L. JASON KRUTZ
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Cleveland, MS 38732
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EDUCATION

2000-2004 Texas A&M University; major, Agronomy; Ph.D. 2004

1996-2000 University of Arkansas; major, Agronomy; M.S. 2000

1992-1996 University of Arkansas; major, Agronomy; B.S. 1996

RESEARCH

Research Soil Scientist, *United States Department of Agriculture, Agricultural Research Service, Crop Production Systems Research Unit*, 5/2004 to present. As the environmental CRIS leader my responsibilities include conceiving, developing, and implementing research focused on abating agrochemical and sediment transport in Mississippi Delta row-cropping systems. Attaining research objectives requires use of simulated and natural rainfall experiments ranging from micro-plot to field scale, various radiological methods, modeling, and competency in LC/PDA/MS/Fluorescence/β-RAM and GC/MS/MS techniques.

Graduate Research Assistant, *Department of Soil and Crop Sciences, Texas A&M University*, 1/2000 to 5/2004. Research centered on the fate and transport of herbicide and herbicide metabolites in vegetated filter strips. Data demonstrated that 1) sorption of pesticides to vegetated filter strip constituents is a crucial retention mechanism for organic compounds transported in the dissolved phase of surface runoff; 2) the potential for subsequent transport of pesticides once retained by vegetated filter strips is reduced relative to adjacent cultivated soil due to enhanced sorption and degradation in the former; and 3) vegetated filter strips are a viable best management practice for protecting surface water quality. Major Advisor: Dr. Scott A. Senseman.

Graduate Research Assistant, *Department of Crop, Soil, and Environmental Sciences, University of Arkansas*, 1/1996 to 1/2000. Research focused on phytoremediation of pyrene contaminated soil and verified that Bermudagrass expedites the reclamation of pyrene contaminated soil by enhancing pyrene degrader numbers and activity in the rhizosphere. Major Advisor: Dr. Craig A. Beyrouty.

TEACHING

Guest Lecturer, Environmental Fate of Herbicides, Mississippi State University, Department of Plant and Soil Sciences, 2008 to present

Introductory Soil Science Laboratory Instructor, Texas A&M University, Department of Agronomy, Fall 2002

Introductory Soil Science Drill Instructor, University of Arkansas, Department of Crop, Soil, and Environmental Sciences, Fall 1999

Introductory Soil Science Laboratory Instructor, University of Arkansas, Department of Crop, Soil, and Environmental Sciences, Fall 1998

SERVICE

National and Regional Organizations

Section Chair, Soil and Environmental Aspects, Weed Science Society of America Annual Meeting, Hawaii, 2012

Co-organizer of Symposium entitled "Advances in regulations and methods for measuring herbicide soil residues" at the Weed Science Society of America and Society Range Management Joint National Meeting, Denver, Colorado 2010

Chair, Environmental Quality Control Committee, Weed Science Society of America, 2008 through 2011

Co-Chair, Poster Session, Weed Science Society of America Annual Meeting, Boulder, CO, 2010

Public Sector Representative, Mississippi Weed Science Society Board of Directors, Class of 2010

Steering Committee, Third Interagency Conference on Research in the Watersheds: Estes Park, CO, 2008

Section Chair, Soil and Environmental Aspects, Weed Science Society of America Annual Meeting, Chicago, IL, 2008

Section Chair, Soil and Environmental Aspects of Weed Science, Southern Weed Science Society Annual Meeting, Jacksonville, FL, 2008

Member, Environmental Quality Control Committee, Weed Science Society of America Annual Meeting, 2006 to present

Interim Chair, Environmental Quality Control Committee, Weed Science Society of America Annual Meeting, New York, NY, 2006

Periodically requested to review manuscripts for *Journal of Environmental Quality*, *Agronomy Journal*, *Journal of Agricultural and Food Chemistry*, *Journal of Chromatography A*, *Pest Management Science*, *Weed Science*, *Weed Technology*, *Environmental Geochemistry and Health*, *Agriculture Ecosystems and Environment*, *Journal of Environmental Management*, *Toxicological and Environmental Chemistry*, *Soil Biology and Biochemistry*, *Contaminant*

hydrology, *Current Microbiology*, *Agroforestry Systems*, *Science of the Total Environment*, and *Australian Journal of Soil Research*

Location Radiation Protection Officer

United States Department of Agriculture, Agricultural Research Service, Mid South Area, Jamie Whitten Delta States Research Center, 2010

Adjunct Faculty

Assistant Professor, Mississippi State University, Department of Plant and Soil Sciences, 2008 to present

Assistant Professor, University of Arkansas, Department of Crop, Soil, and Environmental Sciences, 2008 to present

Graduate Committees

Ph.D.

Brandon Fast, University of Florida, 2008 to 2010

M.S.

Shelton Clerk, Mississippi Valley State University, 2010 to present
Jennifer Corbin, Mississippi State University, 2010 to present
Paxton Fitts, Mississippi State University, 2010 to present
Nathan Walker, University of Arkansas, 2008 to 2009
Kamalesh Thanappan, Mississippi Valley State University, 2004 to 2005

Visiting Scientists

International

Dr. Ronaldir Knoblauch, Epargi-Santa Catarina State University, Santa Catarina, Brazil, 2010
Dr. Cesare Accinelli, Research Scientist, University of Bologna, Italy, 2007, 2008, and 2010

National

Dr. Mark Matocha, Texas A&M University, College Station, TX, 2006

MEMBERSHIP HONORARY ACADEMIC SOCIETIES

Gamma Sigma Delta
Sigma Xi
Phi Kappa Phi

MEMBERSHIP PROFESSIONAL SOCIETIES

Agrochemical Division, American Chemical Society
Environmental Chemistry Division, American Chemical Society
Soil Science Society of America
Weed Science Society of America
Southern Weed Science Society of America

Mississippi Weed Science Society

GRANTS PROCURED

1. Eubanks, T., J. Massey, **L.J. Krutz**, T. Koger and L. Pringle. Irrigation use and efficiency and the sustainability of soil and water resources in soybean production systems in Mississippi. $150,000. 4/2010-4/2013

2. Senseman, S.A. and **L.J. Krutz**. Effect of buffer strips on atrazine, metolachlor, and their metabolites in the dissolved phase of surface runoff. Novartis Crop Protection. $109,000. 5/2001-5/2003.

REFEREED PUBLICATIONS IN PROGRESS

1. Jablonowski, N.D., R. Martinazzo, G Hamacher, P. Zajkoska, **L.J. Krutz** and P. Burauel. 2011. Transfer of atrazine degradation capability to mineralize aged ^{14}C-labeled atrazine residues in soils. Biol. Fert. Soils.

2. **Krutz, L.J**., K.N. Reddy, R.M. Zablotowicz. 2011. Atrazine degrader numbers and activity in *s*-triazine adapted soil as related to selection pressure, crop history and rhizosphere. Pest Mngmt Sci.

3. **Krutz, L.J**. 2011. Quantifying Mid-South Glyphosate-Resistant Weed Seed in Surface Runoff: Laboratory and Technician Effects. Weed Sci.

4. Shaner, D.L. and **L.J. Krutz**. 2011. Bio-availability of atrazine in the presence of activated charcoal and biochar. Pest Mange. Sci.

5. Senseman, S.A., J. Bond and **L.J. Krutz**. 2011. Differences in water source pH alters efficacy among sulfonylurea herbicides but can be stabilized by buffering pH to 9. Weed Sci.

REFEREED PUBLICATIONS IN REVIEW

1. Weaver, M.A. R.M. Zablotowicz, **L.J. Krutz** and M.A. Locke. 2011. Microbial changes associated with development of a constructed wetland. J. Environ. Sci.

2. Reddy, K.N., Ding, W. R.M. Zablotowicz, S.J. Thomson, Y. Huang, and **L.J. Krutz**. 2011. Biological responses to glyphosate drift from aerial application in non-glyphosate-resistant cotton and soybean. J. Agric. Food Chem.

3. Webb, R.M.T., M.W. Sandstrom**, L.J. Krutz**, and D.L. Shaner. 2011. Simulation of branched serial first order decay of atrazine and metabolites in adapted and non-adapted soils. J. Environ. Qual.

REFEREED PUBLICATIONS

1. **Krutz, L.J**., M.A. Locke, R.W. Steinriede, Jr., K.N. Reddy, L. Libous-Bailey and I.C. Burke and. 2011. Water, sediment and metolachlor transport differences between wide- and narrow-row cotton production systems. J. Soil Water Cons. (Accepted 1/19/2011).

2. Zablotowicz, R.M., K.N. Reddy, **L.J. Krutz**, G.E. Gordon, R. Jackson, L.D. Price. 2011. Can leguminous cover crops replace nitrogen fertilization in Mississippi Delta cotton production systems? Int. J. Agron. (Accepted 1/12/2011).

3. *Fast, B.J*., J.A. Ferrell, G.E. MacDonald, B.A. Sellers, A.W. MacRae and **L.J. Krutz**. 2011. Aminopyralid soil residues affect vegetable crops in Florida. Weed Tech. (Accepted 11/1/2010).

4. *Fast, J.B*., J.A. Farrell, G.E. MacDonald and **L.J. Krutz**. 2010. Picloram and aminopyralid adsorption to soil and clay minerals. Weed Sci. 58:484-489.

5. Reddy, K.N., Ding, W. R.M. Zablotowicz, S.J. Thomson, Y. Huang, and **L.J. Krutz**. 2010. Biological responses to glyphosate drift from aerial application in non-glyphosate-resistant corn. Pest Manage. Sci. 66:1148-1154.

6. Bryson, C.T., **L.J. Krutz**, G. Ervin, K.N. Reddy and J.D. Byrd, Jr. 2010. Ecotype variability and edaphic characteristics for Cogongrass (*Imperata cylindrical*) populations in Mississippi. Invasive plant Sci. Manage. 3:199-207.

7. Zablotowicz, R.M., K.N. Reddy, M.A. Weaver, A. Mengistu, **L.J. Krutz**, R.E. Gordon and N. Bellaloui. 2010. Cover Crops, Tillage and Glyphosate Effects on Chemical and Biological Properties of a Lower Mississippi Delta Soil and Soybean Yield. Environ. Res. 4:3-4.

8. **Krutz, L.J.**, D.L. Shaner, R.M. Zablotowicz. 2010. Enhanced degradation and soil depth effects on the fate of atrazine and major metabolites in Colorado and Mississippi soils. J. Environ. Quality 39:1-9.

9. **Krutz, L.J.,** D.L. Shaner, M.A. Weaver, R.M.T. Webb, R.M. Zablotowicz, K.N. Reddy, Y. Huang and S.J. Thomson. 2010. Agronomic and environmental implications of enhanced *s*-triazine degradation. Pest Mange. Sci. 66:461-481.

10. Shaner, D.L., **L.J. Krutz**, W.B. Henry, B.D. Hanson, M.D. Poteet, and C.R. Rainbolt. 2010. Sugar cane soils exhibit enhanced atrazine degradation and are cross-adapted with other triazine herbicides. J. Am. Soc. Sugar Cane Technologists 30:1-10.

11. Zablotowicz, R.M., C. Accinelli, **L.J. Krutz** and K.N. Reddy. 2009. Soil depth and tillage effects on glyphosate degradation. J. Agric. Food Chem. 57:4867-4871.

12. **Krutz, L.J**., I.C. Burke, K.N. Reddy, R.M. Zablotowicz and A. J. Price. 2009. Enhanced atrazine degradation: Evidence for reduced residual weed control and a method to identify adapted soils and predict herbicide persistence. Weed Sci. 57:427-434.

13. Zablotowicz, R.M., **L.J. Krutz,** C. Accinelli and K.N. Reddy. 2009. Bromoxynil degradation in a Mississippi silt loam soil. Pest. Manage. Sci. 65:658-664.

14. **Krutz, L.J**., M.A. Locke and R.W. Steinriede, Jr. 2009. Interactions of tillage and cover crop on water, sediment, and pre-emergence herbicide loss in cotton: implications for the control of glyphosate-resistant weed biotypes. J. Environ. Qual. 38:1240-1247.

15. Zablotowicz, R.M., **L.J. Krutz**, M.A. Weaver, C. Accinelli and K.N. Reddy. 2008. Glufosinate and ammonium sulfate inhibit atrazine degradation in soil. Biol. Fertil. Soils. 45:19-26.

16. **Krutz, L.J.**, I.C. Burke, K.N. Reddy, and R.M. Zablotowicz. 2008. Evidence for cross-adaptation between *s*-triazine herbicides resulting in reduced efficacy under field conditions. Pest Manage. Sci. 64:1024-1030.

17. **Krutz, L.J**., D.L. Shaner, C. Accinelli, R.M. Zablotowicz, and W.B. Henry. 2008. Atrazine dissipation in *s*-triazine-adapted and non-adapted soil from Colorado and Mississippi: Implications of enhanced degradation on atrazine fate and transport parameters. J. Environ. Quality. 37:848-857.

18. Shaner, D.L., W.B. Henry, **L.J. Krutz**, and B. Hanson. 2007. Rapid assay for screening soil samples for enhanced atrazine degradation. Weed Sci. 55:528-535.

19. Zablotowicz, R.M, **L.J. Krutz**, K.N. Reddy, M.A. Weaver, C.H. Koger, and M.A. Locke. 2007. Rapid development of enhanced atrazine degradation in a Dundee silt loam under continuous corn and in rotation with cotton. J. Agric. Food Chem. 55:852-859.

20. **Krutz, L.J**., R.M. Zablotowicz, K.N. Reddy, C.H. Koger III, and M.A. Weaver. 2007. Enhanced degradation of atrazine under field conditions correlates with a loss of weed control in the glasshouse. Pest Manag. Sci. 63:23-31.

21. Weaver, M.A., **L.J., Krutz**, R.M. Zablotowicz, and K.N. Reddy. 2007. Effects of glyphosate on soil microbial communities and its mineralization in a Mississippi soil. Pest Manag. Sci. 63:388-393.

22. **Krutz, L.J**., C.H. Koger, M.A. Locke, and R.W. Steinriede. 2007. Reduced surface runoff losses of metolachlor in narrow-row compared to wide-row soybean. J. Environ. Qual. 36:1331-1337.

23. *Matocha, M.A.*, **L.J. Krutz**, S.A. Senseman, C.H. Koger, K.N. Reddy, and E.W. Palmer. 2006. Spray carrier pH effect on absorption and translocation of trifloxysulfuron in Palmer amaranth (*Amaranthus palmeri*) and Texasweed (*Caperonia palustris*). Weed Sci. 54:969-973.

24. *Matocha, M.A.*, **L.J. Krutz**, K.N. Reddy, S.A. Senseman, M.A. Locke, R.W. Steinriede, Jr., and E.W. Palmer. 2006. Foliar washoff potential and simulated surface runoff losses of trifloxysulfuron in cotton. J. Agric. Food Chem. 54:5498-5502.

25. Reddy, K.N., M.A. Locke, C.H. Koger, R.M. Zablotowicz, and **L.J. Krutz**. 2006. Cotton and corn rotation under reduced tillage management: Impacts on soil properties, weed control, yield, and net return. Weed Sci. 54:768-774.

26. **Krutz, L.J**., T.J. Gentry, S.A. Senseman, I.L. Pepper, and D.P. Tierney. 2006. Mineralization of atrazine, metolachlor, and their respective metabolites in vegetated filter strip and cultivated soil. Pest Manag. Sci. 62:505-514.

27. Koger, C.H., T.W. Walker, and **L.J. Krutz**. 2006. Response of three rice (*Oryza sativa*) cultivars to planting depth, pendimethalin application, and rainfall timing after herbicide application. Crop Prot. 25:684-689.

28. Zablotowicz, R.M., M.A. Locke**, L.J. Krutz**, R.N. Lerch, R.E. Lizotte, S.S. Knight, R.E. Gordon, and R.W. Steinriede. 2006. Influence of watershed system management on herbicide concentrations in Mississippi Delta oxbow lakes. Sci. Total Environ. 370:552-560.

29. Koger, C.H., D.L. Shaner, **L.J. Krutz**, T.W. Walker, N. Buehring, W.B. Henry, W.E. Thomas, and J.W. Wilcut. 2005. Rice (*Oryza sativa*) response to drift rates of glyphosate. Pest Manag. Sci. 61:1161-1167.

30. **Krutz, L.J**., S.A. Senseman, R.M. Zablotowicz, and M.A. Matocha. 2005. Reducing herbicide runoff from agricultural fields with vegetative filter strips: A Review. Weed Sci. 53:353-367.

31. **Krutz, L.J**., C.A. Beyrouty, T.J. Gentry, D.C. Wolf, and C.M. Reynolds. 2005. Selective enrichment of a pyrene degrader population and enhanced pyrene degradation in Bermudagrass rhizosphere soil. Biol. Fert. Soils. 41:359-364.

32. **Krutz, L.J**., S.A. Senseman, K.J. McInnes, D.W. Hoffman, and D.P. Tierney. 2004. Adsorption and desorption of metolachlor and metolachlor metabolites in vegetative filter strip and cultivated soil. J. Environ. Qual. 33:939-945.

33. Lee, D.J., S.A. Senseman, J.H. Obar, J.M. Chandler, **L.J. Krutz**, G.N. McCauley, and Y.I. Kuk. 2004. Soil characteristics and water potential effects on plant-available clomazone in rice. Weed Sci. 52:310-318.

34. **Krutz, L.J**., S.A. Senseman, M.C. Dozier, D.W. Hoffman, and D.P. Tierney. 2004. Infiltration and adsorption of dissolved metolachlor, metolachlor oxanilic acid, and metolachlor ethanesulfonic acid by buffalograss (*Buchloe dactyloides*) filter strips. Weed Sci. 52:166-171**.**

35. **Krutz, L.J**., S.A. Senseman, M.C. Dozier, D.W. Hoffman, and D.P. Tierney. 2003. Infiltration and adsorption of dissolved atrazine and atrazine metabolites in buffalograss filter strips. J. Environ. Qual. 32:2319-2324.

36. **Krutz, L.J**., S.A. Senseman, and R.L. Haney. 2003. Effect of Roundup Ultra on atrazine degradation in soil. Biol. Fert. Soils 38:115-118.

37. **Krutz, L.J**., S.A. Senseman, and A.S. Sciumbato. 2003. Solid-phase microextraction for herbicide determination in environmental samples. J. Chrom. A. 999:103-121.

38. Lee, D.J., S.A. Senseman, A.S. Sciumbato, S.C. Jung, and **L.J. Krutz**. 2003. The effect of titanium dioxide alumina beads on the photocatalytic degradation of picloram in water. J. Agric. Food Chem. 51:2659-2664.

39. **Krutz, L.J**., S.A. Senseman, K.J. McInnes, D.A. Zuberer, and D.P. Tierney. 2003. Adsorption and desorption of atrazine, desethylatrazine, deisopropylatrazine, and hydroxyatrazine in vegetated filter strip and cultivated soil. J. Agric. Food Chem. 51:7379-7384.

40. Haney, R.L., S.A. Senseman, **L.J. Krutz**, and F.M. Hons. 2002. Soil carbon and nitrogen mineralization as affected by atrazine and glyphosate. Biol. Fert. Soils 35:35-40.

BOOK CHAPTERS

1. Zablotowicz, R.M., K.N. Reddy, M.A. Weaver, A. Mengistu, **L.J. Krutz**, R.E. Gordon and N. Bellaloui. 2009. Cover Crops, Tillage and Glyphosate Effects on Chemical and Biological Properties of a Lower Mississippi Delta Soil and Soybean Yield. In: Tomas H. Latos, ed. Cover Crops and Crop Yields, Nova Publishers, Inc. Huntington, NY; Chapter 10, pp. 265-289.

OTHER PUBLICATIONS

1. **Krutz, L.J**., K.N. Reddy, M.A. Locke, R.W. Steinreide, Jr. and L. Libious-Bailey. Agronomic and environmental benefits of converting from wide- to narrow-row production systems. *Agricultural Research Service, Crop Production Systems Research Unit, Fact Sheet* 2011-1 (In progress).

2. **Krutz, L.J.** and D.L. Shaner. 2010. Enhanced *s*-triazine degradation and implications for sugar cane weed control. *Sugar Journal* 1:12.

3. **Krutz, L.J**., D.L. Shaner, K.N. Reddy and R.M. Zablotowicz. 2010. Predicting where enhanced atrazine degradation will occur based on soil pH and herbicide use history.

Agricultural Research Service, Crop Production Systems Research Unit, Fact Sheet 2010-1.

4. **Krutz, L.J**., M.A. Locke, R.W. Steinriede. 2010. Cover crops reduce water, sediment, and herbicide loss in acreage requiring tillage to control glyphosate-resistant weed biotypes. *Agricultural Research Service, Crop Production Systems Research Unit, Fact Sheet* 2010-2.

5. **Krutz, L.J.,** D.L. Shaner, K.N. Reddy, R.M. Zablotowicz and L. Wiles. 2008. Enhanced atrazine degradation and implications for weed control in corn. *Agricultural Research Service, Southern Weed Science Research Unit, Fact Sheet* 2008-01.

6. **Krutz, L.J.** 2004. Reducing the transport of herbicides and herbicide metabolites from agricultural application zones with vegetated filter strips. Texas A&M University. 170 pp. (Dissertation)

7. **Krutz, L.J**. 2000. Rhizosphere influenced pyrene dissipation. University of Arkansas. 51 pp. (Thesis)

8. White, P.M., **L.J. Krutz**, W.D. Kirkpatrick, D.C. Wolf, C.M. Reynolds, and G.J. Thoma. 1999. Phytoremediation of petroleum contaminated soil. p. 392-406 *In* K.L. Sublette (ed.) Sixth International Petroleum Environmental Conference. 16-18 Nov. 1999. Houston, TX. The Integrated Petroleum Environmental Consortium, Tulsa, OK.

PRESENTATIONS

Invited

1. "Agronomic and Environmental Implications of Enhanced s-Triazine degradation", Department of Soil and Crop Sciences, University of Arkansas, Fayetteville, Arkansas, 2010

2. "Agronomic and Environmental Implications of Enhanced *s*-Triazine degradation", International Union of Pure and Applied Chemists, 12th International Congress on the Chemistry of Crop Protection, Melbourne, Australia, 2010

3. "Environmental implications of enhanced *s*-triazine degradation" United States Department of Agriculture, Agricultural Research Service, Water Quality Showcase, St. Louis, MO, 2010

4. "Enhanced atrazine degradation: Agronomic and Environmental Significance" Crop College, Mississippi State University, 2010

5. "Impact of enhanced metabolism of soil applied herbicides on modeling, leaching, and efficacy", Symposium entitled "Advances in Regulations and Methods for Measuring Herbicide soil Residues." Weed Science Society of America and Society of Range Management Joint National Meeting, Denver, Colorado 2010

6. "Environmental research overview", American Chemical Society, Delta State University, 2009

7. "Impact of tillage practices on herbicide runoff", Cotton Short Course, Mississippi State University, 2008

8. "Herbicide fate and transport as a function of edge-of-field best management practices: An overview" Mississippi State University, 2008

9. "Environmental research overview", Mississippi Valley State University, 2008

10. "What to expect from a new USDA-ARS position and ways to advance in the future", Southern Weed Science Society Annual Meeting, Nashville, TN, 2007

11. "Enhanced atrazine degradation in the Mississippi delta: Development, maintenance, and impact on weed control", Mississippi Weed Science Society Annual Meeting, Stoneville, MS, 2007

12. "Herbicide fate under Mid-South cropping systems and conservation practices". Mississippi Delta Water Research Review, Stoneville, MS, 2006

13. "Doubt cast on value of subsequent atrazine applications". April 24th issue of *Delta Farm Press* magazine, 2006

14. "Microbial activity and atrazine degradation in soil from mixtures of glyphosatge and atrazine", American Phytopathological Society Conference, Charolette, NC, 2003

15. "Effectiveness of Buffalograss [*Buchloe dactyloides* (Nutt. Engelm)] filter strips in removing dissolved atrazine and atrazine metabolites from surface runoff" at the Division of Agrochemicals at the American Chemical Society National Conference, 2003

16. "Effect of Glyphosate on Atrazine Degradation in Soil" Division of Agrochemicals, American Chemical Society National Conference, Orlando, FL, 2002.

Published Abstracts

1. D.L. Shaner, R. Boydston, **L.J. Krutz**, H. Collins. 2011. Comparison of biochar with activated charcoal on soil activity of atrazine and metribuzin. Proc. Weed Sci. Soc. Vol. 51.

2. **Krutz, L.J.,** R.M. Zablotowicz and K.N. Reddy. 2011. Enhanced atrazine degradation: Degrader numbers and activity four years after last *s*-triazine application. Proc. Weed Sci. Soc. Vol. 51.

3. **Krutz, L.J**., M.A. Locke, R.W. Steinried Jr., K.N. Reddy, L. Libious-Bailey and I.C. Burke. 2011. Water, sediment, and metolachlor transport in wide- and narrow-row cotton. Proc. Southern Weed Sci. Soc. Vol 64.
4. Jablonowski, N.D., C. Accinelli, R. Martinazzo, G. Hamacher, **L.J. Krutz** and P. Burauel. 2010. Transfer of degradation potential from different atrazine adapted soils mineralizing long-term aged ^{14}C-labeled atrazine residues. SETAC

5. Reddy, K.N., W. Ding, L.J. Krutz, R.M. Zablotowicz, S.J. Thomson and Y. Huang. 2010. Biological responses to glyphosate drift from aerial application in corn, cotton, and soybean. IUPAC.

6. Fast, B.J., J.A. Ferrell, G.E. MacDonald and **L.J. Krutz**. 2010. Environmental fate of aminopyralid. Proc. Southern Weed Sci. Soc. Vol. 63.

7. Ding, W., K.N. Reddy, R.M. Zablotowicz, S.J. Thompson, Y. Huang and **L.J. Krutz**. 2010. Biological responses to glyphosate drift from aerial application in non-glyphosate-resistant corn. Proc. Southern Weed Sci. Soc. Vol. 63.

8. Jablonowski, N.D., C. Accinelli, R. Martinazzo, G. Hamacher, **L.J. Krutz** and P. Burauel. 2010. Transfer of degradation potential from different atrazine adapted soils mineralizing long-term aged ^{14}C-labeled atrazine residues. Chemicals in the Environment Annual Conference.

9. **Krutz, L.J.,** D.L. Shaner, M.A. Weaver, R.M.T. Webb, R.M. Zablotowicz, K.N. Reddy. 2010. Agronomic and environmental implications of enhanced *s*-triazine degradation. Proc. Southern Weed Sci. Soc. Vol. 63.

10. **Krutz, L.J.**, D.L. Shaner, M.A. Weaver, R.W.T. Webb, R.M. Zablotowicz, and K.N. Reddy. 2010. Enhanced atrazine degradation: Implications on efficacy and environmental modeling. Proc. Weed Sci. Soc. Vol. 50.

11. Senseman, S.A., E. Camargo and **L.J. Krutz**. 2010. The value of pesticide Kd's. How valuable is it? Proc. Weed Sci. Soc. Vol. 50.

12. Bryson, C.T., **L.J. Krutz**, G.Ervin, K.N. Reddy and J.D. Byrd, Jr. 2010. Edaphic and morphological characteristics that support Cogongrass (*Imperata cylindrical*) populations in Mississippi Proc. Weed Sci. Soc. Vol. 50.

13. Zablotowicz, R.M., K.N. Reddy, C. Abel, **L.J. Krutz**, L. Price and R.E. Gordon. 2009. Can leguminous cover crops replace fertilizer nitrogen in Mississippi Delta cotton production? In SSSA Abstracts [CD-ROM], Madison, WI.

14. Rainbolt, C.M., B.D. Hanson, A. Shrestha, D.L. Shaner, and **L.J. Krutz**. 2009. Simazine degradation rates in California central valley soils with varying simazine use histories. Proc. Western Soc. of Weed Sci.. 62:15.

15. Shaner, D., B. Henry, M. Poteet, C. Rainbolt, B. Hanson, **J. Krutz**. 2008. Comparative rates of metabolism of atrazine, propazine, ametryn and metribuzin in 19 soils with different histories of triazine use. 5th international weed science congress, Vancouver, BC, Canada.

16. Zablotowicz, R.M., C. Accinelli, **L.J. Krutz** and M.A. Weaver. 2008. Atrazine degrading bacteria isolated from a Mississippi Delta soil expressing potential for accelerated atrazine degradation. 5th international weed science congress, Vancouver, BC, Canada.

17. **Krutz, L.J**., D.L. Shaner, C. Accinelli, R.M. Zablotowicz, and W.B. Henry. 2008. Historical atrazine transport parameters are altered in soils exhibiting enhanced degradation. Proc. Weed Sci. Soc. Vol. 48.

18. Zablotowicz, R.M., C. Accinelli, **L.J. Krutz**, and K.N. Reddy. 2008. Comparative mineralization and fate of glyphosate and bromoxynil in a Dundee silt loam under different tillage management. Proc. Weed Sci. Soc. Vol. 48.

19. **Krutz, L.J**., M.A. Locke and R.W. Steinriede, JR. 2008. Surface runoff losses of cotton herbicides: effects of tillage and cover crops. Proc Southern Weed Sci. Soc. Vol. 61.

20. **Krutz, L.J**., C.H. Koger, M.A. Locke, and R.W. Steinriede, Jr. 2007. Foliar washoff and surface runoff losses of metolachlor in wide- and narrow-row soybean. Proc. South. Weed Sci. Soc. Vol. 60.

21. **Krutz, L.J**., R.M. Zablotowicz, I.C. Burke, K.N. Reddy, C.H. Koger, and M.A. Weaver. 2007. Enhanced atrazine degradation in the Mississippi Delta: Development, maintenance, and impact on weed control. Proc. South. Weed Sci. Soc. Vol. 60.

22. Shaner, D.L., W.B. Henry, B.D. Hanson, and **L.J. Krutz**. 2007. A rapid assay to detect enhanced atrazine degradation in soil. Proc. Weed Sci. Soc. Vol. 47.

23. Zablotowicz, R.M., **L.J. Krutz**, M.A. Weaver, and K.N. Reddy. 2007. Enhanced degradation of atrazine in Mississippi Delta soil: Effects of glufosinate and ammonium sulfate on atrazine mineralization. Proc. Weed Sci. Soc. Vol. 47.

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metolachlor oxanilic acid in vegetated filter strip and cultivated soil. Proc. Weed Sci. Soc. Vol. 44.

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44. **Krutz L.J**. and S.A. Senseman. 2002. Effectiveness of buffalograss (*Buchloe dactyloides* Nutt. Engelm) filter strips in removing dissolved atrazine and metabolites from surface runoff. Proc. South. Weed Sci. Soc. 55:184.

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HONORS AND AWARDS RECEIVED

United States Department of Agriculture, Agriculture Research Service, Mid South Area Early Career Research Scientist, 2008

Researcher of the Year, Mississippi Weed Science Society, 2007

Tom Slick Graduate Research Fellowship, Texas A&M University, 2004

Environmental Chemistry Graduate Student Award, American Chemical Society, Division of Environmental Chemistry, 2003

Young Scientists' Research Recognition Award, American Chemical Society, Division of Agrochemicals, 2003

Graduate Research Award, Department of Soil and Crop Sciences, Texas A&M University, 2003

Travel Award, American Chemical Society, Division of Agrochemicals, 2002 through 2004

Texas Water Research Institute Award, Mills Scholarship, Texas A&M University, 2002

2nd place Poster Competition, Southern Weed Science Society Conference, Houston, TX, 2002

Morris G. Merkle Scholarship, Department of Soil and Crop Sciences, 2001 through 2003

1st place Poster Competition, Texas Plant Protection Association Conference, College Station, TX, 2001 through 2002

Outstanding Masters Student, Department of Crop, Soil, and Environmental Sciences, University of Arkansas, 1999

Dale A. and Wilhelmina S. Hinkle Scholarship, 1996