:167-170.
27. Liu, X., C.L. Burras, Y.S. Kravchenko, A. Duran, T. Huffman, H. Morras, G. Studdert, X. Zhang, R.M. Cruse and X. Yuan. 2012. Overview of Mollisols in the world: Distribution, land use and management. *Can. J. Soil Sci.* 92:383-402.
28. Ibrahim, M. and C.L. Burras. 2012. Clay movement in sand columns and its pedological ramifications. *Soil Horizons* doi: 10.2136/sh12-01-0004.
29. Chendev, Y.G., C.L. Burras and T.J. Sauer. 2012. Transformation of forest soils in Iowa (United States) under the impact of long-term agricultural development. *Eurasian Soil Sci.* 45:357-367.
30. Veenstra, J.J. and C.L. Burras 2012. Effects of agriculture on the classification of Black Soils in the Midwestern United States. *Can. J. Soil Sci.* 92:403-411.
31. Henik, Joshua J., Allen D. Knapp, Kenneth J. Moore, and C. Lee Burras. 2012. Normalized difference vegetative index used to identify spatial variability in vegetative growth and grain yield of corn. *Crop Management* doi:10.1094/CM-2012-0824-01-RS.
32. Ibrahim, M., C.L. Burras, J. Steele, M. La Van, M.L. Thompson and M. Sucik. 2011. Munterville: A new soil series in Iowa. *Soil Survey Horizons* 52:103-110.
33. Wilson, H., R. Cruse and L. Burras. 2011. A method to adapt watershed-scale sediment fingerprinting techniques to small-plot runoff experiments. *J. Soil Water Conservation* 66:323-328.
34. Wilson, H.M., R.M. Cruse and C.L. Burras. 2011. Perennial grass management impacts on runoff and sediment export from vegetated channels in pulse flow runoff events. *Biomass & Bioenergy* 35:429-436.
35. Veenstra, J.J., D. Dembe, J. Nsamba, L. Wasko, C.L. Burras, G. Nonnecke, B. Orum, S. Downie, and R. Cox. 2009. Mapping Soils in Central Uganda. *Soil Survey Horizons* 50:30-34.
36. Lemus, R., E.C. Brummer, C.L. Burras, K.J. Moore, M.F. Barker and N.E. Molstad. 2008. Effects of nitrogen fertilization on biomass yield and quality in large fields of established Switchgrass in southern Iowa, USA. *Biomass & Bioenergy* 32:1187-1194.

37. Miller, B.A., C.L. Burras and W.G. Crumpton. 2008. Using soil surveys to map Quaternary parent materials and landforms across the Des Moines Lobe of Iowa and Minnesota. *Soil Survey Horizons* 49:91-95.
38. Papanicolaou, A.N., M. Elhakeem, C. Wilson, C.L. Burras and B. Oneal. 2008. Observations of soils at the hillslope scale in the Clear Creek watershed in Iowa, USA. *Soil Survey Horizons* 49:83-86.
39. Nyasimi, M., L.M. Butler, L. Burras, H. Ilhahiane, R. Schultz and J. Flora. 2007. Differentiating livelihood strategies among the Luo and Kipsigis people in western Kenya. *J. Ecol. Anthropology*. 11:42-55.
40. Wills, S.A., C.L. Burras and J.A. Sandor. 2007. Prediction of soil organic carbon content using field and laboratory measurements of soil color. *Soil Sci. Soc. Am. J.* 71:380-388.
41. Florine, S.E., K.J. Moore, S.L. Fales, T.A. White and C.L. Burras. 2006. Yield and composition of herbaceous biomass harvested from naturalized grassland in southern Iowa. *Biomass & Bioenergy* 30:522-528.
42. Guretzky, J.A., K.J. Moore, E.C. Brummer, and C.L. Burras. 2005. Species diversity and functional composition of pastures that vary in landscape position and grazing management. *Crop Sci.* 45: 282-289.
43. Tarr, A.B., K.J. Moore, C.L. Burras, D.G. Bullock and P.M. Dixon. 2005. Improving map accuracy of soil variables using soil electrical conductivity as a covariate. *Prec. Ag.* 6:255-270.
44. Guretzky, J.A., K.J. Moore, C.L. Burras and E.C. Brummer. 2004. Distribution of legumes along gradients of slope and electrical conductivity in pastures. *Agron. J.* 96:547-555.
45. Konen, M.E., C.L. Burras and J.A. Sandor. 2003. Organic carbon, texture and quantitative color measurement relationships for cultivated soils in north central Iowa. *Soil Sci. Soc. Am. J.* 67:1823-1830.
46. Tarr, A.B., K.J. Moore, P.M. Dixon, C.L. Burras and M.H. Wiedenhoef. 2003. Use of soil electroconductivity in a multistage soil sampling scheme. *Online. Crop Management* doi:10.1094/CM-2003-1029-01-RS (9 journal pages).
47. Iakovoglou, V., J. Thompson, and L. Burras. 2002. Characteristics of trees according to community population level and by land use in the US Midwest. *J. Arboriculture* 28 (2): 57-66.
48. Iakovoglou, V., J. Thompson, L. Burras, and R. Kipper. 2002. Factors related to tree growth across urban-rural gradients in the Midwest, USA. *Urban Ecosystems* 5: 71-85.
49. Konen, M.E., P.M. Jacobs, C.L. Burras, B.J. Talaga, and J.A. Mason. 2002. Equations for predicting organic carbon concentration using LOI for north central U.S. soils. *Soil Sci. Soc. Am. J.* 66:1878-1881.
50. Lemus, R., E.C. Brummer, K.J. Moore, N.E. Molstad, C.L. Burras, and M.F. Barker. 2002. Biomass Yield and Quality of Twenty Switchgrass Populations in Southern Iowa, USA. *Biomass & Bioenergy* 23:433-442.
51. Harmony, K.R., K.J. Moore, E.C. Brummer, C.L. Burras, and J.R. George. 2001. Spatial legume composition and diversity across seeded landscapes. *Crop Sci.* 93:992-1000.
52. Patton, J.J., L. Burras, M.E. Konen, and N.E. Molstad. 2001. An accurate and inexpensive apparatus and method for teaching and measuring stable aggregate content of soils. *JNRLSE* 30:84-88.

53. Pogranichniy, S., L. Burras, T.A. Polito and M. Wiedenhoef. 2001. The impact of a learning community on freshman agronomy students: Lessons from Iowa State University. *JNRLSE* 30:104-110.
54. Burras, L., J.V. Huner, and D.P. Dautreuil, III. 1999. Environmental factors affecting crayfish yields in Louisiana. *Proc. La. Acad. Sci.* 61:1-10.
55. Smeck, N.E., C.L. Burras, J.M. Bigham, and U. Soto. 1997. Pedogenic smectite in soils of western Ohio. *Proc. 11th Intl. Clay Conf., Ottawa.* p. 733-742.
56. Burras, L., N.E. Smeck, and J.M. Bigham. 1996. Origin of smectite in loessial soils of western Ohio. *Soil Sci. Soc. Am. J.* 60:1961-1968.
57. Burras, L., G. Blakewood, T. Richard, and J.V. Huner. 1995. Laboratory observations on the burrowing in different soils by commercially important procambarid crayfish. *Freshwater Crayfish* 10: 427-434.
58. Novak, J.M. and L. Burras. 1994. Influence of summer storms on solution geochemistry in Coastal Plain hydrosequence. *Intl. J. Ecol. Environ. Sci.* 20: 15-30.
59. Burras, C.L. and W.H. Scholtes. 1987. Basin properties and postglacial erosion rates of minor moraines in Iowa. *Soil Sci. Soc. Am. J.* 51:1541-1546.

Published books, proceedings & booklets

1. Anderson, Amber and C. Lee Burras. 2024. National Soil Judging Handbook. Iowa State University, Department of Agronomy. 43 pages. Available at: https://www.regionsoiljudging.org/files/ugd/a83f82_5e1141286c7246a687cc1dec307a367c.pdf , reviewed May 31, 2024.
2. Anderson, Amber and C. Lee Burras. 2024. National Collegiate Soil Judging Contest Score Card. Available at: https://www.regionsoiljudging.org/files/ugd/a83f82_2f868ce9688640c3ba6d14d28d7702e7.pdf , reviewed May 31, 2024.
3. Anderson, Amber and C. Lee Burras (editors). 2022. Region V Soil Judging Handbook, Fall 2022. Iowa State University. (Authors: Anderson, A, L. Burras, N. Jelinski, B. Young, J. Turk, K. Clark, D. Presley, C. Moorberg, K. Osterloh and A. Deere.) Available at <https://dr.lib.iastate.edu/entities/publication/dec747b8-51dc-414a-894f-6c16ac81a1c5> , reviewed September 09, 2023.
4. Anderson, A., C. Lee Burras, R. Pope and G.A. Miller. 2021. Soil Judging in Iowa. Iowa State University Extension and Outreach CROP 3168A. 28 p. (Available at <https://store.extension.iastate.edu/product/4435> , reviewed January 10, 2022)
5. Burras, CL. and R. Bednarek (editors). 2015. Proceedings of the North Central Regional Soil Survey Conference. North Central Regional Soil Survey Conference. 145 p. (Available at: <http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/?cid=stelprdb1252141> , reviewed January 08, 2015)
6. Miller, G.A., T.E. Fenton, B.R. Oneal, B.J. Tiffany and C.L. Burras. 2010. Iowa soil properties and interpretations database. ISPAID Version 7.3. Iowa State University – IAHEES. 30 p.
7. Burras, L. 2002. Study Guide for CSSE Professional Practice Examinations. *Soil Sci. Soc. Am.*, 36 pages, (3rd ed.).
8. Burras, L. 1998. Study Guide for CSSE Professional Practice Examinations. *Soil Sci. Soc. Am.*, 37 pages, (2nd ed.).
9. Burras, L. 1997. Study Guide for CSSE Professional Practice Examination. *Soil Sci. Soc. Am.*, 23 p.

10. Burras, L. and A. Engebretson. 1997. (Ed.) Soil Science Competency Areas and Performance Objectives. Soil Sci. Soc. Am., 12 p.

Published book chapters, non-refereed proceeding chapters & position papers

1. Burras, C. L. 2024. Mineralogy. In Amber Anderson (Ed.) Introduction to Soil Science. Iowa State University Pressbooks Open Access Resource. Available at <https://iastate.pressbooks.pub/introsoilscience/> (reviewed December 27, 2023).
2. Sandor, J., C.L. Burras, M. Thompson and S.A. Wills. 2022. Factors of soil formation – Human impacts. D. Hillel (Ed.) Encyclopedia of Soils in the Environment. Elsevier, Ltd., Oxford, UK. <https://doi.org/10.1016/B978-0-12-822974-3.00029-X> (reviewed January 03, 2023).
3. Burras, C.L. 2022. Section D-3: Order, Suborder, Great Group and Subgroup including decision outline for assigning the soil moisture regime designator for a profile. In: A. Anderson and C.L. Burras (Editors). Region V Soil Judging Handbook, Fall 2022. Iowa State University, p. 29-30. (Available at <https://www.regionvsoiljudging.org/> , reviewed December 30, 2022).
4. Burras, C.L. 2022. Section E-4: CSR2. In: A. Anderson and C.L. Burras (Editors). Region V Soil Judging Handbook, Fall 2022. Iowa State University, p. 35-38. (Available at <https://www.regionvsoiljudging.org/> , reviewed December 30, 2022).
5. Anderson, A. and L. Burras. 2021. The science, beauty and future of Iowa's soils. In: A. Gennett (Editor). Compelling Ground – Landscapes, Environments and Peoples of Iowa. University Museums, Iowa State University. p. 47-53.
6. Burras, C.L. February 25, 2020. Soils. In: Soil Fertility & Nutrient Management Short Course Binder, ISU Extension. Pages 1-15.
7. Burras, C. L. 2018. Ch. 30. Corn Suitability Rating 2 (CSR2) – A refresher about Iowa's soil productivity rating. In: B.A. Pringnitz (Prog. Coordinator). Proc. 30th Ann. Integrated Crop Man. Conf., Iowa State University. p. 109-114. (Available at: ISU Extension publications).
8. Richter, J.L. and C.L. Burras. 2017. Ch. 11. Human-impacted catenas in north-central Iowa, United States: Ramifications for soil mapping. In: P. Pereira, E.C. Brevik, M. Munoz-Rojas and B.A. Miller (Editors). Soil Mapping and Process Modeling for Sustainable Land Use Management, Elsevier, Amsterdam. p.335-363. DOI: <http://dx.doi.org/10.1016/B978-0-12-805200-6.00011-6> .
9. Burras, C.L. 2017. Ch. 13. Soils and soil fertility. In: D. Schrock and S. DeBlieck (Editors). Workbook for Iowa Master Gardeners (MG-5). Iowa State University Extension p. 147-157.
10. Burras, C.L. 2016. Ch. 13. Soils and soil fertility. In: C.L. Haynes and D. Schrock (Editors). Resource Guide for Iowa Master Gardeners. Iowa State University Extension. p. 175-191.
11. Burras, C.L., J. Richter, C. DeLong, E. Dahlhauser, Z. Wang, M.L. Tiedeman, J. Mtama and A. Sassman. 2015. Iowa – an introduction by some pedologists. In: Burras, CL. and R. Bednarek (editors). Proc. NC Regional Soil Survey Conference. p. 15-18.
12. Burras, C.L. 2015. Iowa State University – soils, land use and historical impacts. In: Burras, CL. and R. Bednarek (editors). Proc. NC Regional Soil Survey Conference. p. 31-32.
13. Tiedeman, M.L. and C.L. Burras. 2015. Pedogenesis of ant colonized soils at Doolittle Prairie State Preserve, Iowa. In: Burras, CL. and R. Bednarek (editors). Proc. NC Regional Soil Survey Conference. p.34-56.

14. Chendev, Y.G., L.L. Novykh, T.J. Sauer, A.N. Petin, E.A. Zazdravnykr, C.L. Burras. 2014. Ch. 47. Evolution of soil carbon storage and morphometric properties of afforested soils in the US Great Plains. In: A.E. Hartemink and K. McSweeney (Editors). *Soil Carbon*. Springer Link. P. 475-482.
15. Burras, C.L., C.L. Haynes and D. Schrock. 2014. Ch. 13. Soils and soil fertility. In: C.L. Haynes and D. Schrock (Editors). Resource Guide for Iowa Master Gardeners. Iowa State University Extension and Outreach. p. 173-189.
16. Burras, C.L., C.L. Haynes and D. Schrock. 2014. Ch. 13. Soils and soil fertility. In: C.L. Haynes and D. Schrock (Editors). Workbook for Iowa Master Gardeners. Iowa State University Extension and Outreach. p. 155-166.
17. Burras, C.L., M. Nyasimi and L. Michael Butler. 2013. Ch. 10. Soils, human wealth and health – a complicated relationship. In: E.C. Brevik & L.C. Burgess (Editors). *Soils and Human Health*. CRC Press/Taylor & Francis. p. 215-226.
18. Burras, C.L. and R.K. Owen. 2012. CSR2- A practical application of modern pedology in Iowa, USA. Proc. of the International Scientific-Practical Conference of Soil Science – Modern Issues & Teaching Methodologies. National University of Life & Environmental Sciences of Ukraine, Kiev. P. 292-296.
19. Burras, C.L., J.J. Veenstra, M. Ibrahim, R.M. Cruse, and T.E. Fenton. 2010. Black soils of the USA – a brief introduction. In: X. Liu, C. Song, R.M. Cruse & T. Huffman (eds.) *New Advances in Research and Management of World Mollisols*. Proc. Intl. Symp. Soil Quality & Management of World Mollisols. Northeast Forestry University Press, Harbin, China. p. 46-50; map 4.
20. Sauer, T.J., C.L. Burras and Y.G. Chendev. 2009. Dynamics of forest areas within a basin of the Iowa River, USA, from 1972 to 2008. Y. Chendev (Ed.) *Proc. Climate Change, Soils & Environment.*, Belgorod State University, Belgorod, Russia. p. 162-169
21. Chendev, Y. G., C. L. Burras, and T. J. Sauer. 2009. Agrotechnogenic changes of gray forest soils within different climatic conditions of forest-steppe. 5th Russian National Conference on the Evolution of Soil Cover: History of Ideas, Methods, Holocene Evolution, and Forecasts, Nov. 4-10, Pushino, Russia. (*In Russian*).
22. McMichael, J., C.L. Burras and S.A. Wills. 2007. Understanding pasture quality, soil quality and soil carbon content relationships in south central Iowa. R. Drake (Ed.). *Proc. 3rd Nat'l. Conf. Grazing Lands*. USDA-NRCS Grazing Lands Initiative, Davis, OK. p. 194-196.
23. Smeck, N.E. and C.L. Burras. 2006. Soils in time and space. R. Lal (Ed.) *Encyclopedia of Soil Science*. 2nd. Ed. p. 1648-1652.
24. Sandor, J., C.L. Burras and M. Thompson. 2005. Factors of soil formation – Human impacts. D. Hillel (Ed.) *Encyclopedia of Soils in the Environment*. Elsevier, Ltd., Oxford, UK. p. 520-532
25. Burras, L., R. Borges, Dan Dobill, T. Fenton and B. Larabee. 2004. Lesson 1: Soil development & classification. Web-lesson in Agron 502, Chemistry, Physics & Biology of Soils. 19 “pages.” On CD.
26. Smeck, N.E. and C.L. Burras. 2002. Soils in time and space. R. Lal (Ed.) *Encyclopedia of Soil Science*. p. 1336-1341.
27. Burras, C.L., J.M. Kimble, R. Lal, M.J. Mausbach, G. Uehara, H.H. Cheng, D.E. Kissel, R.J. Luxmoore, C.W. Rice, and L.P. Wilding. 2001. Carbon sequestration: Position of the Soil Science Society of America.
28. Burras, L. 1998. Lesson 1: What is a soil? Web-based chapter 1 for Agron 502, 22 p.

29. Brummer, E.C., L. Burras, M. Duffy, K.J. Moore, M. Downing, and S. McLaughlin. 1997. Integration of technical aspects of switchgrass production in Iowa. Overend, R.P. and E. Chornet (Eds.). Making a Business from Biomass, Proc. 3rd Biomass Conf. Americas 2:1445-1454.
30. Burras, L. 1997. Understanding Soils and Landscapes in Grazing Management. USDA-NRCS Technical Training Course, NEDC Pastureland Ecology, Raleigh, NC, May 13, 7 p.

Research and Extension reports

1. Burras, C. L. 2022. CSR2: A refresher on how it works...and maybe where it doesn't. In: B.A. Pringnitz. (Program Director). Proc. 32nd Integrated Crop Management Conference – Soil & Water Management Section, Iowa State University. p. 99-106. (*Available at: ISU Extension publications*).
2. Anderson, A., M. McDaniel and C.L. Burras. 2021. Soils. Iowa's Nature Series. 11 p. Natural Resource Stewardship, Iowa State University Extension and Outreach. Available at: <https://naturalresources.extension.iastate.edu/lowas-Nature> , reviewed April 01, 2021.
3. Mazur, R., M. Tenwya, R. Miuro, O. Semalulu, R. Maria, S. Mocumbe, E. Abbott, E. Luvaga, B. Miller, L. Burras, R. Yost, J. Bello-Bravo, and B. Pittendrigh. 2017. Farmer decision making strategies for improved soil fertility management in maize-bean production systems. Feed the future Innovation Laboratory for Collaborative Research on Grain Legumes. FY2017 Annual Project Technical Progress Report. 32 p.
4. Burras, C.L., G.A. Miller, T.E. Fenton and A.M. Sassman. 2015. Corn Suitability Rating 2 (CSR2) equation and component values. Soil Survey & Digital Soil Data - Soil and Land Use, Iowa State University Extension and Outreach.
5. Burras, C.L. 2013. CSR2 Equation with values for each term. Working Paper for USDA-NRCS and associated users. 4 p.
6. Burras, C.L. and A.N. Papanicolaou. 2013. Impacts to the land-water-human system of rural Iowa from high intensity continuous maize production. Final Report, Leopold Center for Sustainable Agriculture EOSP2008-01. 16 p.
7. Papanicolaou, A.N., C. L. Burras, C. Wilson and M. Elhakeem. 2012. Prediction of K_{sat} dynamics from remote sensing data and modeling for the State of Iowa. Final Report, USDA-NRCS Nat'l. Soil Survey Center (USDA contract number 68-7482-10-507). 38 p.
8. Wasko, Lisa Marie; Nonnecke, Gail R.; and Burras, Lee. 2009. Alternative Weed Management Strategies: Effects on Weed Control and Grapevine Yield in an Established Vineyard. Iowa State Research Farm Progress Reports. Paper 326. http://lib.dr.iastate.edu/farms_reports/326
9. Papanicolaou, A.N., C. L. Burras, M. Elhakeem and C. Wilson. 2009. Hydropedological investigations on a benchmark catena: Performance of semi-automated measurements of K_{sat} via different sensors under different hydrologic and land management conditions. Technical Report, USDA-NRCS Nat'l. Soil Survey Center (USDA contract number 68-3H75-3-122). 59 p.
10. Papanicolaou, A.N., C. L. Burras, M. Elhakeem and C. Wilson. 2008. Field and laboratory investigations of infiltration on different geomorphic surfaces in a watershed under different land uses. Final Report, USDA-NRCS Nat'l. Soil Survey Center (USDA contract number 68-3H75-3-122). 69 p.
11. Brummer, E.C. and C.L. Burras. 2007. Switchgrass production in Iowa: Soil suitability and varietal performance. Final Report, Bioenergy Feedstock Development Program Oak Ridge National Laboratory (DE-FC36-96GO10148). 23 p.

12. Burras, C.L., J.M. McLaughlin, S.A. Wills, M. Barker and E.C. Brummer. 2005. Soil carbon and quality in Seymour and Clarinda soil map units, Chariton Valley, Iowa. Final Report, Chariton Valley RC&D (ISU Project 400-41-71-4216). 64 p.
13. Burras, C.L. and J. McLaughlin. 2002. Soil Organic Carbon in fields of switchgrass and row crops as well as woodlots and pastures across the Chariton Valley, Iowa. Final Report. Chariton Valley RC&D. 29 p.
14. Brummer, E.C., C.L. Burras, M.D. Duffy and K.J. Moore. 2002. Switchgrass production in Iowa: Economic analysis, soil suitability, and varietal performance Final Report. Oak Ridge National Laboratory. 140 p.
15. Brummer, E.C., C.L. Burras, M.D. Duffy and K.J. Moore. 2001. Switchgrass production in Iowa: Economic analysis, soil suitability, and varietal performance Final Report. Oak Ridge National Laboratory. 71 p.
16. Brummer, E.C., C.L. Burras, M.D. Duffy and K.J. Moore. 2000. Switchgrass production in Iowa: Economic analysis, soil suitability, and varietal performance Final Report. Oak Ridge National Laboratory. 105 p.
17. Brummer, E.C., C.L. Burras, M.D. Duffy, K.J. Moore, R. Lemus, N. Molstad, V. Nanhou, and W. Weaver. 1999. Switchgrass production in Iowa: Economic analysis, soil suitability, and varietal performance, 1998 Annual Report. ISU Agronomy Department, 11 p.
18. Burras, L. 1998. Soil carbon sequestration potential in the Chariton River Watershed, Iowa. Chariton Valley RC&D publication, Centerville, IA, 10 p.

Refereed abstracts having conference presentations

1. Timbas, N. and C. L. Burras. 2022. Influence of long-term application of fertilizers on selected soil properties of a Mollisol in Iowa. Paper Number 46, World Congress of Soil Science, Glasgow, Scotland.
2. Burras, C.L. and N. Timbas. 2022. Effect of two liming regimes on soil profile characteristics of a Mollisol in Iowa. Paper Number 47, World Congress of Soil Science, Glasgow, Scotland.
3. Burras, C.L., X. Xia and E. Wang. 2021. Soil degradation in low relief high clay Mollisols from Iowa. In: Li Y., M. Liu, T. Li, X. Peng and X Xu. (eds.) LASOSU2021: International Forum on Land Degradation, Soil Conservation & Sustainable Development, Dalian, China. p. 66. Available at http://lasosu2021.dlut.edu.cn/meeting/list_en.asp?id=2710&mnid=3993&did=0, reviewed January 10, 2022.
4. Burras, C. L., J.M. McMichael, J.J. Veenstra, E.C. Brummer, S.A. Wills, N.E. Molstad and R.W. Lemus. 2010. Mollisol variability and resilience across highly eroded rolling landscapes of south central Iowa. In: X. Liu, C. Song, R.M. Cruse & T. Huffman (eds.) New Advances in Research and Management of World Mollisols. Proc. Intl. Symp. Soil Quality & Management of World Mollisols. Northeast Forestry University Press, Harbin, China. p. 83-84.
5. Veenstra, J.J. and C.L. Burras. 2010. Effects of agriculture on the classification of black soils in the Midwestern United States. In: X. Liu, C. Song, R.M. Cruse & T. Huffman (eds.) New Advances in Research and Management of World Mollisols. Proc. Intl. Symp. Soil Quality & Management of World Mollisols. Northeast Forestry University Press, Harbin, China. p. 60.
6. Nonnecke, G., L. Burras, B. Obaa, K. Saunders, and D. Acker. 2007. Service learning through a school garden program in Uganda. Hortscience 42:945.

7. McMichael, J.M., C.L. Burras and S.A. Wills. 2006. Understanding pasture quality, soil quality, and soil organic carbon content relationships in south central Iowa. Proc. 3rd National Conference on Grazing Lands, St. Louis (on CD).
8. Wasko, L.M., G.R. Nonnecke and C.L. Burras. 2009. Alternative weed management practices for established vineyards in Iowa. *Am. J. Enology & Viticulture* 60:550.
9. Nyasimi-Ruigu, M. L.M. Butler and L. Burras. 2005. Land, indigenous knowledge and farmer's livelihoods: the interplay between culture and the Environment in western Kenya. Proc. Soc. Applied Anthropology Ann. Mtg., Santa Fe (on CD).
10. Burras, C.L. E.C. Brummer, R.W. Lemus, J.E. Sellers, Jr., M.L. Braster, J.M. McLaughlin, N.E. Molstad, K.J. Moore and M.F. Barker. 2001. Agronomic and environmental constraints found in on-farm production of switchgrass in the Chariton River Valley, Iowa. 5th Biomass Conf. Americas, 15-114 (2 pages).
11. Burras, C.L, J.M. McLaughlin, M.L. Braster, J.E. Sellers, Jr, S.A. Wills and B.E. Larabee. 2001. Soil color: An inexpensive yet effective method for documenting soil carbon content. Fifth Biomass Conf. Americas 15-222 (2 pages).
12. McLaughlin, J.M. and L. Burras. 2000. Soil carbon across the Chariton River Watershed, Iowa: baseline values and recent changes. Carbon: exploring the benefits to farmers and society speaker and poster abstracts. p. 9. (also at <http://www.iowaswitchgrass.com/technical~agricultural.html>).
13. Brummer, E.C., L. Burras, M. Duffy, K.J. Moore, M. Downing, and S. McLaughlin. 1997. Integration of technical aspects of switchgrass production in Iowa. Abstracts 3rd Biomass Conf., Montreal.
14. Smeck, N.E., L. Burras, and J.M. Bigham. 1997. Pedogenic smectite in soils of western Ohio. Abstracts for the 11th Intl. Clay Conf., Ottawa, No. 346.
15. Countryman, D.W., B.W. Menzel, R.B. Hall, G.J. Atchison, C.L. Burras, and R. Kanwar. 1997. Transforming higher education in natural resources management in Iowa. *NACTAJ*. 41:18-19.
16. Burras, L. 1996. Soils: a means of teaching dynamic, integrated science. American Association for the Advancement of Science. Annual Meeting and Science Innovation Exposition, p. A-19.
17. Burras, L. and J.V. Huner. 1996. Environmental factors affecting crawfish yields in Louisiana, USA. Abstracts Intl. Assoc. Astacology 11th Symposium, Thunder Bay, Ontario, Canada, p. 44
18. Burras, L., G. Blakewood, T. Richard, and J.V. Huner. 1994. Laboratory observations on the burrowing of commercially important procambarid crayfishes in different soils. Abstracts Intl. Assoc. Astacology 10th Symposium, Adelaide, Australia, p. 41.
19. Novak, J.M. and L. Burras. 1992. Spatial and temporal variability of solution geochemistry in a riverine wetland soil. Soc. International Ecology IV International Wetland Conference Abstracts, Columbus, Ohio, p. 114

Non-refereed articles, reports and conference abstracts

1. Danalatos, G.J.N. M.J. Castellano, E.E. Wright, C.L. Burras, and S. V. Archontoulis. 2022. Soil organic matter across US Corn Belt Production Fields. ASA-CSSA-SSSA International Annual Meeting, Baltimore, MD. <https://scisoc.confex.com/scisoc/2022am/meetingapp.cgi/Paper/145350> , reviewed January 03, 2023.
2. Mtama, J.G., F.C. Mlowe, W.G. Matamwa, F. Akitwine, R.A. Wokibula and C.L. Burras. 2022. Integration of optimal fertilizer programs and lime requirements on enhancing corn (*Zea mays*)

productivity in acidic soils of agricultural landscapes of Mbozi District in Songwe Region Tanzania. Borlaug Student Poster Competition, World Food Prize and Iowa State University, October 17, 2022.

3. Wokibula, R.A., F. Akitwine, J.G. Mtama, M. Mbeiza and C.L. Burras. 2022. Improving cacao production in Kamuli Uganda. Borlaug Student Poster Competition, World Food Prize and Iowa State University, October 17, 2022.
4. F. Akitwine, R.A. Wokibula, M. Mbeiza, J.G. Mtama and C.L. Burras. 2022. Integrating pedology and indigenous soils knowledge in Kamuli District, Uganda. Borlaug Student Poster Competition, World Food Prize and Iowa State University, October 17, 2022.
5. Timbas, N., F. Akitwine, K. Pecinovsky, S. Kwikiiriza, G. Nonnecke, and C.L. Burras. 2022. Profile response to liming in the Kenyon soil. Northeast Iowa Research and Extension Farm Annual report.
6. Kwikiiriza, S., G. Nonnecke, F. Akitwine, C.L. Burras and A. Nair. 2022. Effect of soil mulching and cultivar for improved winter squash production. Iowa State University Horticulture Farm Annual report, p. 7-8.
7. Danalatos, G.J., E.E. Wright, M.J. Castellano, G. Verhagen, T.J. Vyn, C. Mensah, D. Eudy, S. Trifunovic, C.L. Burras and S.V. Archontoulis. 2021. Whole profile soil properties and spring nitrate across the US Corn Belt. ASA, CSSA, SSSA International Annual Meeting. Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/138241> reviewed January 10, 2022.
8. Streeter, M.T., K. Schilling, C.L. Burras and C. Wolter. 2021. Erosion and sediment delivery in Iowa. ASA, CSSA, SSSA International Annual Meeting. Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/133088> reviewed January 10, 2022.
9. Thom, C. and C.L. Burras, L. 2021. How Man-Made Structures Affect Catenas. ASA, CSSA, SSSA International Annual Meeting, Salt Lake City, UT. <https://scisoc.confex.com/scisoc/2021am/meetingapp.cgi/Paper/137445> reviewed January 10, 2022.
10. Timbas, N., A. Mallarino, L. Thompson, F. Akitwine, P. Sanchez and L. Burras. 2020. Divergence in selected Mollisol properties after 40 years of corn-soybean cultivation. North Central Regional Cooperative Soil Survey Conference, Columbia Missouri (August 11, 2020).
11. Burras, C.L., G.A. Miller, T.E. Fenton and A.M. Sassman. October 01, 2019. Corn Suitability Ratings 2 (CSR2) equation and component values. Iowa USDA-NRCS and Iowa State Assessors shared working file. 7 pages.
12. Burras, C.L. July 23, 2019. Summary of Site Visit to Costa Rica between July 03 to 08, 2019. Report to ISU Global Agriculture regarding the Cornelius Travel Award. 6 pages.
13. Burras, C.L. February 19, 2019. Soils. In: Soil Fertility & Nutrient Management Short Course Binder, 2019, ISU Extension. Pages 1-15.
14. Miller, B.A., C.L. Burras, O. Semalulu, and M. Tenywa. 2018 Strengthening an indigenous soil classification system using GIS-based mapping of the Buganda catena, Uganda. Presentation at the European Geosciences Union General Assembly, Vienna, Austria. (see: <https://meetingorganizer.copernicus.org/EGU2018/EGU2018-3748.pdf> , reviewed January 03, 2019)
15. Chen, S., C.L. Burras, and X. Zhang. 2017. Overland flow and erosion from runoff plots on a Mollisol in Northeast China. ASA-CSSA-SSSA Annual Meeting Abstracts 105496. (see: <https://scisoc.confex.com/scisoc/2017am/webprogram/Paper105496.html> , reviewed October 29, 2017).

16. Burras, C.L. September 15, 2017. Soils, Roots and Crop Growth – a few ideas. Pioneer Lecture/Field Shortcourse for 32 Advanced Brazilian Farmers, ISU FEEL. 5 pages. *(This was used in conjunction with the field component of an indoor-outdoor lecture & field activity at FEEL).*
17. Burras, C.L. August 24, 2017. Soils, Roots and Crop Growth – a few ideas. DuPont Pioneer Global Agronomy Forum, Pioneer International Headquarters, Johnston, Iowa. 5 pages. *(This was used in conjunction with the four groups (100 total) of international agronomists at the field discussion of the Pioneer soil pit).*
18. Burras, C.L. August 23, 2017. Four maps of Iowa. DuPont Pioneer Global Agronomy Forum, Pioneer International Headquarters, Johnston, Iowa. 2 pages.
19. Burras, C.L. August 18, 2017. Four maps of Iowa. ISU Agronomy Freshman Learning Community Trips. 2 pages.
20. Burras, C.L. August 15, 2017. Soils, Roots and Crop Growth – a few ideas. Pioneer Lecture/Field Shortcourse for advanced Agronomists and farmers of western Canada. ISU FEEL. 5 pages. *(This was used in conjunction with the field discussion with 30 Canadian agronomists and farmers.)*
21. Tenywa, M., O. Semalulu, F. Kabango, S. Kyebogola, R. Miiro, A. Lenssen, R. Yost, M. Ibrahim, B. Miller and C.L. Burras. 2017. Soil sampling, analysis and fertilizer recommendations for beans on the Buganda Catena, Uganda. USAID ISU Bean Project of Uganda. 2 pages. Available in English and Lugandan as “Okukebera ettaka n’enzozesa y’ebigimusa ku bijanjaalo ku ttaka mu Buganda”. *Primary author is listed last.*
22. Tenywa, M., O. Semalulu, B. Miller, F. Kabango, A. Lenssen, S. Kyebogola, R. Miiro, R. Yost, M. Ibrahim and C.L. Burras. 2017. Soil properties and preliminary management recommendations for bean production on the Buganda Catena, Uganda. USAID ISU Bean Project of Uganda. 4 pages. *Primary author is listed last.*
23. Burras, L. 2017. Silicon as a beneficial nutrient for higher plants. A report to Grain Processing Corporation, Muscatine, IA. March 21, 2017. *N.b., Mostafa Ibrahim is the uncredited senior author of this report.*
24. Ibrahim, M.A., S. Kumar and C.L. Burras. 2016. Soil properties under switchgrass fertilized with nitrogen across a toposequence in northeastern South Dakota. ASA-CSSA-SSSA Annual Meeting Abstracts 17-3. (see: <https://scisoc.confex.com/scisoc/2016am/webprogram/Paper101776.html> , reviewed November 20, 2016).
25. Sassman, A.M. and C.L. Burras. 2016. Comparing soil productivity indices used in the north central region of the United States. ASA-CSSA-SSSA Annual Meeting Abstracts 17-3. (see: <https://scisoc.confex.com/scisoc/2016am/webprogram/Paper99491.html> , reviewed November 20, 2016).
26. Burras, C.L. 2016. Soils and their effective management – a pedologist’s perspective, Part 1: General ideas. Soil Fertility and Nutrient Management Shortcourse Notebook. 4 pages.
27. Burras, C.L. 2016. Soils and their effective management – a pedologist’s perspective, Part 2: Iowa and the soils of Iowa. Soil Fertility and Nutrient Management Shortcourse Notebook. 6 pages.
28. DeLong, C. and L. Burras. 2015. A carbon assessment of Iowa State University Farms soils. Farm Progress Reports, 2015: Article 156. Available at: <http://lib.dr.iastate.edu/farmprogressreports/vol2015/iss1/156> , reviewed June 06, 2016)
29. Dahlhauser, E.M. and C.L. Burras. 2015. Pedogenesis of outwash-derived soils on terraces of the Des Moines River. ASA-CSSA-SSSA Annual Meeting Abstract 147-3. (see: <https://scisoc.confex.com/scisoc/2015am/webprogram/Paper94929.html> , reviewed November 23, 2015).

30. Ibrahim, M.A., A.M. Merwald, E.L. Elnaka and C.L. Burras. 2015. Impacts of silicate application on growth and yield of wheat (*Triticum aestivum*, L.) under salt stress conditions. ASA-CSSA-SSSA Annual Meeting Abstract 59-9 (see: <https://scisoc.confex.com/scisoc/2015am/webprogram/Paper92087.html> , reviewed November 23, 2015).
31. Richter, J.L. and C.L. Burras. 2015. Particle density variability in selected pedons and catenas in Iowa. ASA-CSSA-SSSA Annual Meeting Abstract 68-5. (see: <https://scisoc.confex.com/scisoc/2015am/webprogram/Paper95411.html> , reviewed November 23, 2015).
32. Sassman, A. and C.L. Burras. 2015. A comparison of Iowa's original corn suitability rating to the new corn suitability rating 2. ASA-CSSA-SSSA Annual Meeting Abstract 148-5. (see: <https://scisoc.confex.com/scisoc/2015am/webprogram/Paper93775.html> , reviewed November 23, 2015).
33. Sassman, A. and C.L. Burras. 2015. A comparison of Iowa's original corn suitability rating index to the new corn suitability rating 2 index. Proc. 127th Ann. Mtg. Ia. Acad. Sci. Abstract 68, p. 50. U. Iowa, Iowa City.
34. Dahlhauser, E. and C. Lee Burras. 2015. Pedogenesis of outwash-derived soils on terraces of the Des Moines River. Proc. 127th Ann. Mtg. Ia. Acad. Sci. Abstract 115, p. 63. U. Iowa, Iowa City.
35. Richter, J. and C.L. Burras. 2015. Modern catenas of north-central Iowa: Epipedon thickness and geometric mean particle size distribution. Proc. 127th Ann. Mtg. Ia. Acad. Sci. Abstract 120, p. 65. U. Iowa, Iowa City.
36. Dittmer, H., T. Paulson, R. Cruse and C.L. Burras. 2015. Soil science and conservation continuing education. Proc. 127th Ann. Mtg. Ia. Acad. Sci. Abstract 126, p. 66. U. Iowa, Iowa City.
37. Miller, Gerald and Lee Burras. 2015. Corn Suitability Rating 2 Updated. Integrated Crop Management News, Iowa State University Extension & Outreach. <http://www.extension.iastate.edu/CropNews/2015/0325Miller.htm> (reviewed March 31, 2015).
38. Burras, C.L. 2015. Soils and their effective management – a pedologist's perspective, Part 1: General ideas. Soil Fertility and Nutrient Management Shortcourse Notebook. 4 pages.
39. Burras, C.L. 2015. Soils and their effective management – a pedologist's perspective, Part 2: Iowa and the soils of Iowa. Soil Fertility and Nutrient Management Shortcourse Notebook. 6 pages.
40. Richter, J. and C. L. Burras. 2014. The modern relevance of catenas to pedology in Iowa. ASA, CSSA & SSSA International Annual Meeting, Long Beach, CA. <https://scisoc.confex.com/scisoc/2014am/webprogram/Paper88207.html> (reviewed December 23, 2014).
41. Burras, L. 2014. 2014 North Central Regional Conference. National Cooperative Soil Survey Newsletter Issue 68, August. p. 1-3. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/partnership/?cid=nrcs142p2_054340 (reviewed September 02, 2014).
42. Bednarek, R. and L. Burras. 2014. North Central Regional Soil Survey Conference Book, June 02 to 05. National Cooperative Soil Survey: USDA-NRCS & ISU CALS. 60 pages.
43. Burras, L. R. Bednarek, J. Richter, M. Tiedeman, C. DeLong, E. Dahlhauser, Z. Wang and J. Mtama. 2014. Soil Health, Dynamic Soil Properties & Benchmark Catenas: A Field Examination of Central Iowa in the Early 21st Century. 30 pages.
44. Richter, J. and C.L. Burras. 2014. Are catenas relevant to soil maps and pedology in Iowa in the 21st century? Geophysical Research Abstracts, volume 16, EGU2014-4532,. European Geosciences

Union, General Assembly, Vienna. (See: <http://meetingorganizer.copernicus.org/EGU2014/EGU2014-4532.pdf> , reviewed May 05, 2014).

45. Tiedeman, M.L. and C.L. Burras. 2014. Pedology of Ant-Colonized Soils in Doolittle Prairie State Preserve, Iowa, USA. SSSA Conference on Soils Role in Restoring Ecosystem Services, Paper 84190, Sacramento, CA. (See: <https://www.soils.org/files/am/ecosystems/tiedeman-poster.pdf> , reviewed May 05, 2014).
46. Tiedeman, M.L. and C.L. Burras. 2014. Bioturbation – an underestimated and overlooked driver of soil formation. Getting into Soil & Water 2014. Iowa Water Center & Soil & Water Conservation Club, Iowa State University, p. 42-43.
47. DeLong, C.R. DeLong and C.L. Burras. 2013. Carbon status of the soils of Iowa State University. ASA-CSSA-SSSA Annual Meeting Abstract 391-22.
48. Burras, C.L. 2013. Recommendations from the North Central Regional Soil Survey Conference, June 04-07, 2012. National Cooperative Soil Survey Conference, Annapolis, MD.
49. Tiedeman, M.L. and C.L. Burras. 2013. Pedogenesis of ant colonized soils in Doolittle Prairie State Preserve, Iowa. Soil Systems and Critical Zone Processes Conference, Monte Verita Switzerland.
50. Burras, C.L., Y. Chendev, M. Ibrahim, B. Larabee and T. Sauer. 2013 Human-induced soil change in Iowa: Two contrasting examples.. Getting into Soil & Water 2013. Iowa Water Center & Soil & Water Conservation Club, Iowa State University, p. 18-21.
51. Burras, C.L. March 2012. Unintended impacts on soils from long-term farming in Iowa. Getting into Soil & Water 2012. Iowa Water Center & Soil & Water Conservation Club, Iowa State University, p. 24-25.
52. Burras, C.L. Fall 2011. What every Iowan should know about soils. Iowa Natural Heritage p. 8-10. Also available at <http://www.inhf.org/iowa-soil.cfm> , reviewed November 17, 2011.
53. Veenstra, J.J. and C.L. Burras 2010. Anthropedogenic soil properties after 50 years of agriculture. ASA-CSSA-SSSA Annual Meeting Abstract 115-3.
54. Hempel, J., A. McBratney, B. Minasny, Sun W., L. Burras, J. Thompson and B. Malone. 2010. Digital harmonization of adjacent analogue soil survey areas – 4 Iowa counties. ASA-CSSA-SSSA Annual Meeting Abstract 228-3.
55. Ibrahim, M. and C.L. Burras. 2010. Distribution and origin of argillic horizons across Iowa. ASA-CSSA-SSSA Annual Meeting Abstract 228-4.
56. Burras, C.L., J.M. McMichael, J.J. Veenstra, E.C. Brummer, S.A. Wills, N.E. Molstad and R.W. Lemus. 2010. Mollisol variability and resilience across highly eroded rolling landscapes of south central Iowa. In: X. Liu, C. Song, R.M. Cruse & T. Huffman (eds.) New Advances in Research and Management of World Mollisols. Proc. Intl. Symp. Soil Quality & Management of World Mollisols. Northeast Forestry University Press, Harbin, China. p. 83-84.
57. Burras, C.L., R.M. Cruse, S.A. Wills, J.M. McMichael, and J.J. Veenstra, 2010. Managing Mollisols to enhance infiltration and carbon sequestration across fields susceptible to erosion and sedimentation. In: X. Liu, C. Song, R.M. Cruse & T. Huffman (eds.) New Advances in Research and Management of World Mollisols. Proc. Intl. Symp. Soil Quality & Management of World Mollisols. Northeast Forestry University Press, Harbin, China. p. 114.

58. Burras, C.L. 2009. Soils and their degradation in Iowa – an eclectic overview. Getting into Soil & Water. The Soil & Water Conservation Club & The Iowa Water Center, Iowa State University - University Extension, p. 16.
59. Burras, C.L., Y. Chendev, and T.J. Sauer. 2009. Evolution of an Alfisol into a Mollisol with 150 years of cropping in Iowa. ASA-CSSA-SSSA Annual Meeting Abstracts 54227.
60. Konen, M.E. and C.L. Burras. 2009. Quantification of soil carbon stocks in the field – some anthropogeomorphic issues from the corn belt. ASA-CSSA-SSSA Annual Meetings Abstracts 53735.
61. Oneal, B.A., C.L. Burras, T. Papanicolaou, M. Ibrahim and J.J. Veenstra. 2009. Quaternary stratigraphy and pedology of Clear Creek Watershed, Iowa County, Iowa. ASA-CSSA-SSSA Annual Meetings Abstracts 54718.
62. Veenstra, J.J. and C.L. Burras. 2009. Do “typical” pedons change with 50 years of low intensity land use? ASA-CSSA-SSSA Annual Meetings Abstracts 53254.
63. Burras, C.L., T. Papanicolaou, J.J. Veenstra, B.R. Oneal and M.T. Sucik. 2008. Inventorying dynamic soil properties across Iowa’s catenas and land uses. Agron Abstracts 679-3.
64. Veenstra, J.J. and C.L. Burras. 2008. Soil changes after 60 years of land use in Iowa. Agron Abstracts 680-3.
65. Nyasimi, M., L. Burras, L. Butler and D. Schultz. 2007. Is the soil dead? Integrating cultural and scientific knowledge to understand land degradation processes on the Awach River Basin in western Kenya. Agron. Abstracts 248-3.
66. Burras, L, M. Nyasimi and L. Butler. 2006. Walking in Milne’s footsteps: Revisiting the original catena in western Kenya. Agron. Abstracts 99-3.
67. Nyasimi, M., L. Burras and L. Butler. 2006. Soil degradation and human health in the Lake Victoria region of Kenya. Agron. Abstracts 221-8.
68. Burras, L. and M.E. Konen. 2004. Pedology – what prerequisites are best? Agron. Abstracts 6255.
69. M.E. Konen and C.L. Burras. 2004. Teaching pedology – Expanding the audience. Agron. Abstracts 5142.
70. Wills, S.A., C.L. Burras, J.A. Sandor and J.M. McLaughlin. 2004. Comparison of soil spatial variability in a native prairie and agricultural field. Agron. Abstracts 5355.
71. Barker, M., C.L. Burras, and E.C. Brummer. 2003. Soil quality in the Chariton Valley, Iowa. Agron. Abstracts.
72. Larabee, B.E., C.L. Burras, J.M. McLaughlin and S.A. Wills. 2003. Human impacts on Histosols in north central Iowa. Agron. Abstracts.
73. McLaughlin, J., L. Burras, S. Wills and B. Larabee. 2003. Spatial analysis of SOC content in Seymour and Clarinda map units, Iowa. Agron. Abstracts.
74. Wills, S.A., C.L. Burras, J.A. Sandor and J.M. McLaughlin. 2003. Evaluating GIS and geostatistical techniques to describe soil morphology in a northeast Iowa field. Agron. Abstracts.
75. Konen, M.E., J.L. Wollenweber, and L. Burras. 2002. Land Use Impacts on Soil Physical and Morphological Properties in Northeastern Illinois. Agron. Abstracts.

76. Konen, M.E., J.L. Wollenweber, and L. Burras. 2002. Soil Organic Carbon Concentrations in Adjacent Cultivated, Restored, and Never Cultivated Hapludalfs and Argiudolls in Northeastern Illinois Agron. Abstracts.
77. McLaughlin, J.M., C.L. Burras, and M.E. Braster. 2002. Soil Organic Carbon Content and Soil Color in the Chariton Valley, Iowa. Agron Abstracts.
78. McLaughlin, J.M. and C.L. Burras. 2002. Relationship between soil organic carbon and pasture quality in the Chariton River Valley, Iowa. Ia. Acad. Sci. Annual Meeting Abstracts.
79. Wiedenhoeff, M.E., K.J. Moore, C.L. Burras, and R.J. Killorn. 2002. Using Laptop Computers in the Classroom to Enhance Hands-on Activities. Agron. Abstracts.
80. Carpenter, A.B., K.J. Moore, P.M. Dixon, C.L. Burras, R.P. Ewing, and R.L. Hintz. 2001. Use of soil electroconductivity and spectral imagery in optimizing sampling techniques. Agron. Abstracts C6-320.
81. Guretzky, J.A., K.J. Moore, C.L. Burras, and E.C. Brummer. 2001. Spatial analysis of species diversity in pastures using GIS and GPS technologies. Agron. Abstracts C6.
82. McLaughlin, J., L. Burras, S.A. Wills, and B.E. Larabee. 2001. Soil carbon sequestration across pastures of south-central Iowa. Agron. Abstracts S5-1104.
83. McLoughlin, J.J., J.J. Patton, and L. Burras. 2001. Conventional agriculture – the Amish perspective. Agron. Abstracts S5-1325.
84. Wills, S.A., C.L. Burras, J. M. McLaughlin, and B.E. Larabee. 2001. Post-settlement morphology and genesis in Udolls under woodlots and fields in north-central Iowa. Agron. Abstracts S5-Oct 25.
85. Burras, L. 2000. Review of the SSSA position paper on soil carbon sequestration. Agron. Abstracts, p. 299.
86. Mack, R.L., L. Burras, J.R. Thompson, and V. Iakovlogou. 2000. Bulk density and pH of epipedons under trees in rural, suburban, and urban settings in the Midwest USA. Agron. Abstracts, p. 297.
87. McLaughlin, J.M. and L. Burras. 2000. Soil organic carbon across managed catenas in the Southern Iowa Drift Plain. Agron. Abstracts, p. 297.
88. Mullenix, W.A. and L. Burras. 2000. Yield and soil variability across a Mollisol toposequence from north central Iowa. Agron. Abstracts, p. 297.
89. Konen, M.E., B.J. Talaga, C.L. Burras, P.M. Jacobs, and J.A. Mason. 2000. Organic matter and organic carbon relationships for selected soils in the north central US: LOI versus LECO. Agron Abstracts, p. 302.
90. Burras, L. 2000. Environmental science as a science-based baccalaureate: curriculum development, balance, and implementation. Agron. Abstracts, p. 43.
91. Pogranichniy, S.L., M.H. Wiedenhoeff, L. Burras, and T.A. Polito. 2000. Easing the transition for first-year agronomy students: a learning community approach. Agron. Abstracts, p. 6.
92. Lemus, R.W., N.E. Molstad, E.C. Brummer, L. Burras, K.J. Moore, and R.K. Doorenbos. 1999. Switchgrass management for yield potential and biomass quality in the Chariton Valley, Iowa, USA. Agron. Abstracts, p. 110.

93. Molstad, N.E., R.W. Lemus, C.L. Burras, E.C. Brummer, and K.J. Moore. 1999. Landscapes, soil morphology and switchgrass yield in the Chariton River Watershed, Iowa. *Agron. Abstracts*, p. 266.
94. Patton, J.J. J.J. Pinkston, and L. Burras. 1999. Impacts of long-term Amish and conventional farming practices on soil quality in the north central US. *Agron. Abstracts*, p. 264.
95. Pinkston, J.J., J.J. Patton, L. Burras, and D.A. Laird. 1999. Amish and "English" agriculture in Ohio and Minnesota: impacts on pedochemistry. *Agron. Abstracts*, p. 38.
96. Burras, L., S.L. Pogranichniy, T.A. Polito, and R.B. Pearce. 1999. Enhancing the first-year experience: an agronomy learning community approach. *Agron. Abstracts*, p. 3.
97. Lindsey, M.L. and C.L. Burras. 1999. Using SSSA performance objectives to evaluate undergraduate soil science programs at Louisiana State University and Iowa State University. *Agron. Abstracts*, p. 6
98. Pogranichniy, S.L., M.H. Wiedenhoeft, L. Burras, T.A. Polito. 1999. Reshaping the first-year experience for agronomy students. *Agron. Abstracts*, p. 6.
99. Vepraskas, M.J. and L. Burras. 1999. Using micromorphology to teach soil science concepts. *Agron. Abstracts*, p. 3. (invited authors)
100. Cruse, R.M., D.E. Ressler, D.R. Dobill, F.R. Troeh, C.L. Burras, A. Mallarino, T.E. Loynachan, and T.E. Fenton. 1999. Internet-based soil science graduate courseware – MS in agronomy curriculum. *Agron. Abstracts*, p. 356
101. Patton, J.J., J.J. Pinkston, L. Burras, and M.E. Konen. 1998. Soil morphology in Amish and conventional fields from the central USA. *Agron. Abstracts*, 256.
102. Konen, M.E., J.A. Sandor, C.L. Burras, and J.C. Ritchie. 1998. Human impacts on geomorphic processes and soils on the Des Moines Lobe, Iowa. *Agron. Abstracts*, p. 255.
103. R.W. Lemus, N.E. Molstad, L. Burras, and E.C. Brummer. 1998. Switchgrass management and productivity in the Chariton River Valley, Iowa. *Agron Abstracts*, 276.
104. Burras, L. 1998. Using SSSA performance objectives to evaluate soil science at Iowa State University. *Agron. Abstracts*, p. 3.
105. Burras, L. 1997. Results of the SSSA fundamental examination taken at Iowa State University. *Agron Abstracts*, p. 4.
106. Countryman, D.W., B.W. Menzel, R.B. Hall, G.J. Atchison, C.L. Burras, and R. Kanwar. 1997. Transforming higher education in renewable natural resources management in Iowa. NACTA National Conference, Ames, 6 p.
107. Ricks, D., L. Burras, M.E. Konen, and A.J. Bolender. 1997. Genesis and morphology of Mima mounds and associated soils, Kalsow Prairie, Iowa. *Agron. Abstracts*, p. 255.
108. Burras, L. and M.E. Konen. 1996. Spatiality of soils and sediments in closed basins from Iowa and Ohio. *Agron Abstracts*, p. 263.
109. Burras, L. and L.J. Desselle. 1994. Agronomy becomes environmental & sustainable resources: Who are these students? *Agron. Abstracts*, p. 6.
110. Desselle, L.J. and L. Burras. 1994. Job opportunities for graduates of agronomy-based environmental curricula. *Proc. Louisiana Assoc. Agron.* 35:40-43.

111. Desselle, L.J., L. Burras, and E.G. Blakewood. 1993. Environmental and sustainable resources: an agronomy-based baccalaureate curriculum. *Agron. Abstracts*, p. 2.
112. Burras, L., H.A. DeRamus, E.G. Blakewood, and L.J. Desselle. 1993. Soil erosion and sedimentation in an intensively row-cropped drainage basin from southern Louisiana. *Proc. Louisiana Assoc. Agron.* 33:87-94.
113. Burras, L. 1993. Morphology and mineralogy of carbonate nodules from loessial soils in the Mississippi River Valley. *Agron. Abstracts*, p. 294.
114. Burras, L., J.V. Huner, and E.G. Blakewood. 1993. Impact of crawfish burrowing in soils of southern Louisiana. *Proc. Louisiana Acad. Sci.* 56:28.
115. Blakewood, E.G., L. Burras, and J.V. Huner. 1993. The effect of hydrological parameters on the burrowing ability of the Red Swamp Crawfish. *Proc. Louisiana Acad. Sci.* 56:28.
116. DeRamus, H.A. and L. Burras. 1993. Mixed species grazing by sheep and cattle: forage production and utilization. *Proc. Louisiana Acad. Sci.* 56:28.
117. Barron, A. and L. Burras. 1992. Soil phosphorus and artifact concentration in two soils from Poverty Point Archeological Site, Louisiana. *Agron. Abstracts*, p. 298.
118. Burras, L., N.E. Smeck, and J.M. Bigham. 1991. Layer charge of expanding clays in two Ohio Udalf-Aquoll toposequences. *Agron. Abstracts*, p. 308.
119. Burras, L. and N.E. Smeck. 1989. Origin of smectite in soils of western Ohio. *Agron. Abstracts*, p. 259.
120. Smeck, N.E. and L. Burras. 1989. The relationship between water chemistry and soil mineralogy in an Ohio Udalf-Aquoll toposequence. *Agron. Abstracts*, p. 271.

Invited presentations of significance

1. Burras, C.L. July 21, 2024. Infiltration, available water holding capacity and profile morphology in some degraded and nondegraded Mollisols in Iowa. International Workshop on Mollisol Erosion and Degradation. Hosted by the World Mollisol Association and the Northeast Institute of Geography & Agroecology, Chinese Academy of Sciences, Harbin. *NB, I could travel so I was invited to give a recorded presentation on July 09 for use in the workshop.*
2. Burras, C.L. May 06, 2024. The Soils of Iowa. Practical Farmers of Iowa In-Service Training, Ames, Iowa.
3. Burras, C.L. and A. Anderson. April 21, 2024. The Soils & Geology of Iowa. 2024 National Soil Judging Contest, Iowa State University.
4. Burras, C.L. March 22, 2024. The importance of teaching from a panel of four Morrill Professors. Graduate College Leadership Workshop, Iowa State University.
5. Burras, C.L. November 30, 2023. How did Iowa get such great soils? Southfork Watershed Alliance 25th Anniversary Water Quality & Soil Health Forum.
6. Burras, C.L. August 15, 2023. Effective Teaching from a panel of four Morrill Professors. CELT Teaching Symposium, Iowa State University.
7. Anderson A.D. and C. Lee Burras. June 14, 2023. Pedology and Land Use of the Galva catena and Northwest Iowa. National Laboratory for Agriculture and the Environment Seminar Series, USDA-ARS, Ames Iowa.

8. Burras, C.L. January 18, 2023. How did we get such great land? Iowa Learning Farms – 2023 Conservation Webinar Series. Iowa State University. Available at <https://www.iowalearningfarms.org/resources/webinar-c-lee-burras> , reviewed March 18, 2023.
9. Burras, C.L. October 05, 2022. Soils & geology of Iowa, especially Northwest Iowa. NACTA Regional Fall Contest. Iowa Lakeside Laboratory.
10. Burras, C.L. October 02, 2022. The Soils of Iowa – or – What is pedology in the 21st Century? Region V Intercollegiate Soil Judging Contest. Iowa Lakeside Laboratory.
11. Burras, C.L. April 09, 2022. Soils of Iowa – How should we think about them? SASES North Central Regional Conference, Iowa State University.
12. Burras, C.L. February 14, 2022. Pedology, Soil Productivity and Environmental Risks in Iowa and Uganda. Environmental Science Graduate Seminar, Iowa State University.
13. Burras, C.L. September 08, 2021. Large lectures: Reaching “unmotivated” students. Award-Winning Seminar Series, Center for Excellence in Learning and Teaching (CELT), Iowa State University.
14. Burras, C.L., X. Xia and E. Wang. August 22, 2021. Soil degradation in low relief high clay Mollisols from Iowa. LASOSU2021: International Forum on Land Degradation, Soil Conservation & Sustainable Development, Dalian, China. Presentation Session: SS06.
15. Burras, C.L. April 14, 2021. Agronomic needs, land evaluation & pedology of Kamuli, Uganda. Soil Science Seminar Series (Agron 600B), Iowa State University.
16. Burras, C.L. January 30, 2020. Soil change and productivity in intensely cropped Mollisols and Alfisols. Willie Woltz Seminar Series. Crop and Soil Science Department, North Carolina State University.
17. Burras, C.L. January 29, 2020. Soil change: What is pedology in the 21st Century. Willie Woltz Seminar Series. Crop and Soil Science Department, North Carolina State University.
18. Burras, C.L., Yu. G. Chendev and T.J. Sauer. October 22, 2019. Chemical properties in USA loess-derived Chernozems, 1950-2010: Ramifications for the forest-steppe of Russia. 13th International Scientific Conference on the Problems in Nature & Ecology of European Russia. Belgorod State University, Russia. *(n.b. Yury Chendev gave a condensed version of “my” planned presentation – which was to be the key note presentation because I was unable to obtain a Russian visa even with a BSU official invitation, etc. LB).*
19. Burras, C.L. September 28, 2019. Perspectives of a changing landscape. Arts in Iowa: The First Century. Exhibition Symposium, University Museums, Brunner Art Museum.
20. Burras, C.L. August 15, 2018. Managing soils in the Prairie Provinces – some predictions for 2028. Pioneer Lecture/Field Shortcourse for 15 advanced Agronomists and Farmers. ISU FEEL.
21. Burras, C.L. February 15, 2018. Catenas. Soil Physics Colloquium, Makerere University, Kampala.
22. Burras, C.L. February 08, 2018. Soils 101: Understanding and wisely using soils in organic farming. Accredited Certifiers Association Professional Development Training, San Antonio, TX
23. Burras, C.L. February 08, 2018. Soils 101: “Hands-on” activities about soils in organic farming. Accredited Certifiers Association Professional Development Training, San Antonio, TX

24. Burras, C.L. January 18, 2018. The Soils of Iowa. Practical Farmers of Iowa Annual Conference Short Course, Soils: Cultivating a Deeper Understanding. Keynote presentation. Iowa State Center, Iowa State University.
25. Burras, C.L. September 15, 2017. Soils & their effective management – some predictions for 2025. Pioneer Lecture/Field Shortcourse for 32 advanced Brazilian Farmers. ISU FEEL.
26. Burras, C.L. August 24, 2017. Field indicators and management for soil quality & health. DuPont Pioneer Global Agronomy Forum, Pioneer International Headquarters, Johnston, IA. (*Identical presentation given to four groups (100 total) of international agronomists in and near a pit in a Pioneer field*).
27. Burras, C.L. August 23, 2017. The Soils of Iowa. DuPont Pioneer Global Agronomy Forum, Pioneer International Headquarters, Johnston, IA.
28. Miller, B.A., C.L. Burras, M. Tenywa, O. Semalulu, and S. Kyebogola. August 15, 2017. GIS-based Mapping of the Buganda Soil Catena, Uganda. USAID Feed the Future Innovation Laboratory for Collaborative Research on Grain Legumes, Ouagadougou, Burkina Faso.
29. Burras, C.L. August 15, 2017. Managing soils in the Prairie Provinces – some predictions for 2025. Pioneer Lecture/Field Shortcourse for advanced Agronomists and farmers of western Canada. ISU FEEL.
30. Burras, C.L. July 18, 2017. Iowa – A pedologists perspective. Joint meeting of the National Association of Conservation Districts 2017 Forum & the 71st Annual Iowa Soil and Water Conservation Districts Commissioners Conference, Altoona, Iowa.
31. Burras, C.L. June 18, 2017. Soils of Iowa. Friends Chautauqua 2017. Friends of Lakeside Laboratory, Iowa Lakeside Laboratory.
32. Burras, C.L., M. Tenywa and O. Semalulu. May 30, 2017. Quick techniques for measuring soil pH, available P and available N on Ugandan soils. Masaka Field Day, Kiwanzi, Masaka District, Uganda. (*this was an inaugural field day that included local farmers, private sector agriculturalists, extension workers and dignitaries that included President Museveni's personal representative for Masaka District*).
33. Burras, C.L. December 05, 2016. Soils & some predictions for 2025. World Soil Day, DuPont Pioneer Innovation Center in Carver Hall, Pioneer Hi-Bred World Headquarters, Johnston.
34. Burras, C.L. November 07, 2016. Succeeding internationally (panelist). Career Path Opportunities for Students, Post-Docs and Early Career Members, SSSA-ASA-SASES, Phoenix, AZ.
35. Burras, C.L. September 29, 2016. Soil mapping & interpretations – Iowa's plan for 1 m² relevance by 2025. Soil Science Visitors Seminar Series, University de la Republica Uruguay, Montevideo.
36. Burras, C.L. July 14, 2016. Soil change & productivity in Iowa's intensely cropped Mollisols. North Central Regional Cooperative Soil Survey Conference, Northern Illinois University, Sycamore.
37. Burras, C.L. and J.L. DeJong. March 04, 2016. The Soils of Northwest Iowa – the pedologist's perspective. Global Agriculture Summit, Dort College, Sioux Center, Iowa.
38. Burras, C.L. January 12, 2016. Applying to graduate school – Lee's three rules. Earth University Visitors' Ad Hoc Seminar Series, Guacimo, Limon Province, Costa Rica.

39. Burras, C.L. September 25, 2015. Soil maps, the catena and future soil maps – a pedologist's perspective. Workshop on GIS & Geospatial Skills for the Buganda Catena, Uganda. Makerere University and National Agriculture Research Organization (NARO), Kampala, Uganda.
40. Burras, C.L. September 08, 2015. Soil change & productivity in intensely cropped Mollisols. Symposium of Mollisol Conservation & Utilization. World Mollisol Association, Northeast Institute of Geography & Agroecology and the Chinese Academy of Sciences, Harbin, China.
41. Wang Z. and C.L. Burras. September 08, 2015. Silicon as an amendment in establishing maize seedlings in three soils of Iowa. Symposium of Mollisol Conservation & Utilization. World Mollisol Association, Northeast Institute of Geography & Agroecology and the Chinese Academy of Sciences, Harbin, China.
42. Burras, C.L., G. Nonnecke and M. Mbeiza. June 29, 2015. How do soils and land tenure impact Kamuli school children lives? Iowa State University Uganda Program Discussion Series, Kamuli, Uganda.
43. Burras, C.L. June 23, 2015. Maize production and pedology – The case for corn suitability ratings in Iowa and beyond. Sokoine University Department of Soil Science/USDA-iAGRI Seminar Series, Morogoro, Tanzania.
44. Burras, C.L. April 15, 2105. Soil science as a field discipline – Experiences in Iowa, USA. European Geosciences Union - Symposium on Bringing Soils to the Field, Vienna, Austria.
45. Lamkey, K.R., A. W. Lenssen and C.L. Burras. February 03, 2015. An overview of the Iowa State University Agronomy Department's capabilities and activities in international agriculture. International Center for Tropical Agriculture (CIAT), Cali Columbia.
46. Burras, C.L. November 07, 2014. The Soils of Iowa – What would Darwin think? Honors Salon, Iowa State University, Ames.
47. Burras, C.L. July 15, 2014. Iowa – A pedologist's perspective. IAAS 57th World Congress – Farming for the Future. Iowa State University, Ames.
48. Burras, C.L. September 07, 2012. The Soils of Iowa: How should we think about them? Geography Graduate Group Colloquium, Michigan State University, East Lansing.
49. Burras, C.L. August 08, 2012. The pedology of modern Mollisols in Iowa. International Workshop on Mollisol Conservation, Harbin, China.
50. Owen, R.K. and C.L. Burras. May 29, 2012. CSR2 - A practical application of modern pedology & overview of black soils in Iowa. International Scientific-Practical Conference of Soil Science & Conservation – Modern Issues & Teaching Methodologies. National University of Life & Environmental Sciences of Ukraine, Kiev.
51. Burras, C.L. April 03, 2012. Carbon Farming – A best practice in sustainable agriculture. Florida International University Agroecology Symposium, Miami.
52. Ibrahim, M.A., and C.L. Burras. March 09, 2012. Origin and distribution of argillic horizons across Iowa – a novel hypothesis. The Association of Ohio Pedologists Annual Meeting at The Ohio State University, Columbus, Ohio, USA.
53. Burras, C.L. September 29, 2011. Iowa's soils & their productivity – A pedologist's perspective on corn suitability ratings. Iowa State University Agronomy Seminar Series.

54. Burras, C.L., T. Papanicolaou, J.J. Veenstra, Y. Chendev and M. Sucik. May 24, 2011. Soil variability and human-induced pedological change across Iowa. National Cooperative Soil Survey Conference, Asheville, NC.
55. Papanicolaou, T., C.L. Burras, C. Wilson and M. Elhakeem. February 22, 2011. Predictions of saturated hydraulic conductivity (Ksat) dynamics in a Midwestern agricultural watershed in Iowa. National Soil Survey Center, Lincoln, NE.
56. Veenstra, J.J. and C.L. Burras. July 14, 2010. Effects of agriculture on the classification of black soils in the Midwestern United States. Intl. Symp. Soil Quality & Management of World Mollisols, Harbin, China. Sponsored by the Chinese Academy of Science & the International Cooperation Project of Heilongjiang Province.
57. Burras, C.L., J.J. Veenstra, M. Ibrahim, R.M. Cruse, T.E. Fenton and M.J. Castellano. July 13, 2010. Formation, management and environmental issues of Black Soils across the USA. Intl. Symp. Soil Quality & Management of World Mollisols, Harbin, China. Sponsored by the Chinese Academy of Science & the International Cooperation Project of Heilongjiang Province.
58. Burras, C.L. January 30, 2010. Hydrology of Iowa and its implications to ecosystem restoration. Iowa Prairie Network Region 5 20th Annual Meeting, Ankeny, IA.
59. Burras, C.L. November 23, 2009. Pedology 2009 – Experiences from Iowa. National Soil Survey Center, Lincoln, NE.
60. Burras, C.L. November 02, 2009. Future of Agriculture. Workshop for Students of Agronomy, Soils & Environmental Sciences at the American Society of Agronomy Annual Conference, Pittsburgh.
61. Burras, C.L. June 02, 2009. Lakeside and the physical geography of the Iowa Great Lakes. Iowa Lakeside Laboratory Centennial Lecture Series, Wahpeton, IA.
62. Papanicolaou, T. and C.L. Burras. May 11, 2009. Iowa infiltration and Ksat studies. National Cooperative Soil Survey Conference, Las Cruces, NM.
63. Burras, C.L., T. Papanicolaou, J.J. Veenstra, B.R. Oneal and M.T. Sucik. October 07, 2008. Inventorying dynamic soil properties across Iowa's catenas and land uses. Soil Science Society of America Conference, Houston.
64. Burras, C.L. September 24, 2008. Wheatsfield Cooperative: Does growth facilitate or impede its relevance? Sustainable Agriculture Colloquium, Iowa State University.
65. Papanicolaou, T. and C.L. Burras. September 20, 2007. Linking in-situ measurements of infiltration with pedology in Clear Creek Watershed. National Soil Survey Center, Lincoln, NE.
66. Papanicolaou, T. and C.L. Burras. June 06, 2007. In-situ measurements of infiltration by accounting for the role of management practices. National Cooperative Soil Survey Conference, Madison, WI.
67. Burras, C.L., January 30, 2007. Pedology's role in understanding plant nutrition and water quality. Sub-Committee of the Iowa Legislature Environmental Protection Committee, The Iowa Capitol, Des Moines.
68. McLoughlin, J.J., C.L. Burras and S.A. Wills. December 09, 2006. Soils and pasture quality in south-central Iowa. 3rd Annual Grazing Conference, St. Louis.
69. Burras, C.L. September 07, 2006. Animal and land development near lakes – A pedologist's perspective. Dickinson County-Iowa Great Lakes Planning Group, Spirit Lake.

70. Burras, C.L. July 25, 2006. Land and livelihoods – lessons from Lake Victoria. Faculty Seminar at Lakeside, Iowa Lakeside Laboratory, Wahpeton.
71. Burras, C.L., March 09, 2006. Field scale variability in soil carbon, quality and morphology in Iowa. Forum on Biophysical Research on Terrestrial Carbon Sequestration, University of Minnesota.
72. Burras, C.L. February 08, 2006. Comparing pedological processes of the past 13,000 years with the recent 130 years across Iowa. Iowa State University Soil Science Seminar.
73. Burras, C.L. December 09, 2005. Watersheds & people – a pedologist’s perspective. University of Iowa Hydrologic Research Institute Seminar Series.
74. Burras, C.L. April 15, 2005. Iowa’s pedology – comparing the past 13,000 years to the most recent 130 years. University of California, Riverside Soil & Water Sciences Seminar.
75. Burras, L. June 09, 2004. Soil organic matter and soil survey. USDA-NRCS Soil Survey Institute, Iowa State University.
76. Burras, L. May 20, 2004. Landscapes and soils of the Des Moines Lobe, Iowa. USDA-NRCS Soil Survey Institute, Iowa State University.
77. Olson, H. and L. Burras. May 15, 2004. The value of early and continuing connections. 6th Annual Learning Communities Institute, Iowa State University.
78. Burras, C.L. April 30, 2004. Soil science education – building for success in the 21st century. The Ohio State University Soil Science Seminar Series.
79. Burras, C.L. February 21, 2003. Landscapes, land use and soil carbon in the Chariton River Watershed, Iowa. Northern Illinois University Geography Department Seminar, DeKalb.
80. Burras, L. February 2002. Soils as a base for agriculture. Global Agricultural Science and Policy Conference, Ames.
81. Burras, L., J. McLaughlin, M. Braster, J. Sellers, and C. Brummer. November 2001. Switchgrass production in the Chariton Valley, Iowa -Impacts on soils & landscapes. ORNL BFD P Cooperators Meeting, Memphis.
82. Burras, L., E.C. Brummer, M. Braster, J. Sellers, and M. Barker. November 2001. Switchgrass as a Biofuel in the Chariton Valley, Iowa - Agronomic Considerations. ORNL BFD P Cooperators Meeting, Memphis.
83. Burras, L., J. Sellers, E.C. Brummer, and M. Braster. December 2000. Switchgrass as a biofuel in the Chariton Valley, Iowa: Agronomic considerations. Oak Ridge National Laboratory Bioenergy Feedstock Development Program Workshop, Atlanta.
84. Burras, L. November 2000. Review of the SSSA position paper on soil carbon sequestration. Soil Science Society of America Annual Conference, Minneapolis.
85. Burras, L. November 2000. Environmental science as a science-based baccalaureate: curriculum development, balance, and implementation. Soil Science Society of America Annual Conference, Minneapolis.
86. Burras, L. November 2000. The role of soil science performance objectives and examinations in professional practice. National Society of Consulting Soil Scientists Annual Conference, Minneapolis.

87. McLaughlin, J.M. and L. Burras. August 2000. Soil carbon across the Chariton River Watershed, Iowa: baseline values and recent changes. Carbon: exploring the benefits to farmers and society. Des Moines.
88. Vepraskas, M.J. and L. Burras. November 1999. Using micromorphology to teach soil science concepts. American Society of Agronomy Annual Conference, Salt Lake City.
89. Burras, L. October 1998. Presentation on role of teaching for PhD agronomists to graduate student members of ASA. American Society of Agronomy Annual Conference, Baltimore, MD.
90. Burras, L. April 1998. Opportunities to sequester carbon via agronomic management in the central USA. Workshop on Carbon Sequestration in Managed Terrestrial Ecosystems, Washington, DC.
91. Burras, L. May 1997. Understanding soils and landscapes in grazing management. USDA-NRCS Tech. Training, NEDC Pastureland Ecology, Raleigh, NC.
92. Burras, L. October 1996. Evolution of soil morphology on the Des Moines Lobe. Geological Sciences Seminar, Iowa State University.
93. Burras, L. February 1996. Soils: a means of teaching dynamic, integrated science. AAAS Annual Meeting and Science Innovation Exposition, Baltimore.
94. Burras, L. September 1995. Making the most of Gulf Coast soils. Stockman Grass Farmer Gulf Coast Grazing Conference, Houston Texas.
95. Burras, L. and A. Nation. December 1994. An organic approach to pasture subdivision. Stockman Grass Farmer North American Grazing Conference, Memphis. Keynote Address.
96. Burras, L., L.J. Desselle, and L.L. Goodeaux. April 1992. Curriculum revisions – how did agriculture become renewable resources? College of Agriculture Seminar Series, Southern University, Baton Rouge, LA.

Invited presentations as part of an Extension, Outreach, Student Club or similar activity

1. Rieck-Hinz, A., G. Sorenson and C.L. Burras. November 27, 2023. Soil water and crop yield. CropsTV 2024, Iowa State University.
2. Burras, C.L. September 28, 2023. Lee's suggestions for international careers given as "worldviews." International Association of Students in Agriculture – International Agriculture Club. Iowa State University.
3. Burras, C.L. June 22, 2023. The Soil profile & what it tells us about root potential and available water. Northern Iowa Research Farm Field Day, Kanawha. (3 groups in a rotation)
4. Burras, C.L. May 25, 2023. The world around us – a pedologist's perspective. Master Conservationist Program, Story County Conservation/ISU Extension. (15 attendees, 1-hour pptx, 2 hour field tour to Soper's Mill and Doolittle Prairie, 2 page handout).
5. Burras, C.L. and Billy Beck. May 04, 2023. Module 4: How Woodlands Grow – a little about Soils. Master Woodlands Steward Program – Milton R. Owen Nature Center, Osage, Iowa. (15 attendees, 3-hour field introduction to soils and landscapes).
6. Burras, C. L. April 03, 2023. Iowa soils and understanding CSR2. Agronomy in the Field (online), Iowa State University Extension Program focused on Iowa women employed in agronomy.

7. Burras, C.L., Amber Anderson & Beth Larabee. October 25, 2022. Some approaches to valuing soil & land. (Given as part of A. Anderson and B. Larabee "Understanding soils" three-part lecture series). Osher Lifelong Learning Institute (OLLI) at Iowa State University.
8. Burras, C.L. October 20, 2022. Some approaches to understanding and improving your soil. Garden Club of Ames, Riemann Garden, Iowa State University.
9. Burras, C.L. July 07, 2022. Using Soil Survey in Iowa, a non-GIS approach. CCA Training Session, Southeast Iowa Research & Demonstration Farm, Crawfordsville.
10. Miller, BA. and C.L. Burras. May 23, 2022. Optimizing CSR2 and related soil information for Iowa's County Assessors. Iowa Assessors Planning Committee, Agronomy Hall, Iowa State University.
11. Burras, C.L. May 16, 2022. CSR2 – An Update for the Farm Management Team. Farm Management Team Spring In-Service Workshop, Heady Hall, Iowa State University.
12. Burras, C.L. April 28, 2022. The world around us – a pedologist's perspective (aka, Land, water and conservation – Setting the stage). Master Conservationist Program, Story County Conservation/ISU Extension. (12 conservationists, 1 hour pptx, 2 hour field tour to Soper's Mill and Doolittle Prairie, 2 page handout).
13. Burras, C.L. March 30, 2022. Agronomy & Land Use as part of ISU-UP and CSRL (Given as part of D.A. Acker, C. Youngs, T. Brumm, G. Nonnecke, D. Masinde, T. Martin and J. Six. Osher overall presentation). Lifelong Learning Institute (OLLI) at Iowa State University.
14. Burras, C.L. January 04, 2022. CSR2 – A Refresher on when and where it works best. CROPSTV, Iowa State University Extension & Outreach. (*recorded presentation for online viewing*).
15. Burras, C.L. December 01, 2021. CSR2 – A Refresher on when and where it works best. 31st Integrated Crop Management Conference, Iowa State University Extension & Outreach. (*2 identical presentations*).
16. Burras, C.L. October 11, 2021. Professional story and "advise." International Association of Agriculture Students (IAAS) – ISU chapter meeting.
17. Burras, C.L. September 15, 2021. Understanding the soils of western Iowa – a field examination for farmers and other professionals. Western Iowa Research and Extension Farm, Castana.
18. Burras, C.L. September 14, 2021. Understanding the soils of western Iowa – profiles and properties for High School Students. Western Iowa Research and Extension Farm, Castana.
19. Burras, C.L. April 13, 2021. Lee's predictions for Iowa's land use, agronomic potential and environmental quality. Environmental Science Club Invited Presentation Series.
20. Burras, C.L. September 07, 2019. The world around us – a pedologist's perspective (aka, Land, water, and conservation – Setting the stage). Master Conservationist Program, Story County Conservation/ISU Extension. (15 conservationists, 1-hour pptx, 2 hour field tour to Soper's Mill and Doolittle Prairie, 2 page handout)
21. Burras, C.L. April 11, 2019. Soils – An introduction for gardeners. Iowa Federated Gardens Club, Iowa Arboretum, Luther. (Includes a 20-question examination consistent with USA guidelines).
22. Burras, C.L. March 31, 2019. Predictions for Iowa's near future in soils and agronomy. ISU ACES Learning Community, Maple Hall.

23. Burras, C.L. February 19, 2019. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program.
24. Burras, C.L. November 28, 2018. CSR2 – A refresher about Iowa's soil productivity rating. 30th Integrated Crop Management Conference, Iowa State University Extension & Outreach. (*2 identical presentations*).
25. Burras, C.L. November 27, 2018. Pedology, soil change and the environment of Iowa. Environmental Science Club of Iowa State University, Horticulture Hall.
26. Burras, C.L. September 10, 2018. Soil interpretations in Iowa in light of soil change. Soil & Water Conservation Club, Agronomy Hall.
27. Burras, C.L. March 04, 2018. Predictions for Iowa's near future in soils and agronomy. ISU ACES Learning Community, Maple Hall.
28. Burras, C.L. February 20, 2018. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program.
29. Burras, C.L. January 27, 2018. Building soil with prairie. Iowa Prairie Network Conference, Ames High School.
30. Burras, C.L. November 08, 2017. Iowa State University and the Pedology of Iowa. Upper Iowa University (group from UIU visited ISU to describe the FEEL soil pit and learn about ISU).
31. Burras, C.L. October 10, 2017. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Reiman Gardens, Iowa State University.
32. Burras, C.L. October 05, 2017. Iowa – A pedologists perspective. Madison County Soil & Water Conservation District 75th Anniversary Celebration (*150 attendees including dignitaries from the county, state government (elected and appointed), and federal agencies such as NRCS*).
33. Burras, C.L., M.W. Wiedenhoef and L.L. Timms. July 26, 2017. The agriculture and environment of Iowa. Agriculture tour of the central USA by New Zealand farmers, Iowa State University Dairy Farm.
34. Burras, C.L. February 09, 2017. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program.
35. Burras, C.L. January 22, 2017. Predictions for the Near Future. ACES Residential Learning Community, Iowa State University.
36. Burras, C.L. November 18, 2016. Iowa and the Soils and Monoliths of Iowa. Agronomy Department hosting of Chinese Academy of Science visitors from the Northeast Institute of Geography & Agroecology (4 attendees, 7 p. handout).
37. Burras, C.L. November 14, 2016. Soil Productivity Ratings. Iowa Assessors Agriculture Adjustment Committee. West Des Moines (30 attendees, CSR2 6 p. handout).
38. Burras, C.L. October 11, 2016. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Reiman Gardens, Iowa State University.

39. Burras, C.L. and A.M. Sassman. September 13, 2016. CSR2 and predicted corn yields of Iowa's soils. USDA-NRCS Soil & Agronomy Training Workshop, 178 Federal Building, Des Moines. (15 attendees = Area Conservationists/Area Agronomists; 2 p. handout)
40. Burras, C.L. August 17, 2016. Soils, roots and crop growth. DuPont-Pioneer Western Canada Agronomy Training field program, ISU FEEL (30 attendees, 2 p. handout)
41. Burras, C.L. August 15, 2016. BS in ISU Agronomy, 2017-2018 & beyond: Insuring success in the mid-21st Century. Department of Agronomy Strategic Retreat, ISU Alumni Center.
42. Burras, C.L. July 19, 2016. Soils, roots and crop growth – a few ideas. DuPont-Pioneer New Employee field program, ISU FEEL (120 attendees, 2 p. handout, 3 presentations).
43. Burras, C.L. March 24, 2016. Predictions for the near future. Iowa State University Agronomy Club Guest Speaker Series.
44. Burras, C.L. February 11, 2016. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program.
45. Burras, C.L. February 06, 2016. Soil health and gardening. Learn on Saturday Lecture Series, Greater Des Moines Botanical Garden. (60 attendees, 2 p. handout).
46. Burras, C.L. February 05, 2016. Corn suitability ratings and their impact on farm real estate. Iowa Auctioneers Association Convention, Ankeny.
47. Burras, C.L. August 19, 2015. Soils, roots and crop growth in 2030. Corn & Soybean Training for Western Canada, Field Education & Extension Laboratory, Iowa State University. (Program for DuPont Pioneer agricultural leaders in Canada - about 30 attendees, 5 p. handout).
48. Burras, C.L. June 04, 2015. Soil Productivity Ratings. Iowa Association of Realtors/Realtors Land Institute, Iowa Chapter, Burlington.
49. Burras, C.L. February 11, 2015. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program.
50. Burras, C.L. January 06, 2015. Managing soils in northwest Iowa – some predictions for 2030. Crop Advantage Series, Iowa State University Extension, Sheldon.
51. Burras, C.L. December 04, 2014. CSR2: Understanding Iowa's new Corn Suitability Rating. Session J, 26th Annual Integrated Crop Management Conference.
52. Burras, C.L. December 04, 2014. CSR2: Understanding Iowa's new Corn Suitability Rating. Session J, 26th Annual Integrated Crop Management Conference.
53. Burras, C.L. October 12, 2014. Predictions for the Near Future. ACES Residential Learning Community, Iowa State University.
54. Burras, C.L. October 07, 2014. Predictions for corn production in Iowa. Iowa State University Corn Growers Association, Iowa State University.
55. Burras, C.L., A. Anderson Mba, J. Richter, E. Dahlhauser, Z. Wang, C.R. DeLong and R. Pope. October 01, 2014. Discussion of soil morphology, landscapes and interpretations of 10 pedons in central Iowa. Region 5 Intercollegiate Soil Judging Contest & Workshop (Coaches Meeting), Iowa State University.

56. Burras, C.L. September 28, 2014. Iowa and its soils. Region 5 Intercollegiate Soil Judging Contest & Workshop (Introductory meeting), Iowa State University.
57. Burras, C.L. September 23, 2014. Soil productivity, CSR2 and what is next? 2014 Crops Team Fall In-Service, Iowa State University Extension & Outreach.
58. Burras, C.L. September 12, 2014. The soils, landscapes and watersheds of Iowa – How should we think about them? Environmental Science Club, Iowa State University.
59. Burras, C.L. September 09, 2014. Describing and understand soils and landscapes in the field. Ag Leadership Workshop for high school students, Iowa State University Horticulture Farm.
60. Burras, C.L. August 13, 2014. The roles of soil in successful cropping systems. Corn & Soybean Training for Western Canada and Eastern Europe, Field Education & Extension Laboratory, Iowa State University. (Program organized by Pioneer Hi-Bred, about 30 attendees, 4 p. handout).
61. Burras, C.L. April 23, 2014. What leadership means to me. Induction Ceremony for the Iowa State University Chapter of The National Society of Leadership and Success, Iowa State University.
62. Burras, C.L. February 27, 2014. Soil and landscapes of Iowa. MVTL Agronomy Update Meeting, Ames.
63. Burras, C.L. February 18, 2014. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program.
64. Burras, C.L. February 06, 2014. CSR2 in Wayne County, Iowa. Wayne County Soil Survey Official Release Meeting, Corydon (2 presentations).
65. Burras, C.L. February 04, 2014. Iowa's soils – formation & productivity. Central Valley Cooperative Agronomist Training Workshop, Johnston.
66. Burras, C.L. January 29, 2014. Soil productivity and best use of CSR2. Crop Advantage Series, Iowa State University Extension, Iowa City.
67. Burras, C.L. January 23, 2014. Soils – Master Gardener Training. Master Gardener Spring Lecture Series, Extension Communication Center, Iowa State University.
68. Burras, C.L. December 18, 2013. What we should know about CSR2. Crop Challenges for 2014, Iowa State University Extension, Charles City.
69. Burras, C.L. October 02, 2013. What we should know about CSR2. Iowa State University Extension Farm Management Specialist In-Service Training, Iowa State University.
70. Burras, C.L. October 01, 2013. What we should know about CSR2. Iowa State Assessors Association Annual Meeting, Des Moines.
71. Burras, C.L. September 24, 2013. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Reiman Gardens Iowa State University.
72. Burras, C.L. June 27, 2013. What we should know about CSR2. Southeast Iowa Research & Demonstration Farm Field Day, Crawfordsville.
73. Burras, C.L. September 10, 2013. Describing and understand soils and landscapes in the field. Ag Leadership Workshop for high school students, Iowa State University Horticulture Farm.

74. Burras, L. May 22, 2013. Implentation of CSR2 at Iowa State University. 86th Annual Soil Management & Land Valuation Conference, Iowa State University. (200 attendees)
75. Burras, C. L., May 02, 2013. CSR2 – An updated method to calculate corn suitability ratings for Iowa soils. Iowa Real Estate Commission, Ankeny. (seven page document)
76. Burras, C.L. April 08, 2013. The Soils of Iowa – How should we think about them? Soil & Water Conservation Club, Iowa State University.
77. Burras, C.L. April 04, 2013. Soils – An introduction for gardeners. Iowa Federated Gardens Club, Iowa Arboretum, Luther. (Includes a 20 question examination).
78. Burras, C.L. March 12, 2013. CSR2 – Iowa’s new corn suitability rating. McGuire Auction Co., Inc. Customer Appreciation Day, Holstein.
79. Burras, C.L. February 18, 2013. CSR2 – Iowa’s new corn suitability rating. Iowa Corn Crop Fair, Missouri Valley.
80. Burras, L. February 13, 2013. Iowa’s soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program. (5 page handout).
81. Burras, C.L. January 29, 2013. CSR2 – Iowa’s new corn suitability rating. Crop Advantage Series, Iowa State University Extension, Le Mars.
82. Burras, L. January 29, 2013. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Extension Building, Haber Road.
83. Burras, C.L. January 25, 2013. CSR2 – Iowa’s new corn suitability rating. Western Iowa No-Till Workshop, Walnut.
84. Burras, C.L. January 24, 2013. CSR2 – Iowa’s new corn suitability rating. Crop Advantage Series, Iowa State University Extension, Waterloo.
85. Burras, C.L. January 22, 2013. CSR2 – Iowa’s new corn suitability rating. Crop Advantage Series, Iowa State University Extension, Carroll.
86. Burras, C.L. January 21, 2013. CSR2 – Iowa’s new corn suitability rating. North Central Iowa Crop & Land Stewardship Clinic, Iowa Falls (two seminars)
87. Burras, C.L. January 09, 2013. CSR2 – Iowa’s new corn suitability rating. Crop Advantage Series, Iowa State University Extension, Okoboji. (two presentations)
88. Burras, C.L. January 03, 2013. CSR2 – Iowa’s new corn suitability rating. Crop Advantage Series, Iowa State University Extension, Sheldon.
89. Burras, C.L. November 02, 2012. CSR2 – Iowa’s new corn suitability rating. ISU Extension Field Agronomists Professional Development. ISU Alumni Center.
90. Burras, L. September 11, 2012. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Reiman Gardens.
91. Burras, C.L. September 06, 2012. CSR2 – Iowa’s revised corn suitability rating. Conservation Districts of Iowa Annual Conference, West Des Moines. (40 attendees).

92. Burras, C.L. July 26, 2012. The natural and agro-ecology of the Doolittle Prairie region. Rooted in Community Conference, Ames.
93. Burras, C.L. May 30, 2012. CSR2 – Iowa’s revised corn suitability rating. Iowa NRCS Leadership Team Meeting, Des Moines. (6 page handout).
94. Burras, C.L. May 29, 2012. How the 20th century changed the soils of Iowa. Iowa Lakeside Laboratory Summer Lecture (30 attendees).
95. Burras, L. May 09, 2012. The new corn suitability rating, CSR2. 85th Annual Soil Management & Land Valuation Conference, Iowa State University. (200 attendees)
96. Burras, L. February 15, 2012. Iowa’s soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program. (6 page handout). (*Program Evaluation results = 4.4/5.0*)
97. Burras, C.L. February 11, 2012. CSR2 and Land Stewardship in Iowa. Beginning Farmers Conference. (2 presentations, 70 attendees total)
98. Burras, C.L. February 08, 2012. Changes in the Corn Suitability Rating, Cass County, Iowa. Soil Survey Kick-Off, Atlantic. (2 presentations, 80 attendees total)
99. Burras, C.L. January 30-31, 2012. Changes in the Corn Suitability Rating, Dickinson County, Iowa. Soil Survey Kick-Off, Spirit Lake. (3 presentations over two days, 100 attendees total)
100. Burras, C. L. January 20, 2012. Soils, CSR and its viability in modern farming. 5th Annual Land Investment Expo, West Des Moines. (90 attendees).
101. Burras, L. January 17, 2012. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Reiman Gardens.
102. Burras, C.L. January 12, 2012. Practical Farmers of Iowa Soils 101 Workshop. Scheman Auditorium, Iowa State Center. (100 attendees, 3 page handout).
103. Burras, L. and Jason Steele. October 03, 2011. Iowa’s soils & their productivity: an examination of CSR2. Iowa State Association of Assessors 2011 School of Instruction and Conference, Des Moines. (250 attendees.)
104. Burras, L. September 13, 2011. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Reiman Gardens.
105. Burras, L. September 09-10, 2011. Glacial footprints of northwest Iowa. Natural History Weekend, Iowa Lakeside Laboratory. (40 attendees at Friday evening lecture and on the 4 hour long Saturday morning field trip).
106. Burras, L. August 31, 2011. Iowa’s soils & their productivity: an examination of CSR. Iowa Department of Revenue Agricultural Adjustment Committee, Hoover Building, Des Moines. (17 attendees representing IDR, IDALS, IDNR, Iowa Farm Bureau, Iowa Cattlemen’s Associations, County Auditors, County Assessors, etc.)
107. Burras, L. August 24, 2011. Iowa’s soils & their productivity. Road to 300 Field Day. Ellsworth Equestrian Center, Iowa Falls. (70 farmers; 30 agronomists)
108. Burras, L. April 26, 2011. The Terrestrial Carbon Cycle. Spirit Lake High School Earth Science class. Via Skyppe to Iowa Lakeside Laboratory.

109. Burras, C.L. April 21, 2011. Soils – A quick introduction. Homegrown Lifestyle, Iowa State University Extension. (with 2 page handout)
110. Burras, C.L. April 07, 2011. Soils – An introduction for gardeners. Iowa Federated Gardens Club, Iowa Arboretum, Luther.
111. Burras, L. February 16, 2011. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program. (with 6 page handout).
112. Burras, C.L. January 20, 2011. Human impacts on the soils and water of Iowa. Joint Meeting of the Iowa Chapters of the American Fisheries Association & The Wildlife Society, Honey Creek Resort, Lake Rathbun.
113. Burras, L. January 18, 2011. Soils – Master Gardener Training. Master Gardener Spring Lecture Series, Reiman Gardens.
114. Burras, C.L. November 18, 2010. Iowa soils and their productivity – a pedologist's perspective. Iowa State Association of Counties - Assessors Workshop, Coralville.
115. Burras, C.L. October 20, 2010. Food. Campus Sustainability Workshop. Sun Room, Memorial Union, Iowa State University.
116. Burras, L. September 14, 2010. Soils – Master Gardener Training. Master Gardener Fall Lecture Series, Reiman Gardens.
117. Burras, L. May 12, 2010. Iowa soils and their productivity – an update with CSR2. In-Service Program for Extension Economists, Department of Economics, Iowa State University.
118. Burras, L. March 23, 2010. Iowa soils and their productivity. 6th Annual Meeting of the American Society of Farm Managers & Rural Appraisers and Realtor's Land Institute, Ames.
119. Burras, L. February 18, 2010. Iowa's soils – origins, properties and productivity. Soil Fertility & Nutrient Management Short Course, Iowa State University Agribusiness Extension Education Program. (with 6 page handout).
120. Burras, L. September 24, 2009. Soil productivity and corn suitability ratings in Iowa. Iowa State University Extension Agronomist In-Service Workshop (with one page handout)
121. Burras, C.L. September 07, 2009. Pedologic & hydrologic context for Midwest agriculture. Food, Energy & Life in Iowa. Audience included University of Vermont visiting scientists and students and ISU's SusAg 620X students and instructors. (6 hour trip w/ 12 page handout).
122. Burras, L. April 21, 2009. Undergraduate experiences that advance scholarship – examples from Uganda. 3rd Annual Undergraduate Research Symposium. ISU Honors Program, MU Sun Room.
123. Burras, L. May 03, 2008. Physical geography of the Iowa Great Lakes – understanding soils & geology in conservation. Master Conservationist Program of Dickinson County & Iowa Lakeside Laboratory.
124. Burras, L. February 06, 2007. Advising philosophy and tips from an inadvertent “expert.” Iowa State University Advisor's Exchange Forum.
125. Burras, L., M. Barker, J. McLaughlin and C. Brummer. July 2004. Soil organic carbon and quality in the Chariton River Watershed, Iowa. ORNL-DOE Annual Review of the Chariton Valley Project, Centerville.

126. Wills, S.A. and L. Burras. 2003. Using geostatistics and GIS to describe and predict soil properties in Hayden Prairie and an adjacent agricultural fields. Baker Council, Agronomy Department, ISU.
127. Burras, L. November 2002. Soil health and Carbon Sequestration. Iowa Grassland Conference, West Des Moines.
128. Burras, L. and J.M. McLaughlin. September 2002. Soil organic carbon across landscapes and land uses in the Chariton Valley, Iowa. Crop Production & Physiology Seminar, ISU Agronomy.
129. Burras, L. and J. McLaughlin. July 2002. Soil quality and carbon content across selected fields of the Chariton Valley. ORNL-DOE Annual Review of the Chariton Valley Project, Centerville.
130. Burras, L., J.M. McLaughlin, and E.C. Brummer. August 2000. Switchgrass and soil carbon sequestration in south central Iowa. Iowa Prairie Lands Annual Meeting, Millerton.
131. Burras, L., J. Patton and J. Pinkston. May 2000. Summary comparison of Fayette and Fayette-like soils on Amish and “English” farms in Fillmore County, Minnesota. Rotational Grazing Field Day, Fillmore Soil & Water Conservation District.
132. Burras, L., J. McLaughlin, and N. Molstad. January 2000. Soil quality and carbon sequestration research. Chariton Valley Biomass Project Partners Meeting, West Des Moines.
133. Burras, L. December 1999. Determining soil carbon dynamics – an abbreviated overview. Working Group for Developing & Marketing a Credible Carbon Credit in Iowa. West Des Moines.
134. Burras, L., G. Miller, J. Cooper, M. Braster, and J. McLaughlin. December 1999. Dynamics of carbon sequestration in the Chariton Valley, Iowa – a preview. Working Group for Developing & Marketing a Credible Carbon Credit in Iowa, West Des Moines.
135. Burras, L., G. Miller, J. Cooper, and M. Braster. March 1999. Spatial and temporal dynamics of carbon sequestration in the Chariton Valley, Iowa – goals and approaches. Iowa Carbon Summit, IFBF, West Des Moines.
136. Burras, L. and M. Konen. September 1998. Spatiality of soils and sediments in closed basins from Iowa and Ohio. ISU Pedometrics Paper for Chad Berghoefer and Devin Helming, Cargill Inc., Ames.
137. Burras, L. August 1998 Human impact on soils in northwest Iowa. Iowa Lakeside Laboratory Summer Seminar Series.
138. Burras, L., K. Moore, and C. Brummer. February 1997. Switchgrass production in relation to soil variability and environmental quality. Chariton Valley RC&D and USDOE Quarterly Review Meeting, Iowa State University.

Expertise on soil productivity, soil change, soil survey and crop yields

1. Rebecca Vittetoe and C. Lee Burras. May 28, 2024 (recorded). Soil water and crop yields. Podcast discussion on “The Dirt by Nutrien eKonomics” (see: <https://nutrien-ekonomics.com/news/type/podcasts/>)
2. Burras, C.L. March 07, 2023. Interview by Aline Carrara for Gates Foundation project to determine best approach to interpretations needed in global soil surveys.
3. Burras, C.L. and Bradley Miller. March 02, 2023. Evaluation of best methods to determine CSR2 and yields for Iowa’s soil survey and NRCS eFOTG. (Patrick Chase, NRCS State Soil Scientist).

4. Burras, C.L. December 23, 2022. The importance of soils, soil productivity and future trends in agronomy across Iowa. WHO Radio Interview on “The Big Show.”
5. Burras, C.L. October 05, 2021. Evaluation of where CSR2 and related soil survey interpretations can fit into geospatial “smart” maps and recommendations being developed by SoilSerdem, a NSF funded research innovation project of Yones Khaledian with Daniel Linton.
6. Burras, C.L. and Bradley Miller. October 19, 2021. Soil health, soil carbon, soil productivity and soil mapping – improving links between ISU and NRCS for Iowa (Hillary Owens, Patrick Chase, Julie McMichael, Iowa NRCS Soils Leadership Team).
7. Burras, C.L. August 05, 2020. Review of CSR2 updates and related soil productivity indices. Hertz Farm Management.
8. Burras, C.L. May 28, 2020. Updated S factors for new Soil Taxonomy Subgroups in Iowa. Document to John Hammerly (NRCS Regional Soil Data Specialist, Indianapolis and Patrick Chase, NRCS State Soil Scientist).
9. Burras, C.L. October 29, 2019. Updated yields for all of Iowa’s soil map units for inclusion into USDA-NRCS Iowa eFOTG. Yields provided are for corn, soybeans, oats, alfalfa, Kentucky bluegrass and tall grasses. Excel file to Patrick Chase (NRCS State Soil Scientist) and Gregg Hadish (NRCS State GIS Specialist).
10. Burras, C.L. November 01, 2018. Updated yields for Iowa’s 28,574 soil map units for inclusion into USDA-NRCS Iowa eFOTG. Yields provided are for corn, soybeans, oats, alfalfa, Kentucky bluegrass and tall grasses. Excel file to Rick Bednarek (NRCS State Soil Scientist) and Gregg Hadish (NRCS State GIS Specialist).
11. Burras, C.L. December 12, 2017. CSR2 and flooding in Mahaska County. Property Assessment Appeals Board, State of Iowa (telephone testimony).
12. Burras, C.L. August 14, 2017. CSR2 and flooding in Vertisols of the Missouri River valley. Property Assessment Appeals Board, State of Iowa (telephone testimony).
13. Burras, C.L. July 21, 2017. CSR2 and flooding in the Saylorville Reservoir reserve pool, Polk County. Property Assessment Appeals Board, State of Iowa, Hoover Building, Des Moines.

Center for Sustainable Rural Livelihoods

1. Burras, C. Lee. April 18, 2024. Agronomy & Land Use Report. CSRL Annual Donor Conference.
2. Burras, C. Lee. October 05, 2023. Agronomy & Land Use Report. CSRL Fall Donor Workshop.
3. Burras, C.L. April 26, 2023. Agronomy & Land Use Report. CSRL Annual Donor Conference.
4. Burras, C.L. October 06, 2022. Agronomy & Land Use Report. CSRL Fall Donor Workshop.
5. Burras, C.L. April 28, 2022. Agronomy & Land Use Report. CSRL Annual Donor Conference.
6. Burras, C.L. April 28, 2021. Agronomy & Land Use Report. CSRL Annual Donor Conference.
7. Burras, C.L. January 26, 2021. Agronomy & Land Use Special Report. CSRL Special Meeting.
8. Burras, C.L. September 23, 2020. Agronomy & Land Use Report. CSRL Donor Planning Workshop.
9. Burras, C.L. August 24, 2020. Agronomy & Land Use Internal Report. CSRL Administrative Team.

Cooperative Soil Survey & ISU AES Reports (selected recent)

1. Burras, C.L., B.A. Miller and A.K. Manu. November 28, 2023. Annual Progress Report for Mapping & interpreting the soils of Iowa for 2022. NIFA Hatch IOWO5614 Duns No. 005309844.
2. Burras, C.L. February 17, 2023. Iowa annual report to NCERA-3.
3. Burras, C.L., B.A. Miller and A.K. Manu. December 10, 2022. Annual Progress Report for Mapping & interpreting the soils of Iowa for 2022. NIFA Hatch IOWO5614 Duns No. 005309844.
4. Burras, C.L., B.A. Miller and A.K. Manu. March 10, 2022. Annual Progress Report for Mapping & interpreting the soils of Iowa for 2021. NIFA Hatch IOWO5614 Duns No. 005309844.
5. Burras, C.L. November 29, 2021. Iowa annual report to NCERA-3.
6. Burras, C.L., B.A. Miller and A.K. Manu. September 30, 2020. Annual Progress Report for Mapping & interpreting the soils of Iowa for 2020. NIFA Hatch IOWO5614 Duns No. 005309844.
7. Burras, C.L. June 06, 2020. Iowa annual report to NCERA-3.
8. Burras, C.L. 2019. Iowa annual report to NCERA-3.
9. Burras, C.L. 2018. Iowa annual report to NCERA-3.
10. Burras, C.L. 2017. Iowa annual report to NCERA-3.

Volunteered research presentations – in or near Iowa or Louisiana

1. Papanicolaou, T. and C.L. Burras. November 29, 2007. Opportunities for hydropedology using Clear Creek Watershed. Iowa Hydraulics and Hydrology Laboratory, University of Iowa, Iowa City.
2. Lemus, R.W., E.C. Brummer, L. Burras, N.E. Molstad, and R.K. Doorenbos. March 2000. Cultivar and fertility effects on switchgrass yield and quality in the Chariton Valley, Iowa. American Society of Agronomy North Central Region Conference, Johnston, IA.
3. Mullenix, W., L. Burras, M.E. Konen, and N.E. Molstad. October 1999. Yield variability trends across a well-managed cornfield in central Iowa. ISU Plant Sciences Institute Colloquium.
4. Ricks, D., L. Burras, A. Bolender, and M.E. Konen. August 1996. Spatiality and composition of Mima mounds at Kalsow Prairie, Iowa. Program for Women in Science & Engineering.
5. Burras, L. January 1996. Evolution of structure during Clarion pedogenesis. ISU Soil Working Group.
6. Burras, L., H.A. DeRamus, E.G. Blakewood, and L.J. Desselle. March 1993. Soil erosion and sedimentation in an intensively row-cropped drainage basin from southern Louisiana. Louisiana Association of Agronomists Annual Conference, Baton Rouge.
7. Burras, L., J.V. Huner, and E.G. Blakewood. May 1993. Impact of crawfish burrowing in soils of southern Louisiana. Louisiana Academy of Science Annual Conference, Lafayette.
8. Blakewood, E.G., L. Burras, and J.V. Huner. May 1993. The effect of hydrological parameters on the burrowing ability of the Red Swamp Crawfish. Louisiana Academy of Science Annual Conference.

9. DeRamus, H.A. and L. Burras. May 1993. Mixed species grazing by sheep and cattle: forage production and utilization. Louisiana Academy of Science Annual Conference, Lafayette.

TEACHING RESPONSIBILITIES AND ACTIVITIES

Summary of recent teaching and course effectiveness given in chronological order. Effectiveness measured using standard student evaluations from discipline-rich courses.

Term	Course No.	Course Title (sometimes abbreviated)	Mean rating of instructor	“Very Good” ² (%)	Mean rating of course	Enroll- ment (n)
S 19	Agron 282	Soil Conservation & Land Use	4.65	75	4.53	90
	Agron 360	Environmental Soil Science	4.76	79	4.60	99
	Agron 463	Soil Formation & Landscape Relat.	5.00	100	5.00	41
	Agron 496A	Soils, Crops & Water of Costa Rica	4.96	96	4.96	36
F19	Agron 563	Soil Formation & Landscape Relat.	5.00	100	5.00	4
	Agron 282	Soil Conservation & Land Use	4.63	72	4.56	87
	Agron 496A	Soils, Agric. & Env. of Costa Rica	5.00	100	5.00	16
	Agron 575	Soil Formation & Transformation	5.00	100	5.00	4
S20	Ensci 250	Environmental Geography	4.78	88	4.73	88
	Agron 282	Soil Conservation & Land Use	Covid19	NA	NA	82
	Agron 360	Environmental Soil Science	Covid19	NA	NA	114
	Agron 463	Soil Formation & Landscape Relat.	Covid19	NA	NA	42
F20	Agron 463	Soil Form & Land (Uganda section)	Covid19	NA	NA	7
	Agron 563	Soil Formation & Landscape Relat.	Covid19	NA	NA	7
	Agron 282	Soil Conservation & Land Use	4.39	61	4.22	68
	Agron 496A	Virtual Agric. & Env. of Costa Rica	4.67	69	4.67	6
	Agron 496A	Virtual Agric. & Env. of Uruguay	4.75	75	4.63	15
S21	Agron 575	Soil Formation & Transformation	Covid19	NA	NA	4
	Ensci 250	Env. Geography	3.95	NA	4.08	94
	Agron 282	Soil Conservation & Land Use	4.64	NA	4.67	79
	Agron 360	Environmental Soil Science	4.60	NA	4.70	106
	Agron 463	Soil Formation & Landscape Relat.	4.70	NA	4.67	25
F21	Agron 563	Soil Formation & Landscape Relat.	Covid19	NA	NA	3
	Agron 282	Soil Conservation & Land Use	5.00	100	4.96	47
	Agron 496A	Soils, Crops & Water of Costa Rica	4.75	83	5.0	26
	Agron 575	Soil Formation & Transformation	5.00	100	5.0	5
S22	Ensci 250	Env. Geography	4.85	87	4.72	87
	Agron 282	Soil Conservation & Land Use	4.83	89	4.74	105
	Agron 360	Environmental Soil Science	4.76	75	4.60	93
	Agron 463	Soil Formation & Landscape Relat.	4.83	83	4.75	27
	Agron 496A	Soils, Crops & Water of Costa Rica	4.80	80	4.80	18
F22	Agron 563	Soil Formation & Landscape Relat.	4.67	83	4.67	8
	Agron 282	Soil Conservation & Land Use	4.91	94	4.66	74
	Agron 463	Soil Formation & Landscape Relat.	4.95	96	4.95	50
	Agron 496A	Soils, Crops & Water of Costa Rica	5.00	100	5.00	23
	Agron 563	Soil Formation & Transformation	5.00	100	4.60	9
S23	Ensci 250	Env. Geography	4.87	90	4.80	65
	Agron 282	Soil Conservation & Land Use	4.45	80	4.45	68
	Agron 360	Environmental Soil Science	4.84	85	4.67	141
	Agron 482X	Soils of the Tropics	4.80	80	4.60	11
F23	Agron 282	Soil Conservation & Land Use	4.92	92	4.77	89
	Agron 463	Soil Formation & Landscape Relat.	5.00	100	4.82	47
	Agron 563	Soil Formation & Landscape Relat.	4.71	71	4.43	10
S24	Agron 282	Soil Conservation & Land Use	4.90	93	4.74	93
	Agron 342	World Food Issues	4.89	89	4.75	68

Agron 360	Environmental Soil Science	4.83	85	4.76	120
Agron 482X	Soils of the Tropics	4.92	92	4.77	24
Agron 575	Soil Formation & Transformation	5.00	100	5.00	9

Examples of a few invited guest lectures & student recruiting

1. Burras, C. Lee. March 29, 2024. Environment & Sustainability Learning and Programs at Iowa State University. ISU CALS Student Recruiting Day.
2. Burras, C. Lee. March 27, 2024. Pedology & Edaphology of Kamuli, Uganda. Globe 494, Service Learning: Uganda.
3. Burras, C.L. February 19 & 21, 2024. Soils. NREM 120, Introduction to Renewable Resources, 300 students (2 lectures).
4. Burras, C. Lee. December 04, 2023. Soil change and the Earth's well-being. Biol/Gen 114X, Save the Planet Earth.
5. Burras, C. Lee. October 27, 2023. Environment & Sustainability Learning and Programs at Iowa State University. ISU CALS Student Recruiting Day.
6. Burras, C. Lee. October 19, 2023. Soils in the Tropics. Hort 496A, Study Abroad to India.
7. Burras, C. Lee. September 28, 2023. Lee's thoughts on the pedology & geology of Sturgis, South Dakota. Agron 370, "Soil Judging."
8. Burras, C.L. September 25 & 27, 2023. Soils. NREM 120, Introduction to Renewable Resources, 300 students (2 lectures).
9. Burras, C.L., August 22, 2023. Certification & licensing in Agronomy and related disciplines. Agron 279, Field Experiences in Agronomy (lecture given twice, i.e., 2 sections).
10. Burras, C.L. February 20 & 22, 2023. Soils. NREM 120, Introduction to Renewable Resources, 300 students (2 lectures).

Major professor to:

PhD & MS with thesis – date is year of completion.

1. Anderson, Amber D. 2023. Pedology as a scientific, teachable, and artistic discipline in the 21st century. PhD dissertation, 101 p.
Dr. Anderson is Assistant Teaching Professor, Iowa State University.
2. Nicola Timbas. 2021. Anthropolology of Mollisols w/ decades of cropping. PhD dissertation, 133 p.
Dr. Timbas is Assistant Professor of Soil Science (with tenure) at the University of Philippines Los Banos.
3. Matthew Streeter. 2021. Erosion and sediment delivery in eastern Iowa. PhD dissertation, 136 p.
Dr. Streeter is Research Soil Scientist at the Iowa Geological Survey, University of Iowa College of Engineering.
4. Francis Akitwine. 2021. Pedology of typical soils of Kamuli District and pedotransfer functions to predict cation exchange capacity in limited-resource settings. Unpublished MS thesis, 90 p.
5. Richter, Jennifer L. 2016. Soils of Iowa: An examination of three pedological assumptions. PhD dissertation, 214 p.
Dr. Richter is Soil Scientist, USDA Forest Service – Alaska.

6. Dahlhauser, Ethan M. 2016. Pedogenesis of outwash derived soils on terraces of the Des Moines River. Unpubl. MS thesis, 169 p.
7. Wang, Ziyang. 2015. Corn seedling response to silicon amendments in three Iowa and one Chinese soil. Unpubl. MS thesis, 121 p.
8. Mtama, Johnson G. 2015. Pedology of corn productivity indices for parts of Southern Highland Zone of Tanzania. Unpubl. MS thesis, 105 p.
9. Sassman, Aaron M. 2014. Corn production with Instinct nitrification inhibitor applied with urea-ammonium nitrate solution and liquid swine manure. Unpubl. MS thesis, 96 p. (co-major professor)
10. DeLong, Catherine R. 2014. A carbon assessment of Iowa State University's Land. Unpubl. MS thesis. 92 p.
11. Tiedeman, Mary L. 2013. Pedogenesis of ant colonized soils at Doolittle Prairie State Preserve, Iowa. Unpubl. MS thesis. 72 p.
12. Ibrahim, Mostafa A.A. 2011. Argillic horizons and clay-sized particles – an alternative interpretation of their dynamics in sola development and across catenas. PhD dissertation. 126 p.
Dr. Ibrahim is an independent consultant and inventor in soil management and amendments.
13. Veenstra, Jessica J. 2010. Fifty years of agricultural soil change in Iowa. PhD dissertation. 71 p.
Dr. Veenstra is Professor & Department Chair for Natural Sciences at Flagler College, St. Augustine, Florida.
14. Wasko, Lisa M. 2010. Alternative weed management practices: Effects of weed control, grapevine performance, and soil quality in an established Midwestern vineyard. Unpubl. MS thesis. 125 p.
Dr. Wasko-DeVetter is Associate Professor of Small Fruit Horticulture, Washington State University.
15. Oneal, Brad. 2009. Quaternary stratigraphy and pedology of Clear Creek watershed, Iowa County, Iowa. Unpubl. MS thesis. 205 p.
16. Nyasimi, Mary K. 2007. Culture and land as co-transformers of livelihood in the Awach River Basin of Lake Victoria. PhD dissertation, 130 p. (co-major professor).
Dr. Nyasimi is Founder and Executive Director, Inclusive Climate Change Adaptation for a Sustainable Africa, Nairobi, Kenya.
17. Miller, Bradley A. 2006. Spatial integration of watersheds, wetlands and tile drainage systems on the Des Moines Lobe, Iowa. MS thesis, 91 p. (co-major professor)
Dr. Miller is Associate Professor of Soil Science, Iowa State University.
18. Wills, Skye A. 2005. The spatial distribution of soil properties and prediction of soil organic carbon in Hayden Prairie and an adjacent agricultural field. PhD dissertation, 191 p. (co-major professor)
Dr. Wills is National Leader for Soil Survey Research, USDA-NRCS National Soil Survey Center.
19. Larabee, Beth E. 2005. Evolution of the Palms (Terric Haplosaprist) soil in Iowa, 1969-2001. Unpubl. MS thesis. 141 p.
20. Barker, Michael E. 2004. Soil quality in the Chariton Valley, Iowa. Unpubl. MS thesis. 128 p.
21. McLaughlin, Julie M. 2003. Soil carbon content, morphology and quality across three levels of pasture quality in the Chariton Valley, Iowa. Unpubl. MS thesis. 135 p.
Ms. McLaughlin-McMichael is Compliance Soil Scientist - Iowa (wetlands), USDA-NRCS, Des Moines.

22. Kost, John A. 2003. An assessment of potential agriculture nonpoint sources of water quality impairment in the Rathbun Lake Watershed. Unpubl. MS thesis. 51 p. (co-major professor)
23. Wills, Skye A. 2001. Hapludoll properties in woods & fields in central Iowa. Unpubl. MS thesis. 136 p.
24. Mullenix, Will A. 2000. Pedology and corn yields in relation to landscape across a Mollisol toposequence in north central Iowa. Unpubl. MS thesis. 89 p.
25. Molstad, Neil E. 2000. Landscapes, soil morphology, and switchgrass productivity in the Chariton River Valley, Iowa. Unpubl. MS thesis. 192 p.
26. Pinkston, Jennifer J. 2000. Morphological and chemical properties of soils in Amish and conventional fields in Minnesota and Ohio. Unpubl. MS thesis. 155 p.
27. Patton, Jamie J. 1999. Soil morphology in Amish and conventional fields throughout the central USA. Unpubl. MS thesis. 179 p.
Dr. Patton is Senior Outreach Specialist, Nutrient Management, University of Wisconsin, Madison.

Non-thesis students – completed.

28. Taylor, Katherine S. 2022. Pedology and crop response to pipeline installation in a C-S field in central Iowa. Creative Component (Soil Science).
29. Hensley, Rebecca. 2022. Variation among soil testing laboratories. Creative Component (Agronomy).
30. Holdwick, Ryan J. 2022. Influence of soil texture on specific corn (*Zea mays* L.) hybrid yield performance. Creative Component (Agronomy).
31. Okonek, Steven D. 2017. Reducing soil erosion in the Driftless Iowa, Wisconsin, through education. Creative Component (Agronomy).
32. Nordstrom, Steven D. 2017. Effectively understanding and communicating Iowa's Corn Suitability Rating 2 (CSR2). Creative Component (Agronomy).
33. Keninger, David. 2011. Corn suitability ratings: Are they an accurate indicator of crop yield? Creative Component MS (Soil Science).
34. Frederick, Christopher. 2008. A farmer's friend – Compilation of best farming management documents for Ghana. Creative Component MS (Agronomy).
35. Williams, V. 2003. Modeling changes in water-holding capacity using soil properties of subwatersheds containing Lake Osceola, Clarke County, Iowa. Creative Component MS (Water Resources).
36. Kipper, R.L. 2001. Soils under established trees in parks, towns, and cities in the central USA. Creative Component MS (IGS).
37. Steele, J.S. 2000. Designing fieldwork into high school environmental science curricula. Creative Component MS (IGS).

Graduate students being directed or co-directed.

1. Leticia Martinez. PhD, Soil Science, Universidad de la Republica Uruguay (with lead Co-Major Professor: Mario Perez Bidegain). Change of land use from pastoral to forestry: its impact on pedogenic processes in mild weather conditions. Likely completion – Semester 2 2023.

2. Francis Akitwine. PhD, Soil Science. Pedology, indigenous knowledge and updated pedological analysis for the Kamuli District, Uganda. Likely completion – December 2025.
3. Rebecca Alice Wokibula. PhD, Soil Science. Pedology and liming recommendations for small-holder farmers in Kamuli District, Uganda. Likely completion – December 2025.
4. Johnson Godlove Mtama. PhD Soil Science & Environmental Science. Pedology and maize production in the Southern Highland Zone of Tanzania. Likely completion – December 2025.

International Capacity Building & Visiting Scholars

Musa Buthelezi Dube. October 18 to 25, 2023. Pedology excursions around central Iowa and northeast Iowa with extensive follow-up discussions. Dr. Dube is an Associate Professor at University of KwaZulu-Natal, South Africa.

William Wilberforce Kadhumbula Gabula Nadiope IV (King of Busoga) and colleagues. Sunday, August 13, 2023. Led tour of central Iowa including visit to the Mesquakie PowWow with follow-up discussions.

Marina Costa. December 2022 through March 2023. Coffee production and soils in Brazil and other Latin America locales.

Moureen Mbeiza. October 2022. Improving Agronomy & Land Use data collection and evaluation with the Mpirigiti Rural Training Center, Kamuli Uganda.

Moureen Mbeiza, Rebecca A. Wokibula, Francis Akitwine and C. Lee Burras (Organizers). July 25, 2022. The 1st annual ISU-UP and NARO Cacao Workshop, Mpirigiti Rural Training Center, Kamuli Uganda.

Two PhD Visiting Scholars, Prava Kiran Dash and Nelida Silvero, joined all lectures, trips and assignments in Agron 575 in order to gain ISU-level pedology knowledge, Fall 2021.

Xiangyou Xia. January 2020 through December 2020. Visiting Scholar & Associate Professor of Soil Science at Northeast Forestry University, Harbin China; Funded by Chinese Academy of Sciences. Activities at or near ISU resulted in subsequently publishing two refereed articles.

Reagan Rosales Mulungi Mwenyi. January 2020. Staff with the ISU Uganda Program, Kamuli, Uganda. (Pedology & soil management training, Mpirigiti Training Center).

Miriam Namata. January 2020. Staff with the ISU Uganda Program, Kamuli, Uganda. (Pedology & soil management training, Mpirigiti Training Center).

Adam Bikumbia. January 2019. Staff with the ISU Uganda Program, Kamuli, Uganda. (Pedology training, Mpirigiti Training Center).

Peninah Tigs. January 2019. Staff with the ISU Uganda Program, Kamuli, Uganda. (Pedology training, Mpirigiti Training Center).

Enrique Villalobos. August 2018. Professor emeritus, University of Costa Rica. All activities at or near Iowa State University

Shuai Chen. December 2016 through December 2017. Pre-Doctoral Visiting Scholar, Chinese Academy of Sciences. Activities at or near ISU resulted in subsequently publishing two refereed articles

Moses Tenywa. January 2017. Professor, Makerere University, Kampala, Uganda (Co-hosted with Bradley Miller within a broader visit coordinated by Rob Mazur and Andy Lenssen). Activities at Iowa State University and the National Soil Survey Center, NE.

Onesmus Semalulu. January 2017. Research Scientist, National Agriculture Research Organization, Uganda (Co-hosted with Bradley Miller within a broader visit coordinated by Rob Mazur and Andy Lenssen). Iowa State University and the National Soil Survey Center, Lincoln, NE.

Yury Chendev. July 2008 through May 2009. Fulbright Fellow. (Co-hosted with Tom Sauer, USDA-ARS NLAE). Iowa State University with field work occurring in Eastern Iowa.

Mentor to PhD students in ISU Preparing Future Faculty program (partial list)

E. Britt Moore. 2019-2021. Soil Science. Rick Cruse & Tom Sauer, co-major professor

Anna Talcott. 2018-2020. Horticulture, William Graves, major professor.

Rivka Fidel. 2016. Soil Science & Sustainable Agriculture, David Laird, major professor.

Justin Glisan. 2010. Meteorology, William Gutowski, major professor.

Funded Grants and Contracts

(Limited to ones where Dr. Burras is a significant PI. "Collaborator" funding never listed.)

Miller, B.A, C.L. Burras, M.L. Thompson and M.D. McDaniel. 2023-2026. Know your Carbon Landscape: Data for Consistent Monitoring Soil Carbon. USDA-NRCS Conservation Evaluation & Monitoring Activity. \$1,996,993 (*Burras component = 5%*)

Burras, C.L. 2013-2014. Scientific Information Exchange - North Central Regional Cooperative Soil Survey Conference. USDA-NRCS. \$15,000 (*Burras component = 100%*)

Miller, G.A. and C.L. Burras. FY2008-2010. ISPAID and the Iowa Cooperative Soil Survey. Iowa Department of Agriculture and Land Stewardship. \$40,000 (*Burras component = 20%*).

Burras, C.L. 2007 to 2009. Contracts with eight counties regarding updated soil surveys as part of ISU's role in the Iowa Cooperative Soil Survey. Approximate total worth \$600,000 (*Burras = 10%*)

Papanicolaou, T. and C.L. Burras. FY2008-9 (*subcontract at ISU*) Impacts to the land-water-human system of rural Iowa from high-intensity continuous maize production. Leopold Center for Sustainable Agriculture. \$34,800 (*Burras component = 20%*)

Burras, C.L. FY2006-07. Pedology of the eastern Lake Victoria watershed. College of Agriculture Research Travel Grants. \$2500

Burras, C. L. and J.M. McLaughlin. FY2002-2005. Soil carbon farming in the Chariton Valley, Iowa: Landscape scale changes in soil organic carbon and quality. Chariton Valley RCD & Oak Ridge National Laboratory (ORNL). \$216,897 (*Burras component = 100%*)

Brummer, E.C., C.L. Burras and M. Duffy. FY2001-2005. Switchgrass and reed canarygrass as biomass crops in Iowa: Agronomy, germplasm evaluation and development, and soil suitability. ORNL Bioenergy Feedstock Program. \$240,000 (*Burras component = 30%*)

Burras, C. L. FY1999-2001. Spatial and temporal dynamics of carbon sequestration in the Chariton Valley, Iowa. Chariton Valley RC&D, \$112,369 (*Burras component = 100%*)

Thompson, J.R., and C.L. Burras. FY1998-2000. Identifying Environmental Constraints Affecting Tree Survival and Growth in Rural, Suburban, and Urban Public Settings. National Urban and Community Forestry Advisory Council, \$83,790 (*Burras component = 40%*)

Brummer, E.C., C.L. Burras, K.J. Moore, and M. Duffy. FY1998-2000. Switchgrass Production in Iowa: Economics, soils, and varietal performance. Oak Ridge National Laboratories, \$170,436 (*Burras component = 30%*)

DeRamus, H.A., L. Burras, and L. Labbe. 1995-1996. Management Intensive Grazing: Foundation of Sustainable Agriculture in the South. Southern Region SARE/ACE Program, \$94,335 (funding managed by University of Louisiana-Lafayette)

SERVICE – abbreviated list from the past 10 years or so

Marshal - University Commencement	ISU	2011-2024
Commencement Advisory & Planning Committee	ISU	2019-2024
Chair, Library Advisory Committee	ISU	2023-2024
Member, Faculty Review Board	ISU Provost	2024
Moderator, ISU FFA Crops Judging Contest	FFA	2023-2024
Panelist, Morrill Professor Leaders Workshop	CELT/Emerging Leaders	2023-2024
International Scholar Award Committee	ISU Provost	2022-2023
Search Committee re Agronomy Chair	ISU CALS/Agronomy	2022-2023
Co-Chair, NCSS Technology Committee	National Cooperative Soil Sur.	2023
CALS Spring Commencement Awards	ISU CALS/CALS Council	2021-2023
Morrill Professor Award Committee	ISU Provost	2023-2024
Morrill Professor Award Committee	ISU CALS	2023-2024
Promotion & Tenure Committee	ISU Agronomy	2022-2024
Chair, Recognition and Advancement Committee	ISU Agronomy	2019-2023
Library Advisory Council	ISU College of Library	2012-2023
Representative on CALS Curriculum Committee	Ensca	2022-2023
Education Abroad Committee	ISU	2017-2023
Examination Marshal, NACTA Crops Contest	ISU Agronomy	2023
Chair, Search Committee - Associate Dean	ISU Graduate College	2022
Co-Organizer, Region V Intercollege Soil Judging	ISU Agronomy	2022
Agronomy Learning Community Trip	ISU Agronomy	1999-2022
Ensca Presenter - Convocation	ISU CALS	1997-2022
Iowa Cooperative Soil Survey Tech Team	ISU Experiment Station	2010-2022
Judge, ISU FFA Soil Judging Contest	FFA	2015-2022
Proposal reviewer	FFAR - USDA	2021
Honors Adviser – Catherine Thom	ISU Honors/Agronomy	2021
Presenter (2 studios) – Passport to Success	ISU	2021
Floor Assistant, ISU FFA Crops Judging Contest	FFA	2021
Committee improve gender diversity & recognition	Amer. Soc. Agronomy	2019
Proposal reviewer	Swiss National Science Found.	2020
Fulbright Applicant Reviews	ISU Study Abroad Center	2019
Marshal – President Installation	ISU	2018
Orientation Panel for Parents of New Students	ISU	1998-2018
Chair, Catalog Committee	ISU Agronomy	2017-2020
Lecturer Search Committee	ISU Agronomy	2018
Adviser – Agronomy Club	ISU Agronomy	2015-2020
Adviser – Phi Sigma Pi Honorary	ISU	2016-2018
Goldwater Scholarship Committee	ISU Honors	2017
Senator – at large for Agriculture & Life Sciences	ISU Faculty Senate	2016-2017
Curriculum Committee	ISU Agronomy	2011-2020
Student Services Search Committee	ISU Agronomy	2016
“Trainer” on soil mapping and interpretations	MUK & NARO, Uganda	2015
Co-Chair, NC Regional Soil Survey Conference	National Coop. Soil Survey	2014
Co-organizer, Region 5 Soil Judging Contest	ISU Agronomy/ASA-SSSA	2014
Host, NCERA-3 Regional Meeting	USDA-Experiment Station	2014
Reviewer, SBIR/STTR Soil Proposal	National Science Foundation	2014

