

STEVEN K. MICKELSON
Associate Professor
Agricultural and Biosystems Engineering

EDUCATION

<u>Degree</u>	<u>Institution</u>	<u>Major Field of Study</u>	<u>Dates of Degrees</u>
Ph.D.	Iowa State University	Agricultural Engineering	12/1991
M.S.	Iowa State University	Agricultural Engineering	5/1984
B.S.	Iowa State University	Agricultural Engineering	5/1982

PROFESSIONAL EXPERIENCE

<u>Employer</u>	<u>Position</u>	<u>Nature of Position</u>	<u>Location</u>	<u>Dates of Employment</u>
Iowa State U.	Assoc. Professor	Teaching/Research	Ames, IA	1998-Present
Iowa State U.	Assist. Professor	Teaching/Research	Ames, IA	1984-1992, 1993-1998
Iowa State U.	Adj. Instructor	Teaching/Advising	Ames, IA	1982-1984
Iowa State U.	Graduate Assist.	Research	Ames, IA	1989, 1990 (summer)
Iowa State U.	Research Assist.	Research	Ames, IA	1981-1982, 1988 (summer)
Sundstrand	Systems Engineer	CAD/Programming	Ames, IA	1984

PROFESSIONAL AND SCIENTIFIC ORGANIZATIONS

American Society of Agricultural Engineers
American Society of Engineering Educators
Alpha Epsilon Honors Society
Gamma Sigma Delta

RECENT HONORS AND AWARDS

Program Chair, BAE Division of ASEE (2004)
ISU Outstanding Innovation Award in Learning Communities (2004)
E-Week Faculty of the Year Award (2004)
ASAE Superior Paper Award (2004)
Superior Engineering Advisor Award, College of Engineering (2004)
John D. Shingleton Award, Midwest Association of Colleges and Employers (2004)
ISU Miller Faculty Fellowship (2004)
Program Chair, BAE Division of ASEE (2003)
Best Paper Award, BAE Division of ASEE (2003)
Midwest Association of Colleges and Employers - John D. Shingleton Award -Best Application of Research (2003)
Secretary, BAE Division of ASEE (2002)
Best Session: Presenter, ASEE Conference for Industry and Education Collaboration (2002)
Wakonse Fellow (2002)
Outstanding Faculty Member – ISU Greek Community (2002)
Engineers Week - Professor of the Semester (2002)
VEISHEA Outstanding Faculty of the Year (2002)
VEISHEA Outstanding Engineering Professor (2002)
Engineering Student Council Leadership Award (2002)

Superior Engineering Teacher Award (2001)
Outstanding Innovations Award, Learning Community Institute (2001)
Division of Student Affairs Award (2001)
General Chair of the ASAE Agricultural Machinery Conference (1998-1999)
VEISHEA Outstanding Engineering Professor – (1999)
Outstanding Professor of ABE – Engineering Student Council (2002, 2000, 1999, 1994, 1990)
ASAE/SME Agricultural Machinery Conference General Chair, 1999

RECENT RESEARCH AND EDUCATIONAL PUBLICATIONS

Steward, Brian L., **S.K. Mickelson** and T.J. Brumm, 2005. Continuous Engineering Course Improvement through Synergistic use of Multiple Assessment. *Int. J. Engng Ed.* 21(2): 277-287.

Steward, Brian L., **S.K. Mickelson** and T.J. Brumm, 2004. Formative and Summative Assessment Techniques for Continuous Agricultural Technology Classroom Improvement, *NACTA Journal* 48(2): 33-41.

Arora, K., **S.K. Mickelson**, and J.L. Baker. 2003. Effectiveness of Vegetated Buffer Strips in Reducing Pesticide Transport in Simulated Runoff. *Transactions of the ASAE* Vol. 46(3):635-644.

Boyd, P. M., J.L. Baker, **S.K. Mickelson**, and S.I. Ahmed. 2003. Pesticide transport with surface runoff and subsurface drainage through a vegetative filter strip. *Transactions of the ASAE* 46(3):675-684.

Mickelson, S.K., J.L. Baker, and I.S. Ahmed. 2003. Vegetative Filter Strips for Reducing Atrazine and Sediment Runoff Transport. *Journal of Soil and Water Conservation* 58(6):359-367.

Hanneman, L.R., Steven K. Mickelson, Loni K. Pringnitz, and Michael Lehman. 2002. Constituent-Created, Competency-Based, ABET-Aligned Assessment Tools for the Engineering Experiential Education Workplace. *Proceeding of The 2nd National Conference on Outcomes Assessment for Program Improvement*, October 31 - November 1, 2002, Pittsburgh, PA.

S.I. Ahmed, **S.K. Mickelson**, J. Russell, W. Powers, R. Schultz, and J. Kovar. 2002. Impact of different grazing systems and vegetative filter strips on sediment and nutrient losses with surface runoff. *ASAE/CIGR Annual International Meeting*, July 29-31, Hyatt Regency, Chicago, IL.

Haan, M., J. Russell, W. Powers, **S.K. Mickelson**, J. Kovar, and R. Schultz. 2002. Effects of grazing management on sediment and phosphorus runoff. *Proceedings/Reports of the American Forage and Grassland Council* 11:38.

Mickelson, S. K., S. Anton, J. L. Baker, and S. I. Ahmed . 2001. Subsurface Herbicide Application with the Modified John Deere Mulch Master. *Transactions of the ASAE* 44(4): 807-812

Mickelson, S.K., P. Boyd, J.L. Baker, and S.I. Ahmed. 2001. Tillage and herbicide incorporation effects on residue cover, runoff, erosion, and herbicide loss. *Soil and Tillage Research* 60:55-66.

Lee, K-H., T.M. Isenhardt, R.C. Schultz, and **S.K. Mickelson**. 2000. Multispecies Riparian Buffers Trap Sediment and Nutrients during Rainfall Simulations. *Journal of Environmental Quality* 29:1200-1205.

Baker, J.L., S.K. Mickelson, K. Arora, and A.K. Misra. 2000. The potential of vegetated filter strips to reduce pesticide transport. Chapter 18, (p. 272-285). In: *Agrochemical Fate and*

Movement: Perspective and Scale of Study, Thomas R. Steinheimer, Lisa J. Ross, and Terry D. Spittler, eds., ACS Symposium Series 751, American Chemical Society, Washington, D.C.

Lee, K-H., T.M. Isenhardt, R.C. Schultz, and **S.K. Mickelson**. 1999. Nutrient and sediment removal by switchgrass and cool-season grass filter strips in Central Iowa, USA. *Agroforestry Systems* 44:121-132.

Mickelson, S.K., J.L. Baker, S.W. Melvin, R.S. Fawcett, and D.P. Tierney. 1998. Effects of soil incorporation and setbacks on herbicide runoff loss from a tile-outlet terraced field. *Journal of Soil and Water Conservation* 53(1): 18-25.

Baker, J.L., S.K. Mickelson, K. Arora, and A.K. Misra. 1998. The potential of vegetated filter strips to reduce pesticide transport. Chapter 4, In: *Agrochemical Movement: Perspective and Scale*, Am. Chem. Soc., Wash., D.C.

Arora, K., **S.K. Mickelson**, J.L. Baker, D.P. Tierney, and C.J. Peters. 1996. Herbicide retention by vegetative buffer strips from runoff under natural rainfall. *Trans. ASAE* 39:2155-2162.

Misra, A.K., J.L. Baker, **S.K. Mickelson**, and H. Shang. 1996. Contributing area and concentration effects on herbicide removal by vegetative buffer strips. *Trans. ASAE* 39:2105-2115.