

JEFFREY D. WOLT

Professor of Agronomy Emeritus
Iowa State University, Ames, Iowa

+1 (515) 292-9551
jdwolt@iastate.edu

Education

Ph.D., Agriculture (Soil Chemistry), Auburn University, 1979.
M.S., Agriculture (Agronomy and Soil Science), Auburn University, 1975.
B.S., Bio-Agricultural Science, Colorado State University, 1973.
Case Western Reserve University, Biology, 1969-71.

Academic Experience

Professor Emeritus, Agronomy, Iowa State University
Co-director, Crop Bioengineering Center, 2016-2018
Professor, Plant Biology Interdepartmental Program, Iowa State University, 2016-2018
Professor, Agronomy, Iowa State University, 2004-2018
Professor, Interdepartmental Toxicology Graduate Program, Iowa State University, 2004-2018
Professor, Interdepartmental Environmental Science Graduate Program, Iowa State University, 2004-2018
Adjunct Professor, Epidemiology, University of Iowa, 2013- present
Adjunct Professor, Agronomy, Purdue University, 1993-2004
Visiting Professor, Agronomy and Tropical Soils, University of Hawaii, 1988-1989
Associate Professor (tenured), Plant and Soil Science, University of Tennessee, 1984-1988
Assistant Professor, Plant and Soil Science, University of Tennessee, 1979-1984

Professional Experience

Advisor, Dow AgroSciences, 2003-2004
Risk Assessment Leader, DowElanco/Dow AgroSciences, 1997-2004
Environmental Issues Manager, DowElanco, 1995-1997
Senior Research Scientist, DowElanco, 1997-2002
Research Scientist, DowElanco, 1994-1997
Senior Scientist, DowElanco, 1991-1994
Technical Leader, Environmental Chemistry, Dow Agricultural Products/DowElanco, 1989-1995
Project Leader, Dow Agricultural Products, 1988-1991

Experience

Risk analyst for plant biotechnology, Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP) and Crop Bioengineering Center. Research on quantitative approaches to assessing human health and ecological safety for new technologies in agriculture. Specific areas of research emphasis include risks to non-target organisms; protein and xenobiotic environmental fate; protein characterization in relation to dietary exposure and risk; food safety risk assessment. Outreach responsibilities center on risk communication and formalized risk frameworks for risk management and public policy decision making with emphasis on genome edited crops. Applied soil solution chemistry, waste utilization and soil fertility. Environmental chemistry, toxicology and epidemiology.

Current Interests

Biotechnology safety analysis applied to risk management and science policy decision making. Environmental and ecotoxicological risk assessment. Food and feed safety risk assessment. Soil and environmental chemistry applied to exposure assessment, efficacy, environmental monitoring, environmental toxicology, and environmental fate of xenobiotics and genetically modified agricultural products. Applied soil solution chemistry.

Membership in Professional Societies

American Society of Agronomy
American Association for Advancement of Science (current)
American Chemical Society
Council for Agricultural Science and Technology
Crop Science Society of America
International Organization for Biological Control
International Society for Environmental Biosafety Research (current)
Society for Risk Analysis
Society of Toxicology
Soil Science Society of America

Honors and Awards

Member, National Academies of Science, Engineering and Medicine Committee on Future Biotechnology Products and Opportunities to Enhance Capabilities of the Biotechnology Regulatory System (2016)
Roster of Experts, Joint FAO/WHO Expert Committee on Food Additives (JECFA) (2016-2021)
Member, National Research Council Committee to Review of California's Risk Assessment Process for Pesticides (2015)
Fellow, American Society of Agronomy (2004)
Critical Contributions to Herculex™ Registration, Dow AgroSciences (2001)
Outstanding Mentor, DowElanco (1999)
Discovery Back Integration Team, DowElanco (1994)
Site Relocation Team, DowElanco (1991)
Sigma Xi (1978)
Phi Kappa Phi (1976)
Gamma Sigma Delta Honor Society of Agriculture (1975)

Professional Society & Association Activities

Emerging Issues in Soil Science Committee, Soil Science Society of America (2007)
Training and Continuing Education, Soil Science Society of America (2003 – 2007; Chair, 2007)
Sustaining Member Representative, ASA/CSSA/SSSA (2001 – 2004)
Non-target Organism Committee, CropLife, Agricultural Biotechnology Stewardship Technical Committee, ABSTC (2001 – 2004)
Steering Committee, CropLife, Agricultural Biotechnology Stewardship Technical Committee, ABSTC (2001 – 2004)
Applied Soil Sci Award Committee, Soil Science Society of America (2001 – 2004; Chair, 2004)
Co-leader, FIFRA Environmental Model Validation Task Force, FEMVTF (1995-2001)
AAAS Chemistry Division Liaison, Soil Science Society of America (1995 – 1998)
Membership Committee, American Society of Agronomy (1980 – 1983)

Teaching

Iowa State University

Risk Assessment for Food, Agriculture and Veterinary Medicine
Regulatory Toxicology
Issues in Sustainable Agriculture
Science, Policy and Food (contributor with A. O'Connor as lead)
Principles of Toxicology (as member of Toxicology team)
Agronomy Seminar
Soils Seminar

University of Iowa

Food Safety (contributor with J. Dickson as lead)

Purdue University

Environmental Soil Chemistry (co-taught with C. Johnston)

University of Tennessee

Plant Science for Agriculture
Soils
Soil and Plant Analysis
Senior Seminar
Soil Chemistry
Soil Fertility for Extension
Graduate Seminar
Soil Solution Chemistry

Institutional Service

Iowa State University

Coordinator and Director of Graduate Education, Soil Science (2015-2017)
Agronomy Graduate Advisory Council (2015-2017)
Search Committee – Soil-Plant Nutrient Dynamics (2015)
Agronomy Curriculum and Assessment Committee (2011-2018)
CALs Outcomes Assessment Committee (2016-2018)
Agronomy Promotion and Tenure Committee (2014-2017), Chair 2017
Chair, Environmental Science Graduate Program Admissions Committee (2013-2015)
Co-chair, Agronomy Research Training Fellows Program (2006-2013)
Supervisory Committee, Environmental Science Graduate Program (2010-2013)
Seed Science Center Expansion Committee (2007-2008)

University of Tennessee, Plant & Soil Science

Advisor, Plant Science Club
Undergraduate Recruitment Committee
Search Committee – Soil Microbiology
Search Committee – Agricultural Meteorology
Space and Facilities Committee

Training (12 visiting scientists/postdoctoral associates; 19 graduate students)

Individual	Program	Current (last known) Position
<i>University of Tennessee, Knoxville</i>		

Dr. Kein T. Luu	Postdoctoral Associate	Scientist, Waterways Experiment Station
Dr. Peiyuan Qian	Postdoctoral Associate	Research Professor, University of Saskatchewan (retired)
Dr. Frank Sikora	M.S., 1982	Professor, University of Kentucky
Jose Rangel	M.S., 1983	Farmer, Venezuela
Dr. M. Briggs Bauman	M.S., 1983	Doctor of Optometry, West Virginia
Mark Wolfe	M.S., 1984	Scientist, Tennessee Valley Authority
G. Wesley Haun	M.S., 1987	Research Agronomist, H.J. Baker & Bros.
S. Duane Hardin	M.S., 1988	Deceased
J. David O'Dell	M.S., 1989 (co-advised with J. Graveel)	Associate Professor of Chemistry, Glenville State College
<i>Purdue University</i>		
Kevin Hawes	M.S., 1999 (co-advised with L. Lee)	Director Corporate Quality Pharma Operations, Hospira
<i>Iowa State University</i>		
Dr. Saharah-Moon Chapotin	BIGMAP Policy Associate	Executive Director, United States Botanical Garden
Dr. Myhee Kim	Postdoctoral Associate	Director, Food Contaminants Division, Korea Food and Drug Administration
Dr. Sule Karaman	BIGMAP Policy Associate	Safety Assessment Expert, Novartis Institutes for Biomedical Research
Dr. Vijay Maheshwari	Borlaug Fellow	Professor and Director, School of Life Sciences, N. Maharashtra University
Dr. James Aketch Okeno	BIGMAP Policy Associate	Product Stewardship Manager, African Agricultural Technology Foundation
Dr. Yebing He	Borlaug Scholar	Deputy Division Director, Chinese Ministry of Agriculture Biotechnology Office
Dr. Zhongwen Fu	Borlaug Scholar	Assistant Professor, Chinese Ministry of Agriculture Technology Development Center

Dr. Assiya Turgenbayeva	Bolashak Scholar	Senior Researcher, Kazakhstan National Center for Biotechnology
Dr. AKM Quamruzzaman	Feed the Future (USAID)	Senior Plant Breeder, Bangladesh Agricultural Research Institute (BARI)
Dr. Hui Zhao	China Scholar	Lecturer, South China Agricultural University
Hirofumi Kosaki	M.S., Toxicology, 2007 (co-advised with J. Coats)	Health Care Manager, Mitsui Chemical, Inc.
Adam J. Kenny	M.S., Soil Sci. and Environmental Sci., 2012	Compliance Manager, Amazon EU
Huong Tran	M.S., Environmental Sci., 2013	Analyst, Solum Inc.
Matthew Cope	M.S., Seed Technology & Business, 2013	Research Associate, DuPont Pioneer
James Delgado	Ph.D., Toxicology, 2014	Consulting toxicologist
Tyler Steinkamp	M.S., Agronomy, 2015	District Agronomist, Winfield
Noel Peggs	M.S., Plant Breeding, 2015	Research Associate, DuPont Pioneer
Kent Kingbeil	M.S., Seed Technology & Business, 2016	Director of Precision Agriculture, Landis Cooperative
Kimberly Beachy	M.S., Seed Technology & Business, 2017	Agronomist, ProTech Partners
Kayla Cappelle	M.S., Toxicology, 2018	Data Analyst, General Dynamics Information Technology
Elliot Sully	M.S., Plant Biology, 2019	Research Associate, Corteva Agrisciences
Sarah Fleischmann	M.S., Plant Breeding, 2019	Output Trait Leader, Syngenta

Publications and Reports

Book

Wolt JD, *Soil Solution Chemistry*, 1994, Wiley.

Articles Published in Refereed Journals (88)

Wolt JD. 2019. Current risk assessment approaches for environmental and food and feed safety assessment. *Transgenic Res* (submitted).

Cappelle KN, Munkvold GP, Wolt JD. 2019. Meta-effect of insect resistant maize on fumonisin B1 in grain estimated by variance-weighted and replication-weighted analyses. *World Mycotoxin J* 12 (2):141-151.

Wolt JD, Wolf C. 2018. Policy and governance perspectives for regulation of genome edited crops in the United States. *Frontiers Plant Sci* 9:1606. doi10.3389/fpls.2018.01606.

- Duensing N, Sprink T, Parrott WA, Fedorova M, Lema MA, Wolt JD, Bartsch D. 2018. Novel features and considerations for ERA and regulation of crops produced by genome editing. *Frontiers Bioengineer Biotechnol* 6(79):1-16.
- Zhao H, Wolt JD. 2017. Risk associated with off-target plant genome editing and methods for its limitation. *Emerging Trends Life Science*, 1:231-240.
- Wolt JD, Wang K, Sashital D, Lawrence-Dill, CJ. 2016. Achieving plant CRISPR targeting that limits off-target effects. *The plant genome*, 9(3).
- Wolt JD, Yang B, Wang K, Spalding MH. 2016. Regulatory aspects of genome-edited crops. In *Vitro Cell Dev Biol-Plant* doi: 10.1007/s11627-016-9784-3.
- Wolt JD, Wang K, Yang B. 2016. The regulatory status of genome-edited crops. *Plant Biotechnol J* 14:510-518.
- Kenny AJ, Wolt JD. 2014. Persistence and ecological implications of maize-expressed transgenic endo-1,4- β -D-glucanase in agricultural soils. *Environ Toxicol Chem* 33:1996-2003.
- Yennamalli RM, Rader AJ, Kenny AJ, Wolt JD, Sen TZ. 2013. Endoglucanases: Insights into thermostability for biofuel applications. *Biotechnol Biofuels* 6:136.
- Kenny AJ, Wolt JD, Hurd HS. 2013. Collaborative Wikipedia projects in the virtual classroom. *Nat Sci Educ* 42:85-90.
- Okeno JA, Wolt JD, Misra MK, Rodriguez L. 2013. Africa's inevitable walk to genetically modified (GM) crops: Opportunities and challenges for commercialization. *New Biotechnol* 30:124-130.
- Okeno JA, Mutegi E, de Villiers S, Wolt JD, Misra MK. 2012. Morphological variability in the wild-weedy complex of sorghum bicolor in situ in Western Kenya: Preliminary evidence of crop-to-weed gene flow? *Int J Plant Sci* 173:507-515.
- Huesing J, Romeis J, Ellstrand N, Raybould A, Hellmich R, Wolt J, Ehlers J, Dabiré C, Fatokun C, Hokanson K, Ishiyaku MF, Margam V, Obokoh N, Mignouna J, Nangayo F, Ouedraogo J, Pasquet R, Pittendrigh B, Schaal B, Stein J, Tamò M, Murdock L. 2011. Regulatory considerations surrounding the deployment of Bt-expressing cowpea in Africa: Report of the deliberations of an expert panel. *GM Crops* 2:211-224.
- Yennamalli RM, Wolt JD, Sen TZ. 2011. Dynamics of endoglucanase catalytic domains: Implications towards thermostability. *J Biomol Struct Dyn* 29:509-526.
- Delgado JE, Wolt JD. 2011. Fumonisin B1 toxicity in grower-finisher pigs: A comparative analysis of genetically engineered Bt corn and non-Bt corn by using quantitative dietary exposure assessment modeling. *Int J Environ Res Public Health* 8:3179-3190; doi:10.3390/ijerph8083179.
- Yennamalli RM, Rader AJ, Wolt JD, Sen TZ. 2011. Thermostability in endoglucanases is fold-specific. *BMC Struct Biol* 11:10.
- Kim M, Wolt JD. 2011. Probabilistic risk assessment of dietary cadmium in South Korean population. *Food Addit Contam* 28:62-70.
- Wolt JD. 2011. A mixture toxicity approach for environmental risk assessment of multiple insect resistance genes. *Environ Toxicol Chem* 30:763-772.
- Delgado JE, Wolt JD. 2010. Fumonisin B₁ and implications in nursery swine productivity: a quantitative exposure assessment. *J Anim Sci* 88:3767-3777.
- Wolt JD, Peterson RKD. 2010. Prospective formulation of environmental risk assessments: probabilistic screening for Cry1A(b) maize risk to aquatic insects. *Ecotox Environ Safe* 73:1182-1188.
- Correia AP, Wolt JD. 2010. Graduate education in risk analysis for food, agriculture and veterinary medicine: challenges and opportunities. *J Nat Resour Life Sci Educ* 39:109-119.

- Wolt JD, Kees P, A Raybould, Fitzpatrick JW, Burachik M, Gray A, Olin SS, Schiemann J, Sears M, Wu F. 2010. Problem formulation in the environmental risk assessment for genetically modified plants. *Trans Res* 19:425-436.
- Shelton AM, Naranjo SE, Romeis J, Hellmich RL, Wolt JD, Federici BA, Albajes R, Bigler F, Burgess EPJ, Dively GP, Gatehouse AMR, Malone LA, Roush R, Sears M, Sehnal F, Ferry NA, Bell HA. 2009. Appropriate analytical methods are necessary to assess nontarget effects of insecticidal proteins in GM crops through meta-analysis. *Environ Entomol* 38(6): 1533-1538.
- Wolt JD. 2009. Advancing environmental risk assessment for transgenic biofeedstock crops. *Biotechnol Biofuels* 2:27.
- Shelton AM, Naranjo SE, Romeis J, Hellmich RL, Wolt JD, Federici BA, Albajes R, Bigler F, Burgess EPJ, Dively GP, Gatehouse AMR, Malone LA, Roush R, Sears M, Sehnal F. 2009. Setting the record straight: a rebuttal to an erroneous analysis on transgenic insecticidal crops and natural enemies. *Trans Res* 18:317–322.
- Kosaki H, Wolt JD, Wang K, Coats JR. 2008. Subacute effects of maize-expressed vaccine protein, *Escherichia coli* heat-labile enterotoxin subunit B (LTB), on the springtail, *Folsomia candida*, and the earthworm, *Eisenia fetida*. *J Agric Food Chem* 56:11342-11347.
- Romeis J, Bartsch D, Bigler F, Candolfi M, Gielkens MMC, Hartley SE, Hellmich RL, Huesing JE, Jepson PC, Layton R, Quemada H, Raybould A, Rose RI, Schiemann J, Sears MK, Shelton AM, Sweet J, Vaituzis Z, Wolt JD. 2008. Assessment of risk of insect-resistant transgenic crops to nontarget arthropods. *Nature Biotechnol* 26:203-208.
- Kosaki H, Coats J, Wang K, Wolt J. 2008. Persistence and degradation of maize-expressed vaccine protein, *Escherichia coli* heat-labile enterotoxin subunit B, in soil and water. *Environ Toxicol Chem* 27:1227-1236.
- Kim M, Wolt JD. 2008. Cadmium exposure in the South Korean population: Implications of input assumptions for deterministic dietary assessment. *Human Ecol Risk Assess* 14:835-850.
- Herzmann DE, Wolt JD, Arritt, R. 2008. Representativity of a mesoscale network for weather-related factors governing pollen dispersal. *Int J Biometeorol* 52:617–624.
- Wolt JD, Karaman S. 2007. Estimated environmental loads of alpha-amylase from transgenic high-amylase maize. *Biomass Bioenerg* 31:831-835.
- Beyer AJ, Wang K, Umble AN, Wolt JD, Cunnick JE. 2007. Low dose exposure and immunogenicity of transgenic maize expressing the *Escherichia coli* heat-labile toxin B subunit. *Environ Health Persp* 5:354-360.
- Wolt JD, Karaman S, Wang K. 2007. Risk assessment for plant-made pharmaceuticals. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition, and Natural Resources* 2:1-7.
- Chapotin SM, Wolt JD. 2007. Genetically engineered plants for the bioeconomy. *Trans Res* 16:675-688.
- Peterson RKD, Meyer SJ, Wolf AT, Wolt JD, Davis PM. 2006. Genetically engineered plants, endangered species, and risk: A temporal and spatial exposure assessment for karner blue butterfly and Bt maize pollen. *Risk Anal* 26:845-858.
- Wolt JD, Wang K, and Peterson RKD. 2006. Risk of unintended antigen occurrence in food: A case instance for maize-expressed LT-B. *Human Ecol Risk Assess* 12:856-870.
- Wolt, JD, Conlin C, Majima K. 2005. An ecological risk assessment of Cry1F maize pollen impact to pale grass blue butterfly. *Environ Biosafety Res* 4:243-251.
- Schnepf HE, Lee S, Dojillo J, Burmeister P, Fencil K, Morera L, Nygaard L, Narva KE, Wolt JD. 2005. Characterization of Cry34/Cry35 binary insecticidal proteins from diverse *Bacillus thuringiensis* strain collections. *Appl Environ Microbiol* 71:1765-1774.

- Shan G, Embrey SK, Herman RA, Wolt JD, Weston D, Mayer LM. 2005. Biomimetic extraction of *Bacillus thuringiensis* insecticidal crystal proteins from soil based on invertebrate gut fluid chemistry. *J Agric Food Chem* 53:6830-6634.
- Wolt JD. 2004. A meta-effects-evaluation of nitrapyrin agronomic and environmental effectiveness with emphasis on corn production within the Midwestern USA. *Nutr Cycl Agroecosys* 69:23-41.
- Wolt JD, Shyy Y-Y, Christensen P, Dormin KS, Misra M. 2004. Quantitative exposure assessment for confinement of maize biogenic systems. *Environ Biosafety Res.* 3:1-14.
- Wolt JD, Peterson RKD, Bystrak P, Meade T. 2003. A screening level approach for non-target insect risk assessment: Transgenic Bt corn pollen and the monarch butterfly (*Lepidoptera: Danaidae*). *Environ Entomol* 32:237-246.
- Landry TD, Chew L, Davis L, Frawley N, Stelman SJ, Thomas J, Wolt J, Hanselman DS. 2003. Safety evaluation of archaeal α -amylase (BD 5088) enzyme preparation expressed by *Pseudomonas fluorescens* Biovar I. *Regul Toxicol Pharma* 37:149-168.
- Herman RA, Wolt JD, Halliday WR. 2002. Rapid degradation of the Cry1F insecticidal crystal protein in soil. *J Agric Food Chem* 50:7076-7078.
- Herman RA, Scherer PN, Wolt JD. 2002. Rapid degradation of a binary, PS149B1, δ -endotoxin of *Bacillus thuringiensis* in soil, and a novel mathematical model for fitting curve-linear decay. *Environ Entomol* 31:208-214.
- Wolt JD, Singh P, Cryer S, Lin J. 2002. Plackett-Burman sensitivity analysis in environmental modeling. *Environ Toxicol Chem* 21:1558-1565.
- Wolt JD, Nelson HP Jr, Cleveland CB, van Wesenbeeck IJ. 2001. Biodegradation kinetics for pesticide exposure assessment. *Rev Environ Contam Toxicol* 169:123-164.
- Wolt JD, Peterson RKD. 2000. Agricultural biotechnology and societal decision-making: The role of risk analysis. *AgBioForum* 3:291-298.
- Wolt JD. 2000. Nitrapyrin behavior in soils and environmental considerations. *J Environ Qual* 29:367-379.
- Wolt JD. 1999. Exposure endpoint selection in acute dietary risk assessment. *Regul Toxicol Pharma* 29:279-286.
- Krieger MS, Merritt DA, Wolt JD, Patterson VL. 1998. Concurrent patterns of sorption-degradation for oryzalin and degradates. *J. Agric. Food Chem.* 46:3292-3299.
- Wolt JD. 1997. Environmental chemistry of ethalfluralin. *Rev Environ Contam Toxicol* 153:65-90.
- Van Weesenbeeck IJ, Zabik JM, Wolt JD, Bormett GA, Roberts DW. 1997. Field dissipation of chloransulam-methyl at four sites in the U. S. soybean market. *J Agric Food Chem* 45:3299-3307.
- Grover R, Wolt JD, Cessna AJ, Schiefer HB. 1997. Environmental fate of trifluralin. *Rev Environ Contam Toxicol* 153:1-64.
- Wolt JD, Smith JK, Sims GK. 1996. Products and kinetics of chloransulam-methyl aerobic soil metabolism. *J Agric Food Chem* 44:324-332.
- Erhardt-Zabik S, Wolt JD. 1996. Design and interpretation of anaerobic aquatic metabolism studies. *Weed Technol* 10:191-201.
- Schneider RC, Green RE, Wolt JD, Loh RKH, Schmitt DP, Sipes BS. 1995. 1,3-Dichloropropene distribution in soil when applied by drip irrigation or injection in pineapple culture. *Pesticide Sci* 43:97-105.
- Qian P, Wolt JD, Tyler DD. 1994. Soil solution composition as influenced by tillage and time of nitrogen fertilization. *Soil Sci* 158:141-149
- Wolt JD. 1993. Dynamics of nematicide distribution and degradation in soil subjected to long-term pineapple culture. *Acta Horticulturae.* 334:361-371.

- Qian P, Wolt JD. 1993. Drying and time of incubation effects on ionic activities and ion activity products of soil solution components. *J Nanjing Agric Univ* 17:52-58.
- Wolt, J. D., J. D. Schwake, F. R. Batzer, S. M. Brown, L. H. McKendry, J. R. Miller, G. A. Roth, M. A. Stanga, D. Portwood, and D. L. Holbrook. 1992. Anaerobic aquatic metabolism of flumetsulam [N-(2,6-difluoro-phenyl) -5-methyl(1,2,4)triazolo(1,5a) pyrimidine-2-sulfonamide]. *J Agric Food Chem* 40:2302-2308.
- O'Dell JD, Wolt JD, Jardine PM. 1992. Transport of imazethapyr in undisturbed soil columns as related to persistence in soil solution. *Soil Sci Soc Am J* 56:1711-1715.
- Vass AA, Bass WM, Wolt JD, Foss J., Ammons JT. 1992. Time since death determinations of human cadavers using soil solution. *J Forensic Sci.* 37:1236-1253.
- Wolt JD, Hue NV, Fox RL. 1991. Solution sulfate chemistry in three sulfur-retentive Hydrandepths from Hawaii. *Soil Sci Soc Am J* 56:89-95.
- Walker DS, O'Dell JD, Wolt JD, Rhodes GN Jr., Graveel JG. 1990. A tractor mounted sampler for obtaining large soil columns. *Weed Technol* 4:913-917.
- Hue NV, Fox RL, Wolt JD. 1990. Sulfur status of volcanic ash-derived soils in Hawaii. *Comm Soil Sci Plant Anal* 21-299:310.
- Qian P, Wolt JD. 1990. Effects of drying and time of incubation on the composition of displaced soil solution. *Soil Sci.* 149:367-374.
- Hardin JD, Howard DD, Wolt J. 1989. Critical soil phosphorus of a low-P loess-derived soil as affected by storage temperature. *Comm Soil Sci Plant Anal.* 20:1525-1543.
- Wolt JD. 1989. SOILSOLN: A computer program for teaching equilibria modeling of soil solution composition. *J Agron Educ* 18:40-42.
- Ononye AI, Graveel JG, Wolt JD. 1989. Kinetic studies of the reactions of benzidine with humic acid. *Soil Sci Soc Am J* 53:981-983.
- Ononye AI, Graveel JG, Wolt JD. 1989. Kinetic and spectroscopic investigations of the covalent binding of benzidine to quinones. *Environ Toxicol Chem* 8:303-308.
- Wolt JD, Rhodes GN Jr., Graveel JG, Glosauer EM, Amin MK, Church PL. 1989. Activity of imazaquin in soil solution as affected by incorporated wheat (*Triticum aestivum*) straw. *Weed Sci* 37:254-258.
- Haun GW, Wolt JD, Reynolds JH. 1988. Effects of stimulated acid rain on soil solution composition and orchardgrass seedling viability. *Soil Sci Soc Am J* 51:524-1046.
- Ononye AI, Graveel JG, Wolt JD. 1987. Direct determination of benzidine in unaltered soil solution by liquid chromatography. *Bull Environ Contam Toxicol* 39:524-632.
- Wolfe MH, Kelly JM, Wolt JD. 1987. Soil pH and extractable SO₄-S distribution as influenced by tree species and distance from the stem. *Soil Sci Soc Am J* 51:524-1046.
- Wolt JD, Graveel JG. 1986. A rapid routine method for obtaining soil solution using vacuum displacement. *Soil Sci Soc Am. J* 50:602-605.
- Sikora FJ, Wolt JD. 1986. Effect of cadmium-and zinc-treated sludge on yield and Cd-Zn uptake of corn. *J Environ Qual* 15:340-345.
- Wolt JD, Safley LM Jr., Lessman GM, Smith MC. 1984. Influence of time of injection of liquid swine waste on silage yield and nutrient content of corn. *Trans Amer Soc Agric Engin* 217:1135-1139.
- Lohr VI, Wang SH, Wolt JD. 1984. Physical and chemical characteristics of fresh and aged spent mushroom compost. *Hortscience* 19:681-683.
- Milne CG, Deyton DE, Wolt JD. 1984. The effect of calcium and boron applied through microjet irrigation on nutrition of smoothie apple-trees. *Hortscience* 19: 530-530.
- Mullins CA, Wolt JD. 1983. Effects of calcium and magnesium lime sources on yield, fruit quality and elemental uptake of tomato. *J Am Soc Hort Sci* 108:850-854.
- Wolt JD, Lietzke DA. 1982. The influence of anthropogenic sulfur inputs upon soil properties in

- the Copper Basin region of Tennessee. *Soil Sci Soc Am J* 46:651-656.
- Wolt JD. 1981. Sulfate retention by acid sulfate-polluted soils in the Copper Basin area of Tennessee. *Soil Sci Soc Am J* 45:283-121.
- Wolt JD, Adams F. 1979. The release of sulfate from soil-applied basaluminte and alunite. *Soil Sci Soc Am J* 45:384-387.
- Wolt JD, Adams F. 1979. Critical levels of soil and nutrient solution calcium for vegetative growth and fruit development of Florunner peanuts. *Soil Sci Soc Am J* 43:1159-1164.
- Book Chapters (12)*
- Wolt JD. 2017. Safety, security, and policy considerations for plant genome editing, pp. 215-241, In Donald P. Weeks and Bing Yang, editors: *Gene Editing in Plants*, Vol 149, PMBTS, UK: Academic Press.
- Sears MK and JD Wolt. 2012. Ecological considerations in biotechnology: Ecological concerns and environmental risks of transgenic crops. Ch 8. In JS Popp, M Matlock, NP Kemper, M Jahn (eds.) *The Role of Biotechnology in a Sustainable Food Supply*. Cambridge University Press. New York.
- Wolt JD, J Prasifka, and R Hellmich. 2008. Ecological safety assessment of insecticidal proteins introduced into biotech crops. p. 103-126. In B Hammond (ed.) *Safety of Food Proteins in Agricultural Biotechnology*. CRC Press. Boca Raton.
- Whitford F, Wolt J, Urban D, Mayes M. 2002. The evolution of pesticide regulations: The shift from benefits to risks. Ch. 1, pp. 1-7, In F. Whitford, *The Complete Book of Pesticide Management*. John Wiley & Sons, New York.
- Whitford F, J Kronenberg, C Lunchick, R Tomerlin, J Wolt, J Driver, KS Rao, G Acre, H Spencer, C Winter, and J Klaunig. 2002. Human health risk assessment: Evaluating potential effects of pesticides on humans. Ch. 2, pp. 8-115, In F. Whitford, *The Complete Book of Pesticide Management*. John Wiley & Sons, New York.
- Whitford F, M Mayes, D Urban, J Wolt, R Bennett, R Turco, M Jones, BK Miller, and L Bledsoe. 2002. Ecological risk assessment: Evaluating pesticide risks to nontarget species. Ch. 4, pp. 140-195, In F. Whitford, *The Complete Book of Pesticide Management*. John Wiley & Sons, New York.
- Whitford F, J Wolt, J Frankenberger, R Bennett, H Nelson, I van Wesenbeeck, R Turco, and S Brichford. 2002. Water quality risk assessment: Interactions between pesticides and the environment. Ch. 5, pp. 196-230, In F. Whitford, *The Complete Book of Pesticide Management*. John Wiley & Sons, New York.
- Whitford F, D Barber, A Breedlove, and J Wolt. 2002. Product development and registration: Blending scientific information into public policy decisions. Ch. 6, pp. 231-257, In F. Whitford, *The Complete Book of Pesticide Management*. John Wiley & Sons, New York.
- Whitford F, R Feinberg, T Neltner, J Wolt, R Tinsworth, and A-J Williams. 2002. Today's discussions, tomorrow's issues. Ch. 10, pp. 749-767, In F. Whitford, *The Complete Book of Pesticide Management*. John Wiley & Sons, New York.
- Batzer FR, JL Batzer, JR Peterson, and JD Wolt. 1997. Degradation of 1,3-dichloropropene in aerobic soils, Ch. 7, pp. 60-78, In J. N. Seiber, J. E. Woodrow, M. V. Yates, J. A. Knuteson, and S. R. Yates (eds.) *Fumigants: Environmental Fate, Exposure, and Analysis*. ACS Symposium Series 652, American Chemical Society, Washington. D. C.
- Wolt JD. 1993. Soil solution assessment of the soil availability of xenobiotics, pp. 71-85, In K. B. Hoddinott and T. A. O'Shay (eds) *The Application of Agricultural Analysis in Environmental Studies*, ASTM STP 1162. American Society of Testing and Materials. Philadelphia.
- Wolt JD. 1990. Effects of acid deposition on the chemical form and bioavailability of soil

aluminum and manganese. pp. 62-107. In A. A. Lucier and S. G. Hines (eds)
Mechanisms of Forest Response to Acidic Deposition. Springer-Verlag. New York.

Technical Reports and Semitechnical Publications (28)

- McHughen A, Bradford K, Carter N, Eriksson D, Grabau E, Hood E, Parrott W, Wolt J. 2018. Regulatory Barriers to the Development of Innovative Agricultural Biotechnology by Small Businesses and Universities. CAST Issue Paper. Council for Agricultural Sciences and Technology, Ames.
- NASEM. 2017. Preparing for Future Products of Biotechnology. Committee on Future Biotechnology Products and Opportunities to Enhance Capabilities of the Biotechnology Regulatory System, National Academies Press, Washington DC.
- Wolt JD. 2015. Opportunity and challenge of genome editing for crop improvement. ISB News Report, pp. 10-11. Information Systems for Biotechnology, Blacksburg, VA.
- Cook R, A Nail, A Vigart, A Trlica, B Hagarty, T Williams, J Wolt. 2015. Meta-analysis of enhanced efficiency fertilizers in corn systems in the Midwest, 4RM06 12/1/2015, International Plant Nutrition Institute, Peachtree Corners, GA.
- NRC. 2015. California's Risk-Assessment Process for Pesticides. National Research Council Committee to Review California's Risk-Assessment Process for Pesticides, National Academies Press, Washington DC.
- Wolt JD. 2012. The global challenge before us: How do we feed the hungry of the world? SoyConnection 20:1-3.
- Wolt JD. 2008. Understanding risk and safety assessment for genetically modified plants. Agribiotechinfo, July 2008, <http://agribiotech.info/more-details-on-specific-issues>
- Grealy RD, KJ Bradford, L Hall, R Hellmich, A Raybould, J Wolt, D Zilberman. 2007. Implications of Gene Flow in the Scale-up and Commercial Use of Biotechnology-derived Crops: Economic and Policy Considerations. CAST Issue Paper 37. Council for Agricultural Sciences and Technology, Ames.
- Christensen P, AS Goggi, M Westgate, J Wolt, M Misra. 2007. Seed biology. In: Introduction of Genetically Engineered Organisms - Draft Programmatic Environmental Impact Statement, July 2007, USDA APHIS Biotechnology Regulatory Services, Riverdale, MD. https://www.aphis.usda.gov/brs/pdf/complete_eis.pdf.
- Wolt JD, Chapotin SM. 2006. Does the ERA Process work for GE crops? ISB News Report, Sep 2006.
- Christensen P, Misra MK, Rai S, Shyy Y-Y, Wolt JD. 2005. Confined production processes for non-food corn. Biosafety Institute for Genetically Modified Agricultural Products, Iowa State University, Ames, IA.
- Oliver GR, Gibson JE, Wolt JD, Shanahan DM. 2000. Biotech foods: A closed and reopened case. Chemical Innovation. July, 2000, pp 12-19.
- Whitford F, Kronenburg J, Lunchick C, Driver D, Tomerlin R, Wolt J, Spencer H, Winter C, Whitmyre G. 1999. Pesticides and human health risk assessment. Purdue Pesticide Programs PPP-48.
- Whitford F, Urban D, Mayes M, Wolt J. 1997. Pesticides and ecological risk assessment. Purdue Pesticide Programs PPP-41.
- Whitford F, Wolt J, Nelson H, Barrett M, Birchford S, Turco R. 1995. Pesticides and water quality: Principles, policies, and programs. Purdue Pesticide Programs PPP-35.
- Qain P, Wolt JD. 1994. Drying and time of incubation effects on ionic activities and ion activity products of soil solution components. J. Nanjing Agric. Univ. 17:52-58.
- Reynolds JH, Wolt JD (eds). 1989. Simulated acid rain effects on cool-season forage grasses. Univ. Tenn. Agric. Exp. Sta. Bull. 670.

- Wolt JD, Krueger WA, Walker DA. 1989. Nitrogen and sulfur topdress fertilization of wheat. *Tenn. Farm Home Sci.* 151:12-16.
- Wolt JD, Ononye AI, O'Dell JD, Walker DS, Graveel JG, Rhodes GN Jr. 1988. Fate and transport of synthetic organics as influenced by diffuse vs channelized flow of solutes. *Res. Proj. Tech. Completion Rep. No. 119.* Tenn. Water Resour. Res. Center. Knoxville.
- Reynolds JH, Wolt JD. 1988. Yield of tall fescue varieties at Knoxville and Springfield. *Univ. Tenn. Agric. Exp. Sta. Res. Rep. No. 88-11.*
- Milne CG, Deyton DE, Wolt JD. 1988. The effects of calcium and boron on apple trees when applied through microproject irrigation. *Tenn. Farm Home Sci.* 146:19-23.
- Wolt JD, Mullins CA. 1988. Tomato and snap bean production on the Cumberland Plateau as influenced by calcium and magnesium lime sources. *Tenn. Farm Home Sci.* 145:10-13.
- Wolt JD. 1987. Effects of acidic deposition on the chemical form and bioavailability of soil aluminum and manganese. *National Council of the Paper Industry for Air and Stream Improvement Tech. Bull. No. 518.*
- Reynolds JH, Wolt JD. 1987. Long-term sulfur and nitrogen fertilization effects on plant and soil sulfur distribution in a tall fescue sod. *Tenn. Farm Home Sci.* 144:10-13.
- Wolt JD, Jared J, Walker D. 1986. Sulfur and magnesium fertilization for soybean. *Tenn. Farm Home Sci.* 138:20-23.
- Wolt JD. 1986. Using organic wastes in Tennessee. *BioCycle.* 27:24-25.
- Wolt JD. 1985. Utilization of organic wastes on agricultural soils of Tennessee. *Univ. Tenn. Agric. Exp. Sta. Bull.* 638.
- Bauman MB, Wolt JD. 1984. Corn response to sulfur in Tennessee. *Tenn. Farm Home Sci.* 131:5-7.
- Wolt JD, Adams F. 1978. Whatever happened to basic slag? *Auburn (AL) Agric. Exp. Sta. Highlights of Agricultural Research* 23:15.

Published Proceedings (15)

- Wolt JD. 2015. Can opportunities lost be regained? Reframing genetic engineering for crop and livestock improvement. In A Eaglesham, RWF Hardy (eds.) *NABC Report 26, New DNA-Editing Approaches: Methods, Applications and Policy for Agriculture.* October 8-9, 2014. North American Agricultural Biotechnology Council, Ithaca, NY.
- Wolt JD. 2007. Nontarget organism exposure and risk assessment. p. 22-26. In *Genetically Engineered Forest Trees: Identifying Priorities for Ecological Risk Assessment.* May 3-4, 2007, Raleigh, North Carolina, Institute of Forest Biotechnology.
- Wolt JD. 2006. Exposure assessment and mitigation practices to manage trait presence. p. 15-18. In *Development of Agricultural GMOs. Proceedings of the First International Forum of Agricultural GMOs.* September 20, 2006, Beijing, China Assoc. Agric. Sci. Soc.
- Wolt JD. 2006. Evaluating the consequences of environmental release of GE crops: Using principles of ecological risk assessment. *International Workshop on Environmental Risk Assessment/Biodiversity Assessment of Genetically Modified Organisms.* July 26, 2006, Tokyo, ILSI Japan.
- Hellmich RL, Prasifka JR, Wolt JD, Sears MK. 2006. A framework for evaluating possible non-target effects of transgenic corn in the United States: Standardizing laboratory tests. *IOBC/wprs Bull.* 29(5):71-75.
- Wolt JD, Hellmich RL, Prasifka JR, Sears MK. 2006. Global regulatory perspectives regarding transgenic crop risks to non-target insects: The case of Cry1F maize and butterflies. *IOBC/wprs Bull.* 29(5): 197-204.
- Westgate ME, Arritt R, Goggi AS, Wolt J. 2005. Coupling Lagrangian Stochastics and Large Eddy simulation to predict long distance dispersal of pollen. *Symposium for Agricultural*

- Biotechnology Risk Analysis Research USDA-APHIS Agricultural Risk Analysis Research Task Group. Nov 29 - Dec 1, 2005. APHIS, Riverdale, MD.
- Wolt JD. 2004. Stressor monitoring for PIPs. II-1-3. In EPA Symposium on Strategic Monitoring for Ecological Impacts from Crops with Plant Incorporated Protectants. Aug. 3-5, 2004, Washington, DC.
- Sims GK, Wolt JD, Lehmann RG. 1992. Bioavailability of sorbed pesticides and other xenobiotic molecules. pp. 159-164 In Proc. International Symp. on Environ. Aspects of Pesticide Microbiology. August 17-21, 1992. Sigtuna, Sweden.
- Reynolds JH, Wolt JD. 1989. Forage yield and quality of orchardgrass and tall fescue under simulated acid precipitation. In Proc. 16th Congress International des Herbages. October 4-11, 1989. Nice, France.
- Wolt JD. 1985. Displacement techniques for monitoring soil solution composition. In Proc. NWWA Conf. on Characterization and Monitoring of the Vadose (Unsaturated) Zone. Denver, CO. November 19-21, 1985. National Water Well Assoc. Worthington, OH.
- Wolt JD, Reynolds JH, Luu KT. 1985. Sensitivity of cool season forage grasses to simulated acid precipitation. In Proc. NAPAP Agriculture Effects Task Group F Peer Review. Brookhaven National Laboratory. Upton, NY, February 4-7, 1985. National Acid Precipitation Assessment Program. Washington, D. C.
- Wolt JD. 1982. Assessment of the residual effects of long-term spray disposal of an industrial sludge. pp. 622-633. In Proc. Fifth Annual Madison Conf. of Applied Research and Practice on Municipal and Industrial Waste. Univ. Wisconsin, Madison, WI.
- Safley LM Jr, Lessman GM, Wolt JD, Smith MC. 1980. Comparison of corn yields between broadcast and injected applications of swine-manure slurry. pp. 178-180. In Livestock waste: A renewable resource. Proc. 4th International Symp. on Livestock Wastes. ASAE. St. Joseph, MI.

Presentations (Abstracted) (92)

- JD Wolt*. Current Environmental Risk Assessment for Genetically Modified Organisms and Implications for Gene Edited Products (Keynote), 15th ISBR Symposium, Tarragona (4/2019).
- JD Wolt*. Problem Formulation Approach to Environmental Risk Assessments. 15th ISBR Symposium, Tarragona (4/2019).
- JD Wolt*. Current risk assessment approaches for environmental and food & feed safety. OECD Conference on Genome Editing Applications in Agriculture, Paris (6/2018).
- WK Rumbelha*, JD Wolt, A Correia, E Gilbreath, D Alexander, R. Whittington. A novel toxicology mentoring and training program targeting underrepresented undergraduate students in STEM disciplines. 2018 Society of Toxicology Annual Meetings, San Antonio, Texas (3/2018).
- JD Wolt*. Safety, security, and policy perspectives for genome-edited crops. 2017 Crop Science Society of America Annual Meeting, Tampa, Florida (10/2017).
- JD Wolt*. Regulatory aspects of genome-edited crops (Keynote). International Conference on Plant Genome Editing & Genome Engineering, Vienna. (7/2017).
- JD Wolt*. Preparing for Future Biotechnology Products – Perspectives on the National Academies of Sciences Report (Invited). 14th International Symposium on the Biosafety of Genetically Modified Organisms, Guadalajara. (6/2017).
- JD Wolt*, K Wang. Safety considerations for environmental release of CRISPR-edited plants, 2017 Society of Toxicology Annual Meetings, Baltimore, Maryland (3/2017)
- JD Wolt*, A Correia, E Gilbreath, D Alexander, P Leigh, WK Rumbelha. ToxMSDT: A learning resource for undergraduate training and mentoring, 2017 Society of Toxicology Annual

- Meetings, Baltimore, Maryland (3/2017)
- JD Wolt*, B Yang, K Wang, MH Spalding. Regulatory aspects of genome-edited crops, PS-6, World Congress on In Vitro Biology, 10-14 Jun 2016, San Diego, California, *In Vitro Cell Dev Biol – Animal* 52(Suppl1):S3 (6/2016).
- WK Rumbelha, A Correia, D Alexander, E Gilbreath, P Leigh, JD Wolt*. Toxicology mentoring and skills development training program, 2016 Society of Toxicology Annual Meetings, New Orleans, Louisiana (3/2016)
- JD Wolt*. New plant technologies to address climate change: Opportunities for biotechnology innovation and challenges for regulation, p 29, Abstracts 2nd Annual South Asia Biosafety Conference, Colombo, Sri Lanka (9/2014)
- A Turganbayeva*, TM Scott, JD Wolt. Assessing quality DNA extraction and detection for GMO compliance monitoring. Abstracts 13th IUPAC International Congress of Pesticide Chemistry, p 80, San Francisco, California (8/2014)
- JD Wolt*. Balancing the risks and benefits of food innovation: Regulatory and public perceptions, 1674. Entomology Society of America 60th Annual Meeting, Knoxville, Tennessee (11/2012)
- JE Delgado*, JD Wolt. Risk of fumonisin B1 toxicity in pigs: A comparative analysis of *Bacillus thuringiensis* (Bt) corn and non-Bt corn by using quantitative dietary exposure assessment modeling, 1490. Society of Toxicology 51st Annual Meeting, San Francisco, CA. Toxicological Sciences, 126 (Supplement 1): 321. (3/2012)
- JD Wolt*. The context for environmental risk assessment of GM crops. 12th International Symposium on the Biosafety of Genetically Modified Organisms. Saint Louis, MO (09/2012)
- AJ Kenny*, JD Wolt. Determining persistence and ecological implications of maize-expressed transgenic endo-1,4- β -D-glucanase in agricultural soils. The Fourth International Conference, Enzymes in the Environment: Activity, Ecology and Applications. Bad Nauheim, Germany (07/2011)
- RM Yennamalli*, JD Wolt, AJ Rader, TZ Sen. Sequence, structure and dynamics analysis of thermostability in endoglucanases. *Biophysical Journal* 100 (3, Supplement 1):536a (02/02/2011)
- H Tran*, J Wolt, E Yu. Characterization of the crystal of protein CTB and protein-environmental ligand complexes by using X-ray diffraction. T-331. American Crystallographic Association Annual Meeting, Chicago, IL (07/2010)
- RM Yennamalli*, JD Wolt, TZ Sen. Origins of thermophilicity in endoglucanases. *Biophysical Journal* 98 (3, Supplement 1):455a (01/2010)
- JD Wolt*. Risk and safety paradigms for genetically modified crops. National Seminar on Genetically Modified Crops: Status, Issues and Awareness, Jalgaon, India (1/2009)
- JD Wolt*. Quantitative risk assessment for genetically modified crops. National Seminar on Genetically Modified Crops: Status, Issues and Awareness, Jalgaon, India (1/2009)
- JD Wolt*, T Sen, MA Tabatabai, H Tran. Experimental approaches for determining environmental fate of transgenic plant proteins. Entomological Society of America Annual Meeting, Reno NV (11/2008)
- L Rodriguez*, AL Carriquiry, AP Correia, S Hurd, H Jensen, A O'Connor, JD Wolt. Enabling graduate learning in risk analysis. Abstracts of the 54th Annual Conference, National Association of College Teachers of Agriculture (NACTA), Logan, UT (6/2008)
- JD Wolt*. Framework for environmental risk assessment of GM crops: Problem formulation as an essential first step. Convention on Biodiversity, COP 9 MOP 4, Bonn, Germany (5/2008)
- M Kim*, JD Wolt. Probabilistic exposure assessments for cadmium in various foods. Society for

- Risk Analysis. San Antonio TX (12/2007)
- JD Wolt*, S. Olin. Problem formulation for environmental risk assessment of genetically modified crops. Society for Risk Analysis. San Antonio TX (12/2007)
- H Kosaki*, J Wolt, JR Coats. Environmental studies on the fate of pharma proteins produced in transgenic corn. 232nd National Meeting, American Chemical Society. San Francisco, CA. (09/2006)
- JR Coats* K Prihoda, H Kosaki, JD Wolt. Environmental chemistry of gene products from GMO crops: Aquatic systems. 27th Annual Meeting, Society of Environmental Toxicology and Chemistry North America. Montreal, Quebec, Canada. (11/2006)
- H Kosaki*, JD Wolt, JR Coats. Environmental studies on the fate of pharma proteins produced in transgenic corn. 27th Annual Meeting, Society of Environmental Toxicology and Chemistry North America. Montreal, Quebec, Canada. (11/2006)
- J Romeis*, D Bartsch, F Bigler, M. Candolfi, MMC Gielkens, SE Hartley, RL Hellmich, JE Huesing, PC Jepson, R Layton, H Quemada, A Raybould, RI Rose, J Schiemann, MK Sears, AM Shelton, J Sweet, Z Vaituzis, JD Wolt. Moving through the tiered and methodological framework for non-target arthropod risk assessment of transgenic insecticidal crops. 9th International Symposium on the Biosafety of Genetically Modified Organisms. Jeju Island, South Korea. (09/2006)
- DE Herzmann*, J Wolt, R Arritt, M Westgate, S Goggi. Modeling out crossing probabilities for maize in Iowa. Annual Meetings Agronomy Society of America. Indianapolis, IN. (11/2006)
- JD Wolt*. Exposure assessment and mitigation practices to manage trait presence. Chinese Academy of Sciences First International Forum on Agricultural GMOs. Beijing, China. (09/2006)
- JD Wolt*. Establishing an environmental risk assessment paradigm for genetically modified organisms. Annual Meeting, Society for Risk Analysis. Baltimore, MD. (12/2006)
- JD Wolt*. Confinement Systems Analysis. BIGMAP Symposium. Iowa State University. (04/2005)
- JD Wolt*. Global regulatory perspectives regarding transgenic crop risks to non-target insects: The case of Cry1F maize and butterflies. Western Palearctic Regional Section Workshop on Ecological Impact of GMOs. University of Lleida. (06/2005)
- JD Wolt*. Assessing the risks of biotech foods, at the symposium, Science-based Risk Assessment of Biotech Products. AACC International. Orlando FL. (09/2005)
- JD Wolt*. Quantitative approaches for nontarget organism risk assessment. Entomol. Soc. Amer., No. Cen. Br. Ann. Meeting. Kansas City, KS. (03/2004)
- L Tagliani*, I Gatti, R Herman, V Kariagin, G Legis, J Mattsson, A Phillips, P Song, J Wolt. WideStrike* cotton: Health and safety assessment of transgenic Cry1F/Cry1Ac Cotton. 8th International Symposium Biosafety GMOs. Montpellier France. (09/2004)
- JD Wolt*, Y-Y Shyy, P Christensen, KS Dormin, M Misra. Confinement of GMOs from the Perspective of quantitative exposure assessment. 8th International Symposium Biosafety GMOs. Montpellier France. (09/2004)
- JD Wolt*. Monitoring to verify confinement. USDA Workshop on Confinement of Genetically Engineered Crops During Field Testing, 13 – 15 Sep 2004. USDA-APHIS-BRS, Riverdale, MD. (9/2004)
- https://www.aphis.usda.gov/brs/confine_workshop/wolt_abstract.pdf
- JD Wolt*. Non-target insect testing within a risk assessment framework. Entomol. Soc. Amer. Ann. Meeting. Salt Lake City, UT. (11/2004)
- G Shan*, RA Herman, J. Wolt, D Weston, LM Mayer. Invertebrate digestive fluids for soil Bt protein extraction. Amer. Chem. Soc. Ann. Meeting. Philadelphia, PA. (08/2004)

- TD Landry*, M Bartels, L Chew, J Davis, N Frawley, SJ Stelman, J Thomas, J Wolt, S Young, DS Hanselman. Safety evaluation of an α -amylase enzyme preparation derived from the Archaeal genus *Thermococcales* as expressed in *Pseudomonas fluorescens* biovar I. Abstr. 42nd Annual Meeting of the Society of Toxicology, March 9-13, 2003, Salt Lake City, Utah. *Toxicological Sciences* 72 (1):1218 Suppl. S. (3/2003)
- JD Wolt*. Assessing the risks and benefits of genetically-modified plants. Annual Meeting of the Central Region, AOAC, 28-29 October 2002, Indianapolis, IN. (10/2002)
- J Wolt*, P Song, B Chen. 2002. Risk analysis paradigms for plant biotechnology. p. 281 In Proceedings of the 7th International Symposium on the Biosafety of Genetically Modified Organisms, October 10-16, 2002, Beijing, China. (10/2002)
- JD Wolt, T Meade*, PG Bystrak, RKD Peterson. Characterizing the impact of Bt corn pollen on non-target lepidopteran species using a risk assessment framework. Annual Meeting North Central Branch, Entomol. Soc. Amer., 25-28 Mar 2001, Ft. Collins, Colorado. (3/2001)
- JD Wolt*, T Meade, PG Bystrak, RKD Peterson. Characterizing the impact of Bt corn pollen on non-target Lepidopteran species using a risk assessment framework. Entomological Society of America Annual Meeting, December 3-6, 2000, Montreal, Quebec. (12/2000)
- JD Wolt*, T Meade, PG Bystrak, RKD Peterson. A quantitative approach for assessing transgenic pollen risk to non-target insects. ESF/AIGM Workshop on the Environmental Implications of Genetically Modified Plants with Insect Resistance Genes, 29 - 30 September 2000, Bern, Switzerland. (9/2000)
- JD Wolt*, M Russell, D Laskowski. Activities of the FIFRA Model Validation Task Force. ACS 217th National Meeting, Div. Agrochemicals Abstr. 21-25 Mar 99. Anaheim, CA. (3/1999)
- NN Poletika*, JD Wolt. The role of modeling for addressing FQPA issues. ACS 217th National Meeting, Div. Agrochemicals Abstr. 21-25 Mar 99. Anaheim, CA. (3/1999)
- IJ van Wesenbeeck*, JD Wolt, JA Knuteson, PL Havens. Role of simulation modeling in addressing the leaching potential of pesticides. ACS 216th National Meeting, Div. Agrochemicals Abstr. 23-27 Aug 98, Boston, MA. (8/1998)
- JD Wolt*, JM Zabik. Interpreting pesticide mobility for prospective ground water studies. American Geophysical Union, Abstr. 1998 Spring Meeting, 26-29 May 98, Boston, MA. (5/1998)
- JD Wolt*, HP Nelson, Jr., CB Cleveland, RD Jones. Using pesticide biodegradation information for regulatory decision-making. *Agron. Abstr.* 90:337. (11/1998)
- RF Turco*, JD Wolt. 1996. Uncoupling the fate of picloram in soil: Sorption and biodegradation. Abstr. Annual Meetings Am. Soc. Microbiol.
- JD Wolt*, PL Havens, DA Laskowski. 1995. Using laboratory-derived environmental fate data at the regional scale. *Agron. Abstr.* 87.
- JD Wolt*, JK Smith, GK Sims. 1995. Dynamics of cloransulam-methyl sorption and degradation. *Agron. Abstr.* 87.
- CT Johnston*, JD Wolt. 1995. Teaching soil chemistry from a home page. *Agron. Abstr.* 87.
- FR Batzer, JL Balcer, and JD Wolt*. 1995. Degradation of 1,3-dichloropropene in aerobic soils. ACS Div. Agrochemicals Abstr. 20-25 Aug 95. Chicago, IL.
- JD Wolt*. 1994. Dynamic expression of concurrent sorption-degradation of complex organic molecules in soil, sediments, and sludges. ACS Div. Environ. Chem. Extended Abstr. 21-26 Aug 94. Washington, D. C.
- S Erhardt-Zabik*, JD Wolt. 1994. Design and interpretation of anaerobic aquatic metabolism studies. *Weed Sci. Soc. Am. Abstr.* 34.
- JD Wolt*, JD Schwake, FR Batzer, SM Brown, LH McKendry, JR Miller, GA Roth, MA Stanga, D Portwood. 1992. Anaerobic aquatic degradation of flumetsulam. ACS Div. Environ.

- Chem. Extended Abstr. 5-10 Apr 92. San Francisco.
- AA Vass*, WM Bass, JD Wolt, JE Foss, JT Ammons. 1991. Time since death determinations of human cadavers: I. Utilizing volatile fatty acids in soil solution. 43rd Annual Meeting of the American Academy of Forensic Sciences.
- AA Vass*, WM Bass, JD Wolt, A Galloway. 1991. Time since death determinations of human cadavers: II. Utilizing inorganic indicators in soil solution. 43rd Annual Meeting of the American Academy of Forensic Sciences.
- JD Wolt*, NV Hue, RL Fox. 1990. Sulfate sorption-desorption characteristics of three sulfur-retentive Hydrandeps from Hawaii. *Agron. Abstr.* 82:214.
- AI Ononye*, JD Wolt, JG Graveel. 1989. A simplified procedure for measurement of Henry's law constant. 19th International Symposium on Environmental Analytical Chemistry. 22-24 May 1989. Jekyll Island, GA. U.S.E.P.A. Athens, GA.
- DS Walker, JD O'Dell*, JD Wolt, GN Rhodes, Jr, JG Graveel. 1989. A tractor-mounted sampler for obtaining large undisturbed soil columns for leaching studies. *Weed Sci. Soc. Am. Abstr.* 29.
- MK Amin*, GN Rhodes Jr, JD Wolt, JG Graveel. 1989. Wheat straw influence on soil reception of imazaquin. *Proc. South Weed Sci. Soc.* 42.
- JD O'Dell*, JD Wolt, JG Graveel, GN Rhodes, Jr. 1989. Transport of imazethapyr in undisturbed soil columns. *Abstr. Southern Assoc. Agric. Scientists.*
- AI Ononye*, JG Graveel, JD Wolt. 1988. Henry's law and the partitioning of naphthalene in soil. *Agron. Abstr.* 80:44.
- SD Hardin*, DD Howard, JD Wolt. 1989. Critical soil phosphorus of a low-P loess-derived soil as affected by storage temperature. *Agron. Abstr.* 80:238.
- DA Wysocki*, DD Tyler, JD Wolt. 1988. Loess properties and their relation to fragipan formation in West Tennessee. *Agron. Abstr.* 80:269.
- GN Rhode, Jr*, JD Wolt, JG Graveel. 1988. Effect of incorporated wheat residue on imazaquin in soil solution. *Proc. South. Weed Sci. Soc.* 41:354.
- AI Ononye*, JG Graveel, JD Wolt. 1987. A mechanistic study of the reactions of benzidine with humic acids and quinones. *Agron. Abstr.* 79:189.
- P Qian*, JD Wolt, DD Tyler. 1987. Soil solution composition as influenced by continuous no-till versus conventional tillage management. *Agron. Abstr.* 79:244.
- JH Reynolds*, JD Wolt. 1987. Forage yield and quality of tall fescue under simulated acid precipitation. *Agron. Abstr.* 79:120.
- J Wolt*. 1987. Agriculture and threats in groundwater. Pg. 12. In *Groundwater: Tennessee's Hidden Asset. Abstr. Conf.* May 6-7, 1987. Nashville, TN. Tennessee Dept. Health and Environment.
- J Wolt*. 1987. Soil Solution – A simple Basic program for teaching thermodynamic equilibria modeling. *Agron. Abstr.* 79:50.
- FL Allen*, HL Bhardwaj, JD Wolt, GM Lessman. 1987. Predicting yield responses of soybean cultivars to acid precipitation from measured yield responses of their ancestral lines exposed to simulated acid rain. National Atmospheric Deposition Program Technical Comm. Meeting Abstr. NADP/NTN Coordinator's Office. Fort Collins, CO.
- GW Haun*, JD Wolt, JH Reynolds. 1986. Soil solution composition as influenced by acid rainfall in a field environment. *Agron. Abstr.* 78:31.
- JH Reynolds*, JD Wolt, KT Luu. 1986. Forage quality and yield of orchard grass subjected to simulated acid precipitation. *Agron. Abstr.* 78:121.
- Ononye, A. I., J. G. Graveel, and J. D. Wolt. 1986. Determination of benzidine in displaced soil solution by HPLC. *Agron. Abstr.* 78:34.
- KT Luu, JD Wolt*, JH Reynolds. 1984. Effects of simulated acid precipitation on cool season

- forage grasses. Annual meetings, National Atmospheric Deposition Program.
- JD Wolt*, JG Graveel. 1984. A rapid routine method for obtaining soil solution using a combination of vacuum and displacement. *Agron. Abstr.* 76:181.
- JH Reynolds*, JD Wolt. 1984. Effects of long-term sulfur fertilization of a fescue sod on plant and soil sulfur distribution. *Agron. Abstr.* 76:218.
- KT Luu*, JD Wolt, JH Reynolds. 1984. Effects of simulated acid precipitation on germination and growth of cool season forage grasses. *Agron. Abstr.* 76:131.
- MH Wolfe*, JM Kelly, JD Wolt. 1983. The influence of stem flow on the distribution of soil sulfate-S around the base of two tree species. *Agron. Abstr.* 75:212.
- FJ Sikora*, JD Wolt. 1983. Effects of a cadmium- and zinc-amended sludge on yield and Cd-Zn uptake of corn. *Agron. Abstr.* 75:40.
- FJ Sikora*, JD Wolt, LM Safley, Jr. 1981. Yield, nitrogen assimilation, and zinc uptake of corn as affected by land-applied municipal sewage sludge. *Agron. Abstr.* 73:34.
- JD Wolt*, LM Safley, Jr. 1981. Residual effects of long-term spray field disposal of an industrial waste upon soil fertility and crop growth. *Agron. Abstr.* 73:37.
- JD Wolt*, DA Lietzke, B Nwadialo. 1980. Kaolinite, gibbsite, and K-mica distribution in soils subjected to acid sulfate weathering. *Agron. Abstr.* 72:215.
- JD Wolt*, F Adams. 1980. The effect of rooting and fruiting zone calcium upon Florunner peanuts. *Agron. Abstr.* 70:165.

Internal Reports and Submissions (50)

Dow AgroSciences

- Narva, K. E., Schnepf, H. E., Nygaard, L. R., and Wolt, J. D. 2003. Cry34/35 Protein Distribution and Familiarity. GH-C 5702.
- Gatti, I., Tagliani, L., and Wolt, J. 2003. B.t. Cry1Ac Insect-Resistant Cotton Event 3006-210-23 Premarket Biotechnology Notice (PBN).
- Gatti, I., Hunst, P., lamauti, M., Tagliani, L., Pellow, J., Storer, N., Wolt, J. 2003. Petition for Determination of Non-Regulated Status B.t. Cry1Ac Insect-Resistant Cotton Event 3006-210-23.
- Gatti, I., Tagliani, L., and Wolt, J. 2003. B.t. Cry1F Insect-Resistant Cotton Event 281-24-236 Premarket Biotechnology Notice (PBN).
- Gatti, I., Hunst, P., lamauti, M., Tagliani, L., Pellow, J., Storer, N., and Wolt, J. 2003. Petition for Determination of Non-Regulated Status B.t. Cry1F Insect-Resistant Cotton Event 281-24-23.
- Zabik, J., Wolt, J., Borgmeier, D., and Storer, N. 2003. Public Interest Document for Maize-Optimized Cry1F-Protected Corn Event TC6275. GH-C
- Hunst, P., Storer, N., Tagliani, L., Green, S., Korjagin, V., Gao, Y., Schafer, B., and Wolt, J. 2003. Mycogen Seeds c/o Dow AgroSciences LLC B.t. Cry1F Event TC6275 Pre-Market Biotechnology Notice (PBN).
- Hunst, P., Bing, J., Ernest, A., Sibley, R., Storer, N., Tagliani, L., Gao, Y., Korjagin, V., Wolt, J., and Zabik, J. 2003. Application for an Extension of the Determination of Nonregulated Status for B.t. Cry1F Insect-Resistant, Glufosinate-Tolerant Maize (00-136-01p): Maize Line 6275.
- lamauti, M., Canfield, D., Nead-Nylander, B., Pellow, J., Storer, N. and Wolt, J. 2003. Public Interest Document for Cry1F/Cry1Ac-Protected Cotton. GH-C 5635.
- Wolt, J. D. 2002. Ecological risk of cotton expressing Cry1F and Cry1Ac insecticidal crystalline proteins to non-target, beneficial, and endangered insects. GH-C 5569.
- Wolt, J. D., C. A. Conlan, and K. Majima. 2002. Risk of Herculex I corn pollen to Pale Grass Blue butterfly. GH-C 5328.

- Wolt, J. D., and C. Tiu. 2001. Fenarimol ecotoxicological risk assessment for use patterns in Peru. GH-C 5229.
- Wolt, J. D., and C. A. Conlin. 2001. Non-target exposure and risk assessment for marketing of 1507 maize in Europe. GH-C 5214.
- Mayes, M. A., and J. D. Wolt. 2001. Waiver request: Fish toxicity test to assess the potential effects of maize containing *Bacillus thuringiensis* var. aizawai (Bt) Cry1F Insecticidal Crystal Protein (ICP) on native fish. GH-C 5016
- Wolt, J. D. 2000. Non-target exposure and risk assessment for environmental dispersal of Event 176 maize pollen. GH-C 5028.
- Wolt, J. D. 2000. Non-target exposure and risk assessment for environmental dispersal of Cry1F maize pollen. GH-C 4988.
- Wolt, J. D., B. A. Houtman, J. A. Knuteson, J. M. Zabik, I. J. van Wesenbeeck, P. L. Havens, and N. N. Poletika. 1998. A regionally-based aggregate exposure assessment for 1,3-D. GH-C 4572.
- Rao, K. S., D. E. Barnekow, J. D. Wolt, W. T. Stott and L. L. Calhoun. 1998. Temporary tolerance petition for 1,3-dichloropropene residues in grapes. GH-C 4600.
- Wolt, J. D., and V. L. Patterson. 1997. Kinetics and Products of XR-350 Degradation in Soil. GH-C 4462.
- Wolt, J. D. 1997. Aquatic risk assessment for tebuthiuron use within Queensland. GH-C 4214.
- Wolt, J. D., T. E. Weglarz, J. Wright, P. L. Havens, and S. L. Ray. 1997. Triclopyr non-target plant risk assessment. GH-C 4357.
- Wolt, J.D. 1997. Ground and surface water exposure assessment for triclopyr. GH-C 4350.
- Shackleford, D. D. and J. D. Wolt. 1997. Aerobic degradation and sorption probe study of XR-228 in soils. GH-C 4313.
- Schnelle, K. D., R. F. Turco, and J. D. Wolt. 1996. Understanding triazolopyrimidine soil behavior: Modeled approaches for DE-564. MISL 92-6.
- Wolt, J. D. 1996. Environmental fate of ethalfluralin. GH-C 3846.
- Skinner, W. and J. D. Wolt. 1996. Laboratory volatility of [14C]-trifluralin formulated as an emulsifiable concentrate and as granules. ENV95132.
- Wolt, J. D. 1995. Anaerobic aquatic metabolism of [14C]triethylamine. GH-C 3729.
- Wolt, J. D., T. Esser, K. Shepler, and L. Ruzo. 1993. Aerobic aquatic metabolism of [14C]DE-498 in Canadian pond water and sediment: Results through one-year. GH-C 3167.
- Smith, J. K. and J. D. Wolt, and G. K. Sims. 1993. A kinetic study of XDE-565 sorption and degradation on sixteen soils. GH-C 3095.
- Wolt, J. D., J. K. Smith, and G. K. Sims. 1993. Aerobic metabolism of 14C-(Phenyl)- and - (Pyrimidine)-XDE-565 in two soils. GH-C 3081.
- Smith, J. K. and J. D. Wolt. 1993. A preliminary environmental fate profile and ecotoxicity assessment for XR-580. GH-C 2985.
- Wolt, J. D. and D. L. Holbrook. 1993. Preliminary evaluation of the environmental chemistry of NC-324 and NC-350. GH-C 3035.
- Wolt, J. D., K. Shepler, and L. Estigoy. 1993. Aged leaching of [14C]DE-498 in two field soils. GH-C 3024.
- Wolt, J. D., K. Shepler, and L. Estigoy. 1992. Aged leaching of [14C]DE-498 in a Canadian field soil. GH-C 2888.
- Wolt, J. D., T. Esser, K. Shepler, and L. Ruzo. 1992. Aerobic aquatic metabolism of [14C]DE-498 in Canadian pond water and sediment. GH-C 2887.
- Havens, P. L. and J. D. Wolt. 1992. Environmental fate summary and leaching assessment of methyl 2-(4-((3-fluoro-5-trifluoromethyl)-2-pyridinyl)oxy)phenoxy-propanoate: XRD-485-ME (R/S) and XRD-536-ME (R). GH-C 2685.

- Wolt, J. D., J. D. Schwake, F. R. Batzer, S. M. Brown, L. H. McKendry, J. R. Miller, G. A. Roth, and M. A. Stanga. 1991. Anaerobic aquatic metabolism of XRD-498 [N-(2,6-difluorophenyl)-5-methyl-(1,2,4)triazolo(1,5-a)pyrimidine-2-sulfonamide]. GH-C 2549.
- Wolt, J. D., K. Woodburn, S. Chari, K. Shepler, and L. O. Ruzo. 1991. Sunlight photodegradation of [¹⁴C-pyrimidine]XRD-498 in a buffered solution at pH 5 and 7. GH-C 2548.
- Wolt, J. D., K. Woodburn, S. Chari, K. Shepler, and L. O. Ruzo. 1991. Sunlight photodegradation of [¹⁴C-aniline]XRD-498 in a buffered solution at pH 5 and 7. GH-C 2534.
- Wolt, J. D., K. Shepler, S. Chari, P. McGovern, and L. O. Ruzo. 1991. Photodegradation of [¹⁴C-aniline]XRD-498 on soil by natural sunlight. GH-C 2521.
- Wolt, J. D., K. Shepler, and V. Yung. 1991. Photodegradation of [¹⁴C-pyrimidine]XRD-498 on viable soil by natural sunlight. GH-C 2520.
- Wolt, J. D., K. Shepler, S. Chari, P. McGovern, and L. O. Ruzo. 1991. Photodegradation of [¹⁴C-aniline]XRD-498 on soil by natural sunlight. GH-C 2521.
- Wolt, J. D. 1991. Comparative soil environmental chemistry of three sulfonamides: XRD-564, XRD-565, and XRD-498. GH-C 2450.
- Wolt, J. D., R. E. Green, D. P. Schmitt, and R. C. Schneider. 1991. Efficacy and environmental fate of 1,3-dichloropropene in Hawaiian pineapple fields when applied by drip-irrigation versus shank injection: Year 1 progress report. GH-C 2620.
- Wolt, J. D., R. W. Morgan, and K. B. Woodburn. 1991. Field dissipation of triclopyr in an eastern Canadian soil following application of Garlon 4 herbicide. GH-C 2672.
- Wolt, J. D., M. S. McDonald, and J. D. Schwake. 1991. Further consideration of the environmental chemistry of XR-566. GH-C 2666.
- Wolt, J. D. and F. R. Batzer. 1990. A probe study of the environmental soil chemistry of XRD-566. GH-C 2304.
- Wolt, J. D. 1990. Soil solution chemistry: A diagnostic tool for assessment of soil environmental fate and efficacy. GH-C 2336.
- Wolt, J. D., P. A. Goodwin, T. S. Lardie, and D. L. Stanley. 1990. Enantiomer inversion of 2-(4-((3-fluoro-5-trifluoromethyl)-2-pyridinyl)oxy) phenoxypropanoic acid: XRD-485(R/S) inversion in soil. GH-C 2406.
- Wolt, J. D. 1989. Comparative environmental soil chemistry of XRD-498, Scepter, and Pursuit. GH-C 2273.

External Grants and Contracts Awarded (\$2,850,903 since 2004)

- Identifying Gaps in Public Trust and Governance Recommendations for Gene Edited Foods, USDA-NIFA-AFRI, **C Bain**, T Selfa, M Dahlstrom, D Peters, C Wolf, J Wolt, 1/18/2018 to 12/31/2020. \$494,513.
- A Data-Driven Approach to CRISPR Design for Reduced Off-Target Activity in Plant Genome Editing, USDA-NIFA-BRAG, **K Wang**, JD Wolt, DG Sashital, C Lawrence-Dill, 10/1/2016 to 9/30/2019, \$465,000
- Toxicology Mentoring and Skills Development Training Program, NIH-R25-IPERT, **WK Rumblei**, JD Wolt, A Correia, D Alexander, E Gilbreath, P Leigh, 3/1/2016 to 2/28/2017, \$700,772
- Meta-analysis of Enhanced Efficiency Fertilizers in Corn Systems in the Midwest, International Plant Nutrition Institute, **R Cook**, J Wolt, A Trlica, 2/1/2014 to 1/31/2015, \$30,500.
- Bolashak Presidential Scholarship Program Host Support, Republic of Kazakhstan, **J Wolt**, 9/1/2013 to 9/1/2014, \$21,950.

Subagreement for Building Functional Biosafety Systems, International Food Policy Institute, **M Misra**, A Harries, J Wolt, J Cortes, J Aketch, H Hurd, 10/1/2010 to 9/30/2012, \$268,204.
Scientific Exchanges for China: Agricultural Biotechnology Regulation and Policy Opportunities at Iowa State University, USDA-FAS, **J Wolt**, D Bjelland, 8/21/2009 to 9/30/2010, \$43,749.
Environmental Fate and Effects Assessment for a Genetically Engineered Biofeedstock Crop, USDA-NIFA, **J Wolt**, M Tabatabai, T Sen, M Sticklen, 9/1/2008 to 8/31/2011, \$207,556.
Evaluating Food Safety of GM Crops - Opportunities for India Borlaug Fellow at Iowa State University, USDA-FAS, **J Wolt**, D Bjelland, 1/31/2008 to 12/31/2008, \$24,156.
A Pilot to Explore GRAS Status Determination of Foods from Nutritionally Modified GM Crops, Pioneer Hi-Bred International, Inc., **J Wolt**, 10/1/2007 to 10/1/2008, \$15,435.
Enabling Graduate Learning in Risk Analysis with Emphasis on Food, Agriculture and Veterinary Medicine, USDA Higher Education Challenge, **J Wolt**, H Hurd, H Jensen, A Carriquiry, A O'Connor, L Rodriguez, 9/1/2006 to 8/31/2008, \$146,813.
Technical Training: Environmental Safety and Biotechnology Risk Communication, Iowa Farm Bureau, **D Acker**, J Wolt, 1/1/2006 to 12/31/2006, \$41,895.
Coupling Lagrangian Stochastics and Large Eddy Simulation to Predict Long Distance Dispersal of Pollen USDA Biotechnology Risk Assessment Grants, **M Westgate**, R Arritt, A Goggi, J Wolt, 9/1/2005 to 8/31/2007, \$390,360.

Internal Support (\$246,522 since 2004)

Sorghum Gene Flow, Western Kenya (travel support), Department of Agronomy, 6/23/2009, \$7,500.
Fumonisin Fate in Corn: Implications for Swine Health (diversity student support), Food Safety Consortium, 1/8/2006, \$51,102.
Biological Safety Cabinet. IFFS Affiliate Faculty Research Supplement Request, JD Wolt, GP Munkvold, S Goggi, Institute for Food, Safety and Security, 2007, \$8,000.
570X Distance Learning, Brenton Center, 1/31/2007 to 7/31/2009, \$6,000.
Biopharma Corn, Plant Sciences Institute, 7/1/2005, \$83,920.
Project start-up, Plant Sciences Institute, 2/1/2004, \$90,000.