

**Brad D. Lee**  
Department of Agronomy  
Purdue University  
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## **EDUCATION**

- 1/95 - 10/99      Ph.D., Soil Mineralogy/Pedology – University of California, Riverside, CA  
Major advisor: R.C. Graham, Professor of Soil Mineralogy/Pedology  
Dissertation title: Pedogenesis and mineral weathering in serpentinitic  
landslide terrain, Klamath Mountains, California
- 8/92 - 12/94      M.S., Pedology – Oklahoma State University, Stillwater, OK  
Major advisor: B.J. Carter, Professor of Soil Genesis  
Thesis title: Trace element distribution in six Oklahoma benchmark soils
- 8/88 - 7/92      B.S., Soil Science – Oklahoma State University, Stillwater, OK  
Minor: Geology

## **PROFESSIONAL EXPERIENCE**

- Associate Professor  
08/06 - present      Agronomy Department, Purdue University, West Lafayette, IN  
75% Extension / 15% Research / 10% Teaching  
Educate general public, local and state government agencies about  
soils, septic systems and natural resource information. Conduct  
applied research in soil and land use issues associated with the  
urban/rural interface. Teach undergraduate course in soils and  
septic systems.
- Assistant Professor  
1/01 – 08/06      Agronomy Department, Purdue University, West Lafayette, IN  
75% Extension / 15% Research / 10% Teaching
- Technical Advisor  
10/99 – 12/00      Consultant to the Water Use Efficiency Element of the CALFED  
Bay Delta Authority, Sacramento, CA  
Provided technical expertise as a member a cooperative team of  
interdisciplinary scientists, engineers, policy-makers and  
negotiators that make up the Water Use Efficiency Element of the  
CALFED Bay-Delta Program. Consulted with regional and local  
environmental, agricultural, and urban specialists regarding water  
flow, quality, and supply issues. Responded to local concerns  
from urban, agricultural, and environmental representatives and  
organizations about water use problems. Compiled and interpreted  
relevant data from state, federal and environmental organization  
investigations for baseline reference conditions necessary for plan  
development.

Research Assistant  
1/95 – 9/99

Department of Environmental Sciences, University of California, Riverside, CA  
Investigated ultramafic mineral weathering and heavy metal distribution within and surrounding a serpentinitic wetland. Characterized soils based on their vegetation, geomorphic position, chemical properties, and mineralogy.

Teaching Assistant  
9/95 - 12/98

Department of Environmental Sciences, University of California, Riverside, CA  
Instructed Introductory Soil Science Laboratory Course (4 qtrs.) Coordinated 5 sections, directed 3 teaching assistants, instructed 1 section. Developed new laboratory exercises or modified existing laboratory exercises to match availability of resources and meet the needs of students. Responsible for 80% of students' grades in course.

Instructed Soil Morphology Laboratory Course (2 qtrs.). Developed and implemented 4 written laboratory and field exercises. Responsible for 40% of students' final course grades.

Visiting Scientist  
7/98

Microscopy Center, University of McGill, Montreal, Canada  
Cooperated with microscopy center director in mineralogical investigation involving serpentine mineral weathering and neogenesis of layer silicates in soils. Applied geological and biological sample preparation techniques to soil materials for transmission electron microscopic analysis of fine-layered soil structures.

Forensic Mineralogist  
4/97 - 2/98

San Diego County District Attorney's Office, San Diego, CA  
Applied basic pedology and soil mineralogy investigation techniques to criminal case involving stolen exotic palm trees. Conducted field investigation, designed sampling scheme, developed laboratory protocol, and analyzed soil samples used in the discrimination potting mix. Prepared report for court proceedings detailing the techniques used and interpretation of results.

Research Assistant  
8/92 - 12/94

Department of Plant and Soil Sciences, Oklahoma State University, Stillwater, OK  
Investigated background levels of heavy metals in benchmark soils. Characterized soils based on morphological, mineralogical, and chemical properties.

<u>Teaching Assistant</u> 8/92 - 12/94	Department of Plant and Soil Sciences, Oklahoma State University, Stillwater, OK Assisted with instruction of Soil Judging Team (2 semesters). Instructed Soil Genesis and Classification Laboratory (2 semesters). Instructed Introductory Soil Science Laboratory (1 semester – 3 sections)
<u>Laboratory Assistant</u> 1/91 - 7/92	Department of Plant and Soil Sciences, Oklahoma State University, Stillwater, OK Sampled and described morphologic characteristics of soils. Prepared and analyzed soils for chemical and mineralogical properties.

## PUBLICATIONS

### *Research/Refereed*

- Lee, B.D.**, B.J. Carter, N.T. Basta, and B. Weaver. 1997. Factors influencing heavy metal distribution in six Oklahoma benchmark soils. *Soil Sci. Soc. Am. J.* 61:218-223.
- Lee, B.D.**, R.C. Graham, T.E. Laurent, and C. Amrhein. 2001. Spatial distributions of soil chemical conditions in a serpentinitic wetland and surrounding landscape. *Soil Sci. Soc. Am. J.* 65:1183-1196.
- Lee, B.D.**, T.N. Williamson, and R.C. Graham. 2002. Identification of stolen rare palm trees by soil morphological and mineralogical properties. *J. Forensic Sci.* 47:190-194.
- Lee, B.D.**, S.K. Sears, R.C. Graham, C. Amrhein, and H. Vali. 2003. Secondary mineral genesis from chlorite and serpentine in an ultramafic soil toposequence. *Soil Sci. Soc. Am. J.* 67:1309-1317.
- Lee, B.D.**, R.C. Graham, T.E. Laurent, and C. Amrhein. 2004. Pedogenesis in a wetland meadow and surrounding serpentinitic landslide terrain, Klamath Mountains, California, USA. *Geoderma.* 118:303-320.
- Dungan, R.S., U. Kukier and **B.D. Lee**. 2006. Blending foundry sands with soil: Effect on dehydrogenase activity. *Sci. of Total Environ.* 357:221-230.
- Lee, B.D.**, B.J. Jenkinson, J.A. Doolittle, R.S. Taylor and W. Tuttle. 2006. Electrical conductivity in a failed septic system absorption field. *Vadose Zone J.* 5:757-763.
- Dungan, R.S., **B.D. Lee**, P. Shouse and J. de Koff. 2007. Saturated hydraulic conductivity of soils blended with waste foundry sands. *Soil Sci. In press.*
- Hart, K.S., **B.D. Lee**, P.J. Schoeneberger, D.P. Franzmeier, P.R. Owens and D.R. Smith. 2007. Comparison of field measured soil absorption field loading rates to estimated loading rates from soil morphologic properties. *J. Hydrologic Engineering. In press.*
- de Koff, J.P., **B.D. Lee**, R.S. Dungan. 2007. Amelioration of hardsetting properties in waste foundry green sands. *J. Environ. Qual. In review.*

### *Teaching/Refereed*

- Lee, B.D.**, T.N. Williamson, R.C. Graham, and L.J. Lund. 1998. Forensic soils: An integrative laboratory exercise for introductory soil science. *J. Nat. Res. Life Sci. Educ.* 27:110-112.

- Dungan, R.S., **B.D. Lee**, and C. Amrhein. 1999. Stinking mud: Demonstration of redox reactions in flooded soils for introductory soil science. *J. Nat. Res. Life Sci. Educ.* 28:89-92.
- Lee, B.D.**, J.A. Wald, and L.J. Lund. 1999. Introducing students to online county soil surveys, STATSGO database, and GIS. *J. Nat. Res. Life Sci. Educ.* 28:93-96.
- Stout, H.M., and **B.D. Lee**. 2004. Land use planning exercise using geographic information systems and digital soil surveys. *J. Nat. Res. Life Sci. Educ.* 33:11-15.

### *Outreach*

#### Numbered Extension Bulletins (refereed)

- Franzmeier, D.P., G.C. Steinhardt, and **B.D. Lee**. 2001. Indiana soils: Evaluation and conservation. Purdue University Cooperative Extension Service. ID-72.
- Lee, B.D.**, D.D. Jones and H.M. Peterson. 2004. How and why septic systems fail. Purdue University Cooperative Extension. HENV-1-W.
- Stout, H.M., **B.D. Lee**, and D.D. Jones. 2004. Increasing the longevity of your septic system. Purdue University Cooperative Extension. HENV-2-W.
- Lee, B.D.** and D.P. Franzmeier. 2004. High water tables and perimeter drains. Purdue University Cooperative Extension. RW-1-W.
- Franzmeier, D.P., G. Steinhardt, and **B.D. Lee**. 2004. Indiana soils: Evaluation and conservation (tutorial included). Purdue University Cooperative Extension Service. ID-72a-W. ([http://www.agry.purdue.edu/soils\\_judging/](http://www.agry.purdue.edu/soils_judging/) verified Oct. 25, 2004).
- Lee, B.D.**, Z.J. Reicher, and D.D. Jones. 2004. Turfgrass color: Indicator of septic system performance. Purdue University Cooperative Extension. HENV-3-W.
- Lee, B.D.** and D.D. Jones. 2004. Septic system distribution boxes: Importance of equal distribution in trenches. Purdue University Cooperative Extension. HENV-4-W.
- Lee, B.D.** and D.D. Jones. 2004. Septic tanks: The primary treatment device in your septic systems. Purdue University Cooperative Extension. HENV-5-W.
- Lee, B.D.** and D.D. Jones. 2004. Grandfathered septic systems: Location and replacement/repair. Purdue University Cooperative Extension. HENV-6-W.
- Lee, B.D.**, D.P. Franzmeier, and D.D. Jones. 2004. Indiana soils and septic systems. Purdue University Cooperative Extension. HENV-7-W.
- Lee, B.D.**, D.D. Jones, and C. Bourke. 2004. Alternatives to gravel in conventional trench septic systems. Purdue University Cooperative Extension. HENV-8-W.
- Lee, B.D.** and D.D. Jones. 2005. Water use and septic system performance. Purdue University Cooperative Extension. HENV-9-W.
- Lee, B.D.** and D.D. Jones. 2005. Septic systems in flooded and wet soil conditions. Purdue University Cooperative Extension. HENV-10-W.
- Lee, B.D.**, D.D. Jones and G. Chapple. 2005. Obtaining a septic system permit. Purdue University Cooperative Extension. HENV-11-W.
- Lee, B.D.**, D.P. Franzmeier, P.R. Owens and D.D. Jones. 2005. Seasonally high water tables and septic system perimeter drains. Purdue University Cooperative Extension. HENV-12-W.
- Lee, B.D.**, D.D. Jones and R.F. Turco. 2005. Septic system additives. Purdue University Cooperative Extension. HENV-13-W.
- Hart, K.S. and **B.D. Lee**. 2005. Hydraulic conductivity and septic system performance. Purdue University Cooperative Extension. RW-2-W.

- Jones, D.D. and **B.D. Lee**. 2005. IOWPA certification practice questions. Purdue Extension Bulletin ID-327-W.  
(<http://pasture.ecn.purdue.edu/~epados/IOWPA/IOWPA.htm>)
- Lee, B.D.**, D.D. Jones and R.F. Turco. 2006. Wastewater biological oxygen demand in septic systems. Purdue Extension Bulletin HENV-14-W.
- Krenz, J.L., **B.D. Lee** and P.R. Owens. 2006. Swelling clays and septic systems. Purdue Extension Bulletin RW-3-W.
- de Koff, J.P., **B.D. Lee**, and A.P. Schwab. 2007. Protecting your family from lead in the home. Purdue Extension Bulletin *In review*.
- de Koff, J.P., **B.D. Lee**, and A.P. Schwab. 2007. Avoiding arsenic exposure from treated lumber around the home. Purdue Extension Bulletin *In review*.
- de Koff, J.P., **B.D. Lee**, and P.L. Ziemer. 2007. Radon: how to assess the risks and protect your home. Purdue Extension Bulletin *In review*.
- de Koff, J.P., and **B.D. Lee**. 2007. Urban composting: methods and uses of compost. Purdue Extension Bulletin *In review*.
- de Koff, J.P., and **B.D. Lee**. 2007. Urban composting: composting with worms. Purdue Extension Bulletin *In review*.

#### Newsletters

- Lee, B.D.** 2001. Septic systems and the urban fringe. *In*: Land use decisions and their impact on your quality of life. Purdue University Land Use Team. Purdue University Cooperative Extension Service. Misc. Publ.
- Stout, H. M. and **B.D. Lee**. 2002. Utility of GIS and septic system permit databases. Indiana Onsite Wastewater Professionals Association Quarterly Newsletter.
- Lee, B.D.** and D. P. Franzmeier. 2002. Perimeter drains and soil processes. Indiana Onsite Wastewater Professionals Association Quarterly Newsletter.

#### White papers (developed for state legislature)

- Lee, B.D.**, N. Carroll, and D.D. Jones. 2002. Statewide licensure of decentralized wastewater treatment system industry professionals. *Requested by* Indiana Land Resources Council.
- Jones, D.D. and **B.D. Lee**. 2002. Environmental impact of septic systems in Allen County. *Requested by* Senator Beverly Gard, Indiana State Legislature.

#### Research/Technical Reports

- Graham, R.C., **B.D. Lee**, and T.N. Williamson. 1997. Forensic analyses of palm soils, San Diego County Sheriff's Department, Case No. 97028841E. Submitted to San Diego County District Attorney.
- Lee, B.D.**, Don D. Jones, and B.J. Jenkinson. 2004. Pilot investigation: Soil nitrogen from three septic systems in sandy soils, Elkhart County, Indiana. Submitted to the Indiana Builders Association.
- Taylor R., **B.D. Lee**, and J. Doolittle. 2003. Mapping a failing septic field with electromagnetic induction. Engineering and Environmental Geophysics Society - Fast Times 8:9-11. Available on-line at <http://www.eegs.org/fasttimes/issues.cfm> (Posted Feb. 2003; verified 2 April 2003).

- Taylor R., **B.D. Lee**, and J. Doolittle. 2003. Conductivity of a septic system during failure and after decommissioning. Soc. for Exploration Geophysicists - Near Surface Views. 10:2-5. Available on-line at <http://nsgs.seg.org/Newsletter/NSGnewsletter.html> (Posted Feb. 2003; verified 2 May 2003)
- Taylor R., **B.D. Lee**, and J. Doolittle. 2003. Ground conductivity of a septic system during and after failure. Society of Exploration Geologists – The Leading Edge 22:555-556. Available on-line at <http://edge-online.org/detail/tle2206r.shtml> (Posted June. 2003; verified 18 Oct. 2004)

*Published Abstracts and Proceedings*

- Lee, B.D.**, B.J. Carter, T.D. Johnston, N.T. Basta, and P.A. Ward III. 1993. Trace element content of key Oklahoma soils. p. 300. *In* Agronomy abstracts. ASA, Madison, WI.
- Johnston, T.D., N.T. Basta, E.R. Allen, **B.D. Lee**, and B.J. Carter. 1993. Trace element distribution in benchmark soils in Oklahoma. p. 37. *In* Agronomy abstracts. ASA, Madison, WI.
- Lee, B.D.**, R.C. Graham, and T.E. Laurent. 1995. Aluminosilicate additions to ultramafic soils in the Klamath Mountains, California. p. 273. *In* Agronomy abstracts. ASA, Madison, WI.
- Lee, B.D.**, R.C. Graham, and T.E. Laurent. 1997. Redistribution of basic cations and redox-sensitive elements in an ultramafic wetland. p. 251. *In* Agronomy abstracts. ASA, Madison, WI.
- Laurent, T.E., P.A. McDaniel, R.C. Graham, A.L. Falen, K.R. Tice, and **B.D. Lee**. 1997. Spodosols along a high elevation gradient in the Klamath Mountains, California. p. 247. *In* Agronomy abstracts. ASA, Madison, WI.
- Lee, B.D.**, R.C. Graham, and T.E. Laurent. 1998. Secondary mineral formation in differing parent materials of ultramafic terrain, Klamath Mountains, California. p. 320. *In* Agronomy abstracts. ASA, Madison, WI.
- Lee, B.D.**, T.N. Williamson, R.C. Graham, and L.J. Lund. 1998. Basic morphologic and mineralogic techniques applied to solving an agricultural crime. p. 320. *In* Agronomy abstracts. ASA, Madison, WI.
- Stout, H.M. and **B.D. Lee**. 2002. Spatial distribution of soil limitations and onsite wastewater disposal system performance. Sigma Xi, Purdue University Chapter. Graduate Student Research Poster Competition p. 31.
- Stout, H.M., **B.D. Lee**, and J.G. Graveel. 2002. Spatial distribution of onsite wastewater treatment systems: Failure and environmental impact. p. 34-35. *In* Abstracts, Annual Soil and Water Conservation Society Conference. Indianapolis, IN.
- Stout, H. M. and **B.D. Lee**. 2002. Spatial distribution of soil limitations and septic systems. Indiana GIS Conference. p. 20. Indiana Geographic Information Council Proceedings. Indianapolis, IN.
- Lee, B.D.**, D.G. Schulze, H.D. Ruan, and H.M. Stout. 2002. Mineral precipitate and septic system failure in coarse-textured soil absorption fields. *In* Agronomy abstracts. ASA, Madison, WI.
- Stout, H.M., **B.D. Lee** and J.G. Graveel. 2002. Soil morphologic characteristics related to septic system performance in northern Indiana. *In* Agronomy abstracts. ASA, Madison, WI.

- Lee, B.D.**, and D.D. Jones. 2003. Assessment and alternatives to non-point source pollution from rural residential septic systems. p. 59-60. *In* Abstracts, Annual Soil and Water Conservation Society Conference. Spokane, WA.
- Lee, B.D.**, B.J. Jenkinson, J.A. Doolittle, and R.S. Taylor. 2003. Soil apparent conductivity in a failed septic system absorption field. *In* Agronomy abstracts. ASA, Madison, WI.
- Lee, B.D.**, B.J. Carter, P.A. Ward, R.S. Taylor, and L.P. Lee. 2004. Morphology of mounded soils in the Ouachita physiographic province, eastern Oklahoma. *In* Agronomy abstracts, ASA, Madison, WI.
- Hart, K.S., **B.D. Lee**, P.J. Schoeneberger and D.P. Franzmeier. 2005. Soil hydraulic conductivity of an Epiaqualf-Argiaquoll toposequence: Wabash moraine, northeastern Indiana. *In* Agronomy abstracts, ASA, Madison, WI.
- Krenz, J.L., **B.D. Lee**, D.G. Schulze, S.K. Sears, P.J. Schoeneberger, D.P. Franzmeier, and H. Vali. 2005. Illitic soils on the Bluffton Till Plain and associated moraines - northeastern Indiana *In* Agronomy abstracts, ASA, Madison, WI.
- DeKoff, J., **B.D. Lee**, R.S. Dungan. 2005. Chemical and mineralogical properties of iron and aluminum spent green foundry sands. *In* Agronomy abstracts, ASA, Madison, WI.
- Dungan, R.S., **B.D. Lee**, P. Shouse and N. Dees. 2005. Can waste foundry sands be used to improve the infiltration rate of poorly-drained soils? *In* Agronomy abstracts, ASA, Madison, WI.
- De Koff, J.P., **B.D. Lee** and R.S. Dungan. 2006. Amendment of high strength properties of waste foundry sands with gypsum. *In* Agronomy abstracts, ASA, Madison, WI.
- Lee, B.D.**, J.A. Wald, J.A. Doolittle and C.S. Miller. Soil properties of mounded landscapes on Fairchild Air Force Base, eastern Washington. *In* Agronomy abstracts, ASA, Madison, WI.
- Indorante, S.J. M.A. Wilson, L.R. Follmer, J.M. Kabrick, **B.D. Lee** and R.L. McLeese. 2006. MLRA based soil-landscape studies: Central USA example. *In* Agronomy abstracts, ASA, Madison, WI.
- Owens, P.R., F.V. Hernly, J. Iqbal and **B.D. Lee**. 2006. Using SSURGO data and historic data to delineate the drained Kankakee Marsh in northern Indiana. *In* Agronomy abstracts, ASA, Madison, WI.
- Warnemuende, E.A., **B.D. Lee**, R.S. Dungan and J.P. de Koff. 2006. Waste foundry sand soil amendment to reduce atrazine loading to surface runoff. *In* Agronomy abstracts, ASA, Madison, WI.
- Wilson, M.A. S.J. Indorante, **B.D. Lee**, L.R. Follmer, D.R. Williams, B.C. Fitch, K. Kleinschmidt, J.D. Bathgate, W.M. McCauley and R. Burt. 2006. Landscape evolution and soil pedogenesis in a MLRA benchmark catena. *In* Agronomy abstracts, ASA, Madison, WI.
- Winzeler, H.E., P.R. Owens, **B.D. Lee**, J. Iqbal and K.S. Hart. 2006. Soil spatial variability on the Wabash end moraine, Indiana. *In* Agronomy abstracts, ASA, Madison, WI.

## GRADUATE STUDENTS

- Stout (Peterson), Heidi. 2003. Soils and onsite wastewater treatment system performance in northern Indiana. M.S. Thesis. Purdue University, West Lafayette, IN.
- Krenz, Jennifer. 2006. Clay mineralogy of the Bluffton till plain, northeastern Indiana. M.S. Thesis. Purdue University, West Lafayette, IN.

- Hart, Kelli. 2006. Soil hydraulic conductivity of an Epiquauff-Argiaquoll toposequence: Wabash moraine, northeastern Indiana. M.S. Thesis. Purdue University, West Lafayette, IN.
- Adams, Vicki. 2006. Soil properties and septic systems. M.S. (*non-thesis option*). Purdue University, West Lafayette, IN.
- de Koff, Jason. *Expected May 2008*. Beneficial re-use of spent green foundry sand: Mineralogical and chemical properties. Ph.D. Dissertation. Purdue University, West Lafayette, IN.

## **COURSES DEVELOPED**

- AGRY 399V. Soils and Septic Systems, Fall 2002, Maymester 2004.  
 Course uses GIS and SSURGO and STATSGO databases to discuss soils, land use, and decentralized wastewater treatment systems.  
 Overall course rated 4.1/5.0 (2002), 4.5/5.0 (2004)  
 Instructor rated 4.2/5.0 (2002), 4.8/5.0 (2004)

## **GRANT ACTIVITY**

- Origin of smectite and chlorite in serpentinitic soils, Klamath Mountains Province, California. Clay Mineral Society Grant. 1997. PI. (\$2100)
- Computer conversion of Agronomy Department Soil Resources Center. Academic Programs, College of Agriculture, Purdue University. Co-PI. 2001. (\$38,400)
- Soil conditions and premature septic system failure, northeastern Indiana. Center for Disease Control, Block Grant. 2002. PI. (\$15,000)
- In-situ investigation of Fe-precipitate at absorption trench-soil interface. Brookhaven National Laboratory Travel Grant. 2002. PI. (\$650).
- Soil mineralogical processes involved in septic system failure. Indiana Water Resources Research Council. 2003. PI. (\$60,627)
- Septic system permit database. Indiana Water Resources Research Council. 2003. PI. (\$20,000)
- Pilot investigation: Fate of nutrients from septic systems in sandy soils of Indiana. Indiana Builders Association. 2003. PI (\$10,000)
- Fate of nutrients in sandy soils of Elkhart County. Elkhart County Health Department. 2003. PI (\$2,000).
- Septic system permit database integration and training. Howard County Health Department. 2004. PI (\$2000)
- Foundry sand recycling in the Midwest. USDA-ARS. 2004. PI (\$29,268).
- Recessional moraine soil hydraulic conductivity investigation: Northeastern Indiana. Indiana State Department of Health, Center for Disease Control Preventative Health and Health Services Block Grant Program. 2004. PI (\$26,999)
- Mineral characteristics of foundry sand: Impacts on soil hydraulic conductivity. USDA-ARS 2005. PI (\$45,000)
- Soil investigation in sensitive environments of Fairchild AFB, WA. Department of Defense – Air Force. 2005. PI. (\$24,250)
- Northeastern Indiana soil chemical and physical properties involved in premature septic system failure. Indiana State Department of Health, Center for Disease Control Preventative Health and Health Services Block Grant Program. 2005. PI (\$19,160)
- Mineral characteristics of foundry sand: Impacts on soil hydraulic conductivity. USDA-ARS 2006. PI (\$44,100)



## **SELECTED OUTREACH ACTIVITIES**

- Initiated, developed and authored/co-authored *Home and Environment* webpage (www.ces.purdue.edu/HENV)
- Initiated, developed and authored/co-authored *Home and Environment* Extension bulletin series for homeowners (Since June 2004 over 105,000 downloaded)
- Initiated, developed and authored/co-authored *Rural Wastewater* Extension bulletin series for county regulators and septic system professionals
- Developed and coordinated Soils and Septic Systems Workshop; two workshops per year in northern and southern regions of Indiana, 2001 to present
- Contributed technical soils and septic systems information to rural radio programs, and regional and state newspapers, 2001-present
- Purdue University representative to the Recessional Moraine Task Force: Interagency group formed by Indiana State Department of Health to investigate soils and septic system problems in northeastern Indiana, 2001 - present
- Participate annually in the education of ~1400 high school students through soil judging contests 2001-present
- Provided expert testimony to Indiana state legislative committees on two natural resource and environmental quality bills, 2003
- Provided assistance and language to the Indiana Legislative Services Agency for the fiscal analysis of promulgated Rule 410 IAC 6-8.2, Onsite Sewage Systems, 2003
- Incorporated interactive tutorial and developed web-based version of Indiana high school soil judging manual (ID-72-W, Indiana Soils: Evaluation and Conservation)

## **PROFESSIONAL CERTIFICATIONS**

- Indiana Registered Professional Soil Scientist, IRSS
- Certified Professional Soil Scientist, ARCPACS

## **PROFESSIONAL & HONORARY MEMBERSHIPS**

- American Quaternary Association
- Geological Society of America
- Gamma Sigma Delta
- Indiana Association of Professional Soil Classifiers
- Indiana Onsite Wastewater Professionals Association
- Purdue University Cooperative Extension Specialist Association
- Soil Science Society of America

## **PROFESSIONAL ACTIVITIES**

- 2008 - 2010 Soil Science Society of America Associate Editor, Divisions S05, Pedology, S09, Soil mineralogy, S10 Wetland soils
- 2007 Chair – Soil Science Society of America – S884, Soil micromorphology committee
- 2007 Chair –Land Based Wastewater Treatment Systems, sub-committee under Soil Science Society of America Division S05, Pedology
- 2007 President elect - Indiana Association of Professional Soil Classifiers

2006	Vice President – Indiana Association of Professional Soil Classifiers
2006	Chair, Soil Science Society of America – S880 Soil geomorphology committee
2005	Nominated for chair, Soil Science Society of America, Division S09
2003-2005	Committee member, Soil Science Society of America – S884, Soil micromorphology
2003-present	Committee member, Indiana Land Resources Council – Rural Wastewater Task Force
2003	Committee member, Indiana Builders Association - Septic System Subcommittee
2002-present	Liaison, Purdue University natural resources liaison to Indiana Legislative Services Agency
2002-present	Board member, Indiana Environmental Health Association – Wastewater Management Committee
2002-present	Education chair and Board member, Indiana Onsite Wastewater Professional Association
2002-2005	Committee member, Purdue University, School of Agriculture Grade Appeals
2001-present	Committee member, Indiana State Department of Health Recessional Moraine Task Force
2001	Session chair, ASA annual meetings, Division S05 Environmental Pedology session
1998-present	Reviewer, J. Environmental Quality, Geoderma, Soil Science Society America J., European J. Soil Science, J. Natural Resources Life Sciences
2000	Field trip leader, Western Soil Science Society Meetings, Southern Oregon University
1997 - 1999	Member, ESRI Inland Empire ArcView GIS User Group
1995 - 1999	Volunteer Soil Scientist, United States Department of Agriculture – Forest Service
1993 - 1994	President, Agronomy Graduate Student Organization, Oklahoma State University
1990 - 1992	Contestant, Oklahoma State University Soil Judging Team

## **AWARDS**

2004	Indiana Environmental Health Association President's Commendation
2002	Dean's Team Award, Land Use Team
1998 - 1999	Academic Senate Research Travel Grant, Univ. of California - Riverside
1997	Outstanding Teaching Assistant, Dept. of Environmental Sciences, University of California -Riverside
1990 & 1991	Oklahoma Plant, Food, Education Society Scholarship