Linda S. Lee
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Education

University of Florida	9/77 - 12/83	B.S. (Chemistry)
University of Florida	8/86 - 4/89	M.S. (Environmental Engineering Sciences)
University of Florida	1/90 - 6/93	Ph.D. (Soil Chem./Contaminant Hydrology)

Academic Appointments

2011- 2017	Associate Head, Department of Agronomy
2006 - present	Head, Ecological Sciences & Engineering Interdisciplinary Graduate Program
2016-2019	Courtesy Appointed Faculty, Division of Environmental and Ecological Engineering
2011-2016	Affiliated Faculty, Division of Environmental and Ecological Engineering
2005 - 2010	Associate Director, Discovery Park Center for the Environment
2006 - 2010	Pre-Environmental Studies Program, Chair (2006-07AY); Co-Chair (2007-09AY)
2001 - present	Professor, Purdue University, Department of Agronomy
1997 - 2001	Associate Professor, Purdue University, Department of Agronomy
1993 - 1997	Assistant Professor, Purdue University, Department of Agronomy
1984 - 1993	Chemist/Senior Chemist, University of Florida, Soil Science Department

Membership in Academic, Professional, and Scholarly Societies & Related Activities

American Chemical Society (ACS); American Society of Agronomy (ASA); Soil Science Society of America (SSSA); Society of Environmental Toxicology & Chemistry (SETAC); American Association for the Advancement of Science; The Advancement of Sound Science Coalition (TASSC); Ecological Soil Screening Task Group on Soil Chemistry (Eco-SSLs); Indiana Water Resources Research Center Faculty and External Advisory Committees; National Council of Science and the Environment (NCSE); Council of Deans and Director (CEDD); Association of Environmental Engineering and Science Professors (AAESP); EPA Peer Consultation PFOA Panel for Alabama Dow Site Evaluation; EPA Peer Consultation PFOA Panel for the DuPont Washington Works Site Evaluation; Perfluorotelomer Biodegradation Supplemental Environmental Project External Evaluation Team; NRC Report Review Team; DuPont C-F Forum.

Editorial Boards/National Committees

Associate Editor - Vadose Zone J. (2002-7) and J. Environ. Qual. (2003-6); W45 Mechanisms & Mitigation of Agrochemical Impacts on Human and Environmental Health (2000-5); W82/W1082/W2082 Evaluating the Physical and Biological Availability of Pesticides and Pharmaceuticals in Agricultural Contexts (1994-current); W2170 Beneficial Ruses of Residuals and Reclaimed Water: Impact on soil ecosystem and human health (2009-2013); Livestock & Poultry Expert (LPE) Pharmaceutical Expert Team (2007-09).

Awards and Honors

Chemist Certification, American Chemical Society (1984); Frederick B. Smith Scholarship, University of Florida (1991); Certificate of Merit, American Chemical Society (1991); University of Florida Sigma Xi Graduate Student Research Award (1992); Award for Excellence in Graduate Studies, Soil & Water Science, University of Florida (1993); Emil Truog Award for Best Doctoral Dissertation, Soil Science Society of America (1994); Gamma Sigma Delta Research Award of Merit (2001); Purdue University Faculty Scholar (2001-2006); SSAJ Citation for Excellence in Manuscript Review (2003); ASA Fellow (2003); SSSA Fellow (2004); Outstanding Assoc. Editor for J. of Environ. Quality (2004); Gamma Sigma Delta Award of Merit in Research & Teaching (2005); Outstanding Graduate Educator in Agronomy (2008, 2009, 2010); Purdue Graduate Student Government Faculty Mentor Award (2012); ES&T Excellence in Review Award (2014). COA Outstanding Graduate Educator (2015)

Publication Summary *(sine 1989): 94 Refereed papers; 2 in Review; 8 Book Chapters; 29* proceedings, reports, commentaries; >175 Research Abstracts

Complete List of Published Work in My Bibliography:
http://www.ncbi.nlm.nih.gov/sites/myncbi/1B5eTW8Stxw5E/bibliography/47984053/public/

Funding Summary: Received over 11 million dollars in funding from federal (e.g., USEPA, NSF, USDA-HEC, USDA-AFRI, USDA-BARD, AFCEC, SERDP) and state agencies (e.g., INDOT, IDEM), (e.g., DuPont, EPRI, Ish, Inc., Clean Coal Technology, IN Soybean REF, TetraTech), and local (Purdue-ARP, PRF, COA, OVPR, GS) since joining the faculty at Purdue in 1993.

Graduate Student Summary

Previous Major or co-Major Graduate Advisees: 16 PhD, 4 MS-Thesis, & 5 MS-nonthesis
Current Major Graduate Advisees: 2 PhD
Graduate Committee Member: > 65 MS and PhD graduates students

Graduate Student Summary as of Jan 2017 (Served as primary advisor or co-advisor)

Name	Degree/Degree	Current (or last known) Employment
Yousefi, Peyman	PhD	Current PhD student
Zenobio, Jenny	PhD	Current PhD student
Park, Saerom	MS (July 2013), PhD (2017)	Georgia Tech. University (Post Doc)
Schwartz, Colleen	MS	Withdrew/Medical
Wilbanks, Chris	MS (June 2016)	In transition
Choi, Younjeong	PhD (June 2016)	Purdue, Post Doc
Zull, Aaron	MS (Dec. 2015)	USEPA, Denver, CO
Martin, Andy	PhD (May 2014)	U.S. Army Corps of Engineers, Vicksburg, MI
Horn, Brittaney	MS (May 2014)	Pharmaceutical Company, IN
Sassman, Stephen	May (2015)	Analytical Company, Fort Worth, Texas
Mashtare, Michael	PhD (Dec 2013)	Purdue, Assistant Professor
Jannotta, Izabela	MS (May 2012)	Lab Assistant, Calumet
Dasu, Kavitha	PhD (2011)	USEPA, Cincinnati, OH
Qi Qi	MS (August 2011)	Industry
Stinson, Craig	MS (May, 2011)	Current PhD student in Chemistry (Purdue)
Royer, Laurel	PhD (March, 2011)	Exponent (Consulting firm)
Khan, Bushra	PhD (Dec. 2009)	University of Peshawar, faculty
Carmosini, Nadia	PhD (Jan. 2009)	U. Wisconsin-LaCrosse, faculty
Liu, Jin	PhD (2007)	McGill University, faculty
Kolbe, Jennifer	PhD (2006)	MWH (Engineering/Consulting)
Burns, Perre	PhD (2003)	Burns Environmental Engineering (Owner)
Jackson, Monica	MS (2005)	DNR
Hyun, Seunghun	PhD (2003)	Korea University SEOUL (faculty)
Strock, Troy	MS (2003)	USEPA Chicago
Lee, Jaesun	PhD	Finished in Pharmacy, Currently in Korea
Zhao, Maggie	MS (2002), PhD	Finished in Pharmacy; Currently at Mayo Clinic
Biegel, Connie	PhD	Currently - St. Mary's College (instructor)
Hawes, Kevin	MS (1999)	Dow (Michigan Office, Environmental Division)
Seol, Yongkoo	PhD (1998)	National Energy Technology Laboratory
Huang, Xinjiang	PhD (1999)	DuPont R&D (Agricultural Division)
Li, Hui	PhD (1999)	Michigan State University (faculty)
Priddy, Nick	MS (1996)	Wisconsin – WWTP
Xu, Tianbo	PhD (2005)	Bayer (North Carolina, Environmental Division)

Undergraduate Research Advisor*:* 20 Previous Undergraduate Research Advisees

Postdoctoral Associates and Visiting Scientists Sponsored (13 previous and 1 current): B. Khan, U. of Peshawar; N. Ghaffar , U. of Peshawar; H. Chen, Dalian Univ. of Technol.; Youn Choi, Purdue U.; A. Lacerda; U. of San Paulo; M. Mashtare, Purdue U.; L. Zhang, Beijing Normal U., China; Dr. S. Hyun, Korea U.; E. Thomas, U. of Ibadon, Nigeria; Dr. Sarmah, U. of Auckland, Australia; Dr. Burns, Burns Environmental; Dr. Hyun, Dr. Carmosini, Purdue U.; Dr. Oliviera, Embrapa, Brazil; Dr. Yan, WWTP, PA; Dr. Das, Indian Institute of Technol., India; Dr. Li, Michigan State U.; Dr. J. Kim, Korean U., Seoul Korea; Dr. X. Qiao, Dalian U. of Technol., China; C. Simond, EPFL.

Synergistic Activities

Ecological Science & Environmental Interdisciplinary Graduate Program (ESE IGP). Led the launching of this new faculty-developed program and currently serve as Program Head. The ESE-IGP program proposal was developed by a group of environmental faculty, approved in 2003 by the Graduate School, and launched in 2005. The growth of ESE-IGP has been explosive and has paralleled the maturity and exemplified leadership of many of our students. The ESE-IGP is now the fastest growing IGP and one of the three largest at Purdue. We currently (Nov 2016) have 23 MS and 55 PhD students enrolled. ESE's success has earned support from Colleges of Agriculture, Engineering, Science, Technology, and Liberal Arts, 17 department or school units and the Provost's Office. I have facilitated the success of a unique ESE cohort seminar/lab course that fosters the development of critical thinking and life cycle-type thinking skills, team building and integration across multiple social, ecological and technical sciences. We have developed an ESE Peer-to-Peer Mentoring course where more advanced ESE students formally mentor the incoming cohort. I have served as a PI on external fellowship grants that have been successful in bringing in top-notch students to our graduate programs and fostered professional development opportunities through paid internships, international travel opportunities, and an annual graduate-student organized symposium. The ESE-student developed and run Fall Symposia involving at least 200 students, faculty, and community members each year with symposia topics including "Inequality in Complex Systems: Characterizing Global Disparities", "Bridging the Gap from Sciences to Policy: Technology, Environment and Sustainable Development and "Solutions for 7: 7 billion people, 7 grand challenges", "The Urban Rise: Footprints of a Global Civilization", and the "Capturing Resilience" Summit. In addition, ESE students developed a spring Keystone Series addressing the social, economic, environmental, political, and technological dimensions of a particular issue (e.g., the inaugural was focused on the Keystone XL Pipeline in 2012) from which ESE students foster critical thinking skills across the campus and community. See www.purdue.edu/ese

Pre-Environmental Studies Program: Launched and facilitated development of a freshman program to serve as a single portal for students entering Purdue with an interest in environmental studies.

Courses: Developed a graduate course (1993) covering the fundamental processes responsible for the environmental fate of organic contaminants (AGRY 544 Environmental Organic Chemistry) and an undergraduate lecture/lab course on in which soil chemistry concepts are presented within the framework of chemical contamination (AGRY 385 Environmental Soil Chemistry) geared towards students weak in math and chemistry through a USDA/HECG, which are both taught annually.

Undergraduate and High School Student Mentoring: Mentored 3 high school students and 18 undergraduates through summer MARC/AIM, NSF, Minority SRP, SURF, USEPA, and honors.

Environmental Case Studies: Co-developed 3 teaching case studies integrating basic and applied sciences with ethics (oil spill, landfill, and wastewater re-use) published in *J. Natural Resources & Life Sci.,* and worked with colleagues at the Jordan University of Sci. & Technol. and American U. of Beirut to develop similar studies with incorporation of cultural differences.

Current Courses

AGRY/NRES385 is an upper level introductory course with 3 lectures and a 3-h wet lab each week that covers environmental soil chemistry concepts in the framework most applicable to metal, nutrient, and organic chemical contamination of soil and water resources. Students are empowered with knowledge and both semi-quantitative and quantitative skills in the fundamental properties and processes

responsible for the environmental fate of contaminants in the soil-water environment with emphasis on soil and solution chemistry. The intended audience includes students in an environmental science field that may not have strong chemistry/math backgrounds. No textbook.

AGRY544 focuses on the fundamental properties and processes responsible for the environmental fate of organic contaminants in aqueous and nonaqueous-phase liquids (e.g., fuels, chlorinated solvents, industrial and manufacturing residuals), and soils. Both conceptual and theoretical aspects are covered as well as estimation, correlation, and measurement techniques. Textbook: "Environmental Organic Chemistry", R.P. Schwarzenbach, P.M. Gschwend, and D. M. Imboden. 2nd ed., 2003. Wiley-Interscience.

GRAD590 (current) ESE Colloquium is a seminar/lab course for EE students that fosters the development of critical thinking and life cycle-type thinking skills, team building and integration across multiple social, ecological and technical sciences.

GRAD591 (current) ESE Peer-to-Peer Mentoring is for more advanced ESE students who formally mentor the incoming cohort particularly through facilitating and co-instructing the ESE Colloquium series.

Referred Journal Papers (* denotes graduate student advisee)

(Complete List: http://www.ncbi.nlm.nih.gov/sites/myncbi/1B5eTW8Stxw5E/bibliography/47984053/public/)

(1) Zenobio, J; Park, Saerom; Vecitis, Chad; Lee, Linda. 2017. Reductive degradation of perfluorooctane sulfonic acid (PFOS) By Activated Carbon Supported Ni^0F^0 Nanoparticles, *Environ. Sci. & Technol. Letters*, Manuscript ID: ez-2017-003278 (In revision).

(2) Choi*, Y. and L.S. Lee. 2017. Aerobic soil biodegradation of bisphenol (BPA) compared to BPA alternatives BPS and BPAF. Soils, *Environ. Sci. Technol., In press.*

(3) Hoover, G., M. Chislock, B. Tornabene, S. Guffey, Y. Choi, C. de Perre, J. Hoverman, L.S. Lee, and M. Sepulveda. 2017. Uptake and depuration of four perfluoroalkyl acids (PFAAs) in northern leopard frog Rana pipiens tadpoles, *Environ. Sci. Technol. Letters,* 10:339-403.

(4) Park*, S., C. de Perre, and L.S. Lee. 2017. Organic Defluorination Products, Pathways, and Branched-isomer Specific Transformation Rates for C8 and C6 Perfluoroalkyl Sulfonates with Vitamin B12-nanoZn^0, *Environ. Sci. Technol. In Press.*

(5) Horzmann, K., C. de Perre, Chloe, L.S. Lee, A. Whelton, and J. Freeman. 2017. Comparative Analytical and Toxicological Assessment of Methylcyclohexanemethanol (MCHM) Mixtures Associated with the Elk River Chemical Spill, *Chemosphere*, 188:599-607.

(6) Mohamad. A.; Deegan, D.; Gao, J.; de Perre, C.; Doucette, J.; Jenkinson, B.; Sepulveda, M. 2017. Gonadal intersex in smallmouth bass Micropterus dolomieu from northern Indiana with correlations to molecular biomarkers and anthropogenic chemicals. *Environmental Pollution*, 230:1099-110.

(7) Slade, J., P. Shepson, L.S. Lee, and C. de Perre. 2017. Nitrate radical oxidation of γ-terpinene: hydroxy nitrate, total organic nitrate, and secondary organic aerosol yields, *Atmos. Chem. Phys.* 17:8635–8650.

(8) Park*, S., J. Zenobio*, and L.S. Lee. 2017. Perfluorooctane sulfonate (PFOS) loss with Pd^0/nFe^0 nanoparticles: adsorption and Fe-complexation, not transformation, *Journal of Hazardous Materials. 342:20-28.*

(9) Choi*, Y. and L.S. Lee. 2017. Partitioning behavior of bisphenol alternatives BPS and BPAF compared to BPA, *Environ. Sci. Technol., Accepted, published on-line,* 10.1021/acs.est.6b05902.

(10) Zhang, L., L.S. Lee, J. Nie, and J. Liu. 2016. Kinetic Analysis of Aerobic Biotransformation Pathways of a Perfluorooctane Sulfonate (PFOS) Precursor in Distinctly Different Soils. *Environmental Pollution*, 229:158-167.

(11) Martin*, W. Andy, C. Nestler, L.S. Lee, S. L. Larson. 2016. Range Design Considerations Based on Behavior of Antimony and Lead under Dynamic Loading Conditions. Journal of Environmental Engineering, *Just released (04017024-9).*

(12) Wang, B., L.S. Lee, Wei, C. and D. Zhu. 2016. Covalent triazine-based framework: A promising adsorbent for removal of perfluoroalkyl acids from aqueous solution, *Environmental Pollution*, 216:884-92.
(13) Park*, S. L.S. Lee, V. F. Medina, A. Zull, and S. Waisner. 2016. Heat-activated persulfate oxidation of PFOA, 6:2 fluorotelomer sulfonate, and PFOS under conditions suitable for in-situ groundwater remediation. *Chemosphere,* 145:376-383.
(14) Gall*, H.E., N. B. Basu, P.S.C. Rao, M. Mashtare* and L.S. Lee. 2015. Assessing the Impacts of Anthropogenic and Hydro-Climatic Drivers on Estrogen Legacies and Trajectories, *Advances in Water Resources*, 87:19-28.
(15) Dasu*, K. and L.S. Lee. 2015. Aerobic Biodegradation of Toluene-2,4-di(8:2 fluorotelomer urethane) and Hexamethylene-1,6-di(8:2 fluorotelomer urethane) Monomers in Soil. *Chemosphere*, 144:2482-2488.
(16) Leet*, J.K., S. Sassman*, J.J. Amberg, A.W. Olmsteadd, L.S. Lee, G.T. Ankley, and M Sepulveda, 2015. Environmental Hormones and Their Impacts on Sex Differentiation in Fathead Minnows, *Aquatic Toxicology*, 158:98–107.
(17) Gall*, H.E., S.A. Sassman*, B. Jenkinson, L.S. Lee, and C. Jafvert. 2015. Comparison of Export Dynamics of Nutrients and Animal-borne Estrogens from a Tile-Drained Midwestern Agroecosystem, Water Research, *Water Research*, 72:162-173.
(18) Royer*, L., L.S. Lee, M. Russell, L. Nies, and R. Turco. 2015. Microbial transformation of 8:2 fluorotelomer acrylate and methacrylate in aerobic soils. *Chemosphere*, 129:54-61.
(19) Hyun*, S. and L.S. Lee. 2013. Soil Attenuation of As(III, V) and Se(IV, VI) Seepage Potential at Ash Disposal Facilities. *Chemosphere*, 93(9), 2132–2139 http://dx.doi.org/10.1016/j.chemosphere.2013.07.064.
(20) Martin*, W.A., L.S. Lee, and P. Schwab. 2013. Antimony migration trends from a small arms firing range compared to lead, copper, and zinc. *Sci. of the Total Environ.*, 463–464:222–228.
(21) Mashtare*, M. L.S. Lee, L.F. Nies, and R.F. Turco. 2013. Transformation of 17α-estradiol, 17β-estradiol, and estrone in sediments under nitrate- and sulfate-reducing conditions. *Environ. Sci. Technol.* 47(13):7178-7185, *DOI: 10.1021/es4008382.*
(22) Mashtare*, M., Green, D., and L.S. Lee. 2013. Biotransformation of 17α– and 17β-Estradiol in Aerobic Soils *Chemosphere*, 90(2), 647-652.
(23) Dasu*, K., L.S. Lee, R.F. Turco, and L. Nies. 2013. Aerobic Biodegradation of 8:2 Fluorotelomer Stearate Monoester and 8:2 Fluorotelomer Citrate Triester in Forest Soil. *Chemosphere,* 91, 399-405.
(24) Gall*, H., S. Sassman*, B. Jenkinson, L.S. Lee, and C. Jafvert. 2013(2014). Hormone Loads Exported by a Tile- Drained Agroecosystem Receiving Animal Manure Wastes. *Hydrological Processes*, 28: 1318–1328.
(25) Leet*, J., L.S. Lee, H. Gall, R. Goforth, S. Sassman, D. Gordon, J. Lazorchak, M. Smith, C. Jafvert, M. Sepulveda. 2012. Assessing impacts of land-applied manure from concentrated animal feeding operations on fish populations and communities. *Environ. Sci. Technol.*, 46(24):13440-7.
(26) Khan*, B. and L.S. Lee. 2012. Estrogens and Synthetic Androgens in Manure Slurry from Trenbolone Acetate/Estradiol Implanted Cattle and in Waste-Receiving Lagoons Used for Irrigation, *Chemosphere,* 89, 1443–1449.
(27) Card, Marcella L., Yu-Ping Chin, and Linda S. Lee. 2012. Prediction and experimental evaluation of soil sorption by natural hormones and hormone mimics. *J. Food Agric. Chem*., 60 (6):1480–1487.
(28) Dasu*, K., J. Liu* and L.S. Lee. 2012. Aerobic Soil Biodegradation of 8:2 Fluorotelomer Stearate Monoester Degradation. *Environ. Sci. Technol.*, 46:3831-36, DOI: 10.1021/es203978g.
(29) Gall*, H., S. Sassman*, L.S. Lee, and C. Jafvert. 2011. Hormone Chemograph Behavior in a Tile Drained Agroecosystem Receiving Animal Wastes. *Environ. Sci. Technol.*, 45:8755-8764.

(30) Kolbe*, J.L., L.S. Lee, C.T. Jafvert, and I. Murarka. 2011. Use of Alkaline Coal Ash to Mitigate Effects of Acid Mine Drainage. Proceedings in the 2011 World of Coal Ash Conference, May 9-12, 2011.

(31) Qiao, X., N. Carmosini, F. Liu, and L.S. Lee. 2011. Probing the Primary Mechanisms Affecting the Environmental Distribution of Estrogen and Androgen Isomers. *Environ. Sci. Technol.*, 81:911-917.

(32) Mashtare, M., B. Khan, and L.S. Lee. 2010. Evaluating stereoselective sorption by soils of 17α-estradiol and 17β-estradiol *Chemosphere*, 82:847–852.

(33) Dasu*, K., L.A. Royer*, J. Liu and L.S. Lee. 2010. Hydrolysis of Fluorotelomer Compounds Leading to Fluorotelomer Alcohol Production During Solvent Extractions of Soils. *Chemosphere*, 81:911-917.

(34) Hyun*, S. and L.S. Lee. 2010. Phenanthrene and 2, 2', 5, 5'-PCB Sorption by Several Soils from Methanol-water Solutions: The Effect of Weathering and Solute Structure. *Chemosphere*, 78(4), 423-429.

(35) Khan*, B. and L. S. Lee. 2009. Soil Temperature and Moisture Effects on the Persistence of Synthetic Androgen 17α-Trenbolone, 17β-Trenbolone and Trendione, *Chemosphere,* 79:873-879.

(36) Carmosini*, N. and L.S. Lee. 2009. Sorption of an Amphoteric Pharmaceutical Ciprofloxacin by Diverse Types of Dissolved Organic Carbon. *Chemosphere* 77:813-820.

(37) Khan, B., X. Qiao, and L.S. Lee. 2009. Stereo-selective Sorption by Agricultural Soils and Liquid-Liquid Partitioning of Trenbolone (17α and 17β) and Trendione. *Environ. Sci. Technol.* 43:8827–8833.

(38) Ralston-Hooper*, K., J. Hardy, L. Hahn, H. Ochoa-Acuña, L.S. Lee, R. Mollenhauer, and M. S. Sepúlveda. 2009. Acute and Chronic Toxicity of Atrazine and its Metabolites Deethylatrazine and Deisopropylatrazine on Aquatic Organisms, *Ecotoxicology*, Online June 2009, DOI 10.1007/s10646-009-0351-0.

(39) Carmosini*, N. and L.S. Lee. 2008. Partitioning of Fluorotelomer Alcohols to Different Sources of Dissolved Organic Carbon. *Environ. Sci. Technol*,. 42: 6550-6556.

(40) Goldberg, S., S, Hyun, and L.S. Lee. 2008. Chemical Modeling of As(III,V) and Se(IV,VI) adsorption by soils surrounding ash disposal facilities. *Vadose Zone J.*, 7(4):1231-1238.

(41) Khan*, B., S.A. Sassman, and L.S. Lee. 2008. Degradation 17α- and 17β-Trenbolone and Trendione in Agricultural Soils. *Environ. Sci. Technol.*, 42:3570-3574.

(42) Hyun*, S. and L.S. Lee. 2007. Pentachlorophenol sorption by variable-charge soils in methanol–water mixture: pH effect at the low solvent volume fraction. *Chemosphere,* 70(3): 503-510.

(43) Liu*, J., L.S. Lee, L.F. Nies, C.H. Nakatsu and R.F. Turco. 2007. Biotransformation of 8:2 Fluorotelomer Alcohol in Soil and by Soil Bacteria Isolates. *Environ. Sci. Technol*., 2007; 41(23); 8024-8030. DOI: 10.1021/es0708722.

(44) Liu*, J. and L.S. Lee. 2007. Effect of Perfluorocarbon Chain Length on Solubility and Sorption by Soils of Fluorotelomer Alcohols. *Environ. Sci. Technol.*, 41(15); 5357-5362.

(45) Sassman, S. and L.S. Lee. 2007. Sorption and Degradation in Soil of Veterinary Ionophore Antibiotics: Monensin and Lasalocid. *Environ. Toxicol. Chem.* 26, No. 8, pp. 1614–1621.

(46) Sassman, S., A.K. Sarmah, and L.S. Lee. 2007. Sorption and Degradation of Tylosin A, Tylosin D., and Tylosin A-Aldol in Soils. *Environ. Toxicol. Chem.*, 26(8):1629–1635.

(47) von Kiparski*, Guntram R., L. S. Lee, and A.R. Gillespie. 2007. Occurrence and Fate of the Phytotoxin Juglone in Alley Soils Under Black Walnut Trees. *J. Environ. Qual*., 36:709-717.

(48) Hyun*, S, P.E. Burns*, I.P. Murarka, and L.S. Lee. 2006. Se(IV and VI) sorption by soils surrounding fly ash management facilities. *Vadose Zone J*., 5:1110-1118.

(49) Burns*, P.E., S. Hyun*, L.S. Lee, and I.P. Murarka. 2006. Characterizing As(III, V) Adsorption by Soils Surrounding Ash Disposal Facilities. *Chemosphere,* 63(11):1879-1891.

(50) Hyun*, S., C.T. Jafvert, L.S. Lee, and P.S.C. Rao. 2006. Laboratory Studies to Characterize the Efficacy of Sand Capping a Tar-Contaminated Sediment. *Chemosphere*, 63:1621-1631.

(51) Liu*, J. and L.S. Lee. 2005. Solubility and Sorption by Soils of 8:2 Fluorotelomer Alcohol in Water and Cosolvent Systems. *Environ. Sci. Technol.* 39:7535-7540.

(52) Jafvert, C.T., D. Lane*, L.S. Lee, and P.S.C. Rao. 2006. Partitioning of Mono- and Poly-cyclic Aromatic Hydrocarbons in a River Sediment Adjacent to a former Manufactured Gas Plant Site. *Chemosphere,* 62:315-321.

(53) Sassman, S.A. and L.S. Lee. 2005. Sorption of Three Tetracyclines by Several Soil: Role of pH and Cation Exchange. *Environ. Sci. Technol.* 39: 7452-7459.

(54) Strock*, T.J., S.A. Sassman, and L.S. Lee. 2005. Swine Antibiotic Carbadox and Associated N-Oxide Reduced Metabolites. *Environ. Sci. Technol.,* 39:3134-3142.

(55) Hyun*, S. and L.S. Lee. 2005. Quantifying the Contribution of Different Sorption Mechanisms for 2,4-Dichlorophenoxyacetic Acid Sorption by Variable-Charge Soils. *Environ. Sci. Technol.,* 39:2522-2528.

(56) Zhai*, X., I. Hua, P.S.C. Rao, and L.S. Lee. 2005. Co-solvent Enhanced Chemical Oxidation of Perchloroethylene by Potassium Permanganate. *J. Contaminant Hydrol.* 82:61-74.

(57) Pu*, X., L.S. Lee, R.E. Galinsky, and G.P. Carlson. 2006. Bioavailability of 2,3',4,4',5-pentachlorobiphenyl (PCB118) and 2,2',5,5'-tetrachlorobiphenyl (PCB52) from Soils Using a Rat Model and a Physiological Based Extraction Test. *Toxicol.,* 217: 14-21.

(58) Hyun*, S. and L.S. Lee. 2004. Hydrophobic and Hydrophilic Sorption or Organic Acids by Variable Charge Soils: Effect of Chemical Acidity and Acid Functional Group on Organic Acid Sorption by Variable-Charge Soils. *Environ. Sci. Technol.* 38:5413 -5419.

(59) Bischoff, M., Lee, L.S., and R. F. Turco. 2005. Accelerated Degradation of N,N'-Dibutylurea (DBU) Upon Repeated Application, *Biodegradation,* 16:265-273.

(60) Lee, L.S., S.A. Sassman, R. F. Turco, and M. Bischoff. 2004. Degradation of N,N'-Dibutylurea (DBU) in soils treated with only DBU and DBU Fortified Benlate® Fungicides, *J. Environ. Quality,* 33:1771-1778.

(61) Zhu, D., S. Hyun*, J. J. Pignatello, and L.S. Lee. 2004. Evidence for π-π Electron Donor-Acceptor Interactions between π-Donor, Aromatic Compounds and π-Acceptor Sites in Soil Organic Matter through pH Effects on Sorption. *Environ. Sci. Technol.* 38:4361-4368.

(62) Pu*, X., L.S. Lee, R.E. Galinsky, and G.P. Carlson. 2004. Evaluation of a rat model versus a physiologically based extraction test for assessing phenanthrene bioavailability from soils. *J. Toxicol. Sci.,* 79:10-17.

(63) Hyun*, S. and L.S. Lee. 2004. Factors controlling sorption of prosulfuron by variable-charge soils and model Sorbents. *J. Environ. Qual*. 33:1354-1361.

(64) Sassman, S.A., L. S. Lee, M. Bischoff, and R. F. Turco. 2004. Assessing N,N'-Dibutylurea formation in soils after application of n-butylisocyanate and Benlate fungicides, *J. Food Agric. Chem*., 52:747-754.

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Book Chapters

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Summary of Research Funds for 2009-2016

Pakistan – U.S. Science and Technology Cooperation Program Phase 7. Endocrine Disrupting Chemicals (EDCs) in Kabul and Swat Rivers and Their Impact on Fish Populations and Rural Community Livelihoods. L.S. Lee (US P)I; B. Khan (Pakistan PI). 2017-2020. $386,784.

SERDP, Development of Amphibian Poly- and Perfluoroalkyl Substances Toxicity Reference Values for use in Ecological Risk Assessment at Aqueous Film Forming Foam Sites. 2016-2021. $2,457,532. M. Sepulveda (PI), co-PIs: L. S. Lee; J. Hoverman; other collaborators – D. Fort (Fort Laboratories, Stillwater, OK).

SERDP, Quantification of In-Situ Chemical Reductive Defluorination (ISCRD) of Perfluoroalkyl Acids in Groundwater Impacted by AFFFs. 2014-2018. $848,000. LS. Lee (PI), co-PIs: L. Nies (Purdue); other collaborators – USEPA (Cinn., OH), NMR Center at MSU, ERDC (MS)

DuPont, Instrumentation Proposal by Invitation. Two uPLC/MS/MS-TOF systems fully equipped with 3 years of service. $1.3M. PIs: Linda S. Lee and Christopher Higgins. (Funded – direct purchase in 2014 with no transfer of funds; One system came to Purdue and one to Colorado School of Mines).

PRF-AGRY. 2013. Fate and biological accessibility of bisphenol A, AF and S by the land application of biosolids. $16,500. 2013-2014.

*AFRI Postdoctoral Fellow proposal prepared and submitted by my PhD student Michael Mashtare. $140,365. Jan 2013-Dec 2015.

NIFA IRTA, IRTA. The Effects of Extreme Precipitation Regimes on Litter Quality and Mixed Litter Decomposition, $ 8,000, 1/14/2013-1/31/2014. Lee, Dukes (Funded)

NIFA NNF, Graduate Training in Land Use and Landscape Analysis for Forest and Agricultural Sustainability and Resilience, $211,500. Songlin Fei (PI), CoPIs: Bryan Pijanowski, Michael Saunders, Linda Lee, Kevin Gibson, Pamala Morris, Michael Jenkins. (Funded).

OVPR Purdue 2013-2015. Environmental and Health Assessment of Perfluorinated Compounds, $300,000. M Sepulveda (PI), CoPIs: Linda S. Lee and Jennifer Freeman.

USDA Water & Watersheds. October 1, 2009-2012. $ 400,000. Dynamics of Hormone Loads & Attenuation In Ditches And Streams Draining Agricultural Fields Receiving Animal Manure Applications. Linda S. Lee (PI), S. Rao, and N. Basu (U. Iowa).

Collaboration Supplement Request to Actively Participate on a USDA/EPA. 2008-2011. $206, 865. E-Coli Source and Transport Tracking in Manure-Applied Fields Project from Clarkson University and USEPA – Sample Collection & Coordination.

Collaboration Supplement Request to Actively Participate on a USDA/EPA $ 4,105. E-Coli Source and Transport Tracking in Manure-Applied Fields Project from Clarkson University and USEPA – Equipment Installation.

EPA STAR. http://es.epa.gov/ncer/ (#RD833417). 2007-2011 (1-y extension). Fate of Hormones in Tile-drained Fields & Impact to Aquatic Organisms under Different Animal Waste-Land Application Practices. Linda S. Lee (PI), Marisol Sepulveda, Chad Jafvert, Byron Jenkinson, et al. $750K

USDA NNF, Jan 1, 2010-2015. $ 236,000. Graduate Education to Meet the Agro-Ecosystem Services (AES) Challenge. Linda S. Lee (PI), S. Brouder, J. Volenec, K. Gibson, and L. Prokopy.

NIFA/USDA Special Programs (Washington) Project. Integrated economic, environment, and technical analyses of sustainable biomass energy systems. (FY09 & FY10) $351,263 (direct costs). W. Tyner, S.M. Brouder, L. Lee, B. Engel. Integrated.

NSF (CBET, EE, #0606899). http://www.nsf.gov/awards/ 2006-2010 (1-y extension). Systematic Evaluation of the Biotransformation Potential of Commercial Model Fluorotelomers in Soils. Linda S. Lee (PI) and Loring Nies. $350K

Washington Project. Integrated Economic, Environmental, and Technical Analysis of Sustainable Biomass Energy Systems. Lee, Tyner, Engel, et al. 10 million. Selected to go forward to Washington (Partial funding received each of 2008 and 2009).

INDOT. 2005-2008. Innovative Remediation Technology Implementation Plan for the Crawfordsville INDOT Row Site. Inez Hua (PI), P.S.C. Rao, Linda S. Lee. $150K

IN Office of Lieutenant Governor. 2006-2007. Planning the FCA Responded to the Obama/Lugar Amendment. F.t. Sparrow, F.T., L.S. Lee, F.H. Ribeiro, W.E. Tyner, R.P. Lucht, Center for Coal Technology Research.