

## Peter J. Lammers

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### Education

Ph.D., May 2009, Animal Science and Sustainable Agriculture  
Iowa State University, Ames, IA, 50011  
Dissertation: Energy and nutrient cycling in swine production systems

Master of Science, May 2006, Animal Nutrition and Sustainable Agriculture  
Iowa State University, Ames, IA, 50011  
Thesis: Gestation housing for sows: A comparison of individual gestation stalls within confinement facilities and group pens in deep-bedded hoop barns

Bachelor of Science, Summa Cum Laude, May 2001  
University of Wisconsin-River Falls; River Falls, WI 54022

### Competitive Research Grant Awards

February 2008

Leopold Center for Sustainable Agriculture Ecology Initiative Grant: \$20,330  
*Energy use and nutrient cycling in pig production systems*

March 2007

Sustainable Agriculture Research and Education Grant: \$9,969  
*Energy use and nutrient cycling in pig production systems*

### Teaching Experience

Fall 2008

Instructor, Livestock Production for Niche Markets (AnS 312X, 3 credits)  
This is a new, experimental course I developed at the request of the department.  
I have been responsible for all aspects of course planning, presentation, and management.

Fall 2003 to Present

Teaching Assistant, Advanced Swine Management (An S 425, 3 credits; Dr. Honeyman)  
I assist with daily class and laboratory activities, and guest lecture as needed.

Fall 2005, 2006, 2007

Teaching Assistant, Animal Nutrition (An S 319, 3 credits; Dr. Bregendahl)  
I led a weekly laboratory section and presented lectures on nutrition and environmental management.

July 2004–December 2004

Course collaborator, Agro-ecosystems Analysis (SUSAG 509, 3 credits; Dr. Salvador)  
Teaching Assistant, Working with Animals (An S 114L, 1 credit; Dr. Skaar)

### Selected Awards and Activities

2009 Thocam Sutherland Graduate Award for Excellence  
2009 National Pork Board Education Award  
2008 Department of Animal Science Graduate Student Excellence Award  
2003–present Association of Graduate Animal Scientists, Vice President, Treasurer, Fundraiser Chair

## Research Publications

### Peer-reviewed Journal Articles

**Lammers, P. J.**, S. L. Carlson, G. A. Zdorkowski, and M. S. Honeyman. 2009. Reducing food insecurity in developing countries through meat production: the potential of the guinea pig (*Cavia porcellus*). *Renewable Agriculture and Food Systems*, 24: 155–162.

**Lammers, P. J.**, B. J. Kerr, T. E. Weber, K. Bregendahl, S. M. Lonergan, K. J. Prusa, D. U. Ahn, W. C. Stoffegen, and M. S. Honeyman. 2008. Growth performance, carcass characteristics, meat quality, and tissue histology of growing pigs fed crude glycerol-supplemented diets. *Journal of Animal Science*. 86:2962–2970.

**Lammers, P. J.**, B. J. Kerr, T. E. Weber, W. A. Dozier III, M. T. Kidd, K. Bregendahl, and M. S. Honeyman. 2008. Digestible and metabolizable energy of crude glycerol for growing pigs. *Journal of Animal Science*. 86:602–608.

**Lammers, P. J.**, B. J. Kerr, M. S. Honeyman, K. Stalder, W. A. Dozier III, T. E. Weber, M. T. Kidd, and K. Bregendahl. 2008. Nitrogen-corrected apparent metabolizable energy value of crude glycerol for laying hens. *Journal of Poultry Science*. 87:104–107.

**Lammers, P. J.**, M. S. Honeyman, J. B. Kliebenstein, J. D. Harmon. 2008. Impact of gestation housing system on weaned pig production cost. *Applied Engineering in Agriculture*. 25:245–249.

**Lammers, P. J.**, M. S. Honeyman, J. W. Mabry, and J. D. Harmon. 2007. Performance of gestating sows in bedded hoop barns and confinement stalls. *Journal of Animal Science*. 85: 1311–1317.

Honeyman, M. S., R. S. Pirog, G. H. Huber, **P. J. Lammers**, and J. R. Hermann. 2006. The United States pork niche market phenomenon. *Journal of Animal Science*. 84: 2269–2275.

### Accepted Manuscripts

**Lammers, P. J.**, M. S. Honeyman, J. D. Harmon, J. B. Kliebenstein, and M. J. Helmers. 2009. Construction resource use of different types and scales of pig production facilities. *Journal of Applied Agricultural Engineering*.

### On-going Manuscripts

**Lammers, P. J.**, M. S. Honeyman, J. D. Harmon, J. B. Kliebenstein, and M. J. Helmers. Energy and carbon inventory of swine production facilities. *Submitted to Agricultural Systems*.

**Lammers, P. J.** and M. S. Honeyman. Feeding swine in the bioenergy era: An Iowa perspective. *Submitted to Journal of Animal Science*.

**Lammers, P. J.**, M. S. Honeyman, M. D. Kenealy, J. D. Harmon, J. B. Kliebenstein, and M. J. Helmers. Energy use for pig diet preparation. *To be submitted to Journal of Animal Science*.

**Lammers, P. J.**, M. S. Honeyman, M. D. Kenealy, J. D. Harmon, J. B. Kliebenstein, and M. J. Helmers. Potential cycling of resources within different pig production systems. *To be submitted to Journal of Animal Science*.

Peer-reviewed Publications

**Lammers, P. J.,** D. R. Stender, M. S. Honeyman. 2007 Niche Pork Production Handbook. IPIC NPP2007. Iowa Pork Industry Center, Iowa State University Extension. Available online at <http://www.ipic.iastate.edu/publications.html>

**Lammers, P. J.,** M. S. Honeyman, and J. D. Harmon. 2004. Alternative Systems for Farrowing in Cold Weather. Agricultural Engineers Digest 47. MidWest Plan Service.

Abstracts

**Lammers, P. J.,** A. Johnson, S. Lonergan, J. Harmon, R. Baker, S. Shouse, W. Busby, and M. S. Honeyman. 2008. Hoop buildings vs. conventional feedlots for steers: Effects on growth and performance. Journal of Animal Science. 86(E-Suppl. 2): 329. (Abstr.).

**Lammers, P. J.,** B. J. Kerr, T. E. Weber, K. Bregendahl, S. M. Lonergan, K. J. Prusa, D. U. Ahn, W. C. Stoffregen, W. A. Dozier III, and M. S. Honeyman. 2008. Objective and sensory measurements of meat quality and fatty acid profile of *longissimus* intramuscular lipid from pigs fed crude glycerol. Journal of Animal Science. 86(E-Suppl. 2): 317. (Abstr.).

Baker, R., A. Johnson, S. Lonergan, M. Honeyman, K. Stalder, L. Sadler, and **P. J. Lammers.** 2008. A comparison of behavior of steers raised in hoop buildings. Journal of Animal Science. 86(E-Suppl. 2): 595. (Abstr.).

**Lammers P. J.,** M. S. Honeyman, B. J. Kerr, T. E. Weber, K. Bregendahl. 2007. Growth performance and carcass characteristics of growing pigs fed crude glycerol. Journal of Animal Science. 85(Suppl. 1): 508. (Abstr.).

Bregendahl K., **P. J. Lammers,** B. J. Kerr, M. S. Honeyman, K. J. Stalder, T. E. Weber, W. A. Dozier III, K. R. Dion, M. R. Neal, and S. M. Mottet. 2007. Metabolizable energy value of crude glycerin for laying hens. Journal of Animal Science. 85(Suppl. 1): 68. (Abstr.).

**Lammers, P. J.** and M. S. Honeyman. 2006. Impact of gestation housing system on weaned pig production costs. Journal of Animal Science. 84(Suppl. 1):269. (Abstr.)

**Lammers, P. J.** and M. S. Honeyman. 2006. Sow and litter performance in individual crate and group bedded hoop barn gestation systems. Journal of Animal Science. 84(Suppl. 2):84. (Abstr.)

Extension and Instructional Publications

**Lammers, P. J.** and M. S. Honeyman. 2009. Teaching livestock production for niche markets. ASL-R2476. Animal Industry Report. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.,** M. S. Honeyman, J. D. Harmon, J. B. Kliebenstein, and M. J. Helmers. 2009. Construction resource use of different types and scales of swine production facilities. ASL-R2471. Animal Industry Report. ISU Ext. Serv. Ames, IA

**Lammers, P. J.** and M.S. Honeyman. 2009. Minimizing starch consumption by finishing pigs: demonstrated and theoretical approaches. ASL-R2461. Animal Industry Report. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.** and M.S. Honeyman. 2009. Corn use as livestock feed in Iowa. ASL-R2462. Animal Industry Report. ISU Ext. Serv. Ames, IA

Letsche, N., **P. J. Lammers**, and M. S. Honeyman. 2009. Bulk density of bio-fuel byproducts. ASL-R2459. Animal Industry Report. ISU Ext. Serv. Ames, IA.

Honeyman, M. S., **P. J. Lammers**, and B. J. Kerr. 2009. Bioenergy co-products as swine feed ingredients: combining ddgs and glycerol. ASL-R2460. Animal Industry Report. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, and M. S. Honeyman. 2008. Energy balance in pig production systems: a progress report. ASL-R2354. Animal Industry Report AS-654. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, K. Bregendahl, S. M. Lonergan, D. U. Ahn, M. S. Honeyman, K. J. Prusa, B. J. Kerr, T. E. Weber, W. C. Stoffregen. 2008. Carcass characteristics, meat quality, and tissue histology of growing pigs fed crude glycerol-supplemented diets. ASL-R2356. Animal Industry Report AS-654. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, M. S. Honeyman, K. Bregendahl, B. J. Kerr, T. E. Weber. 2008. Growth performance of growing pigs fed crude glycerol-supplemented diets. ASL-R2357. Animal Industry Report AS-654. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, and M. S. Honeyman. The niche pork production handbook. ASL-R2361. Animal Industry Report AS-654. ISU Ext. Serv. Ames, IA.

Bregendahl, K., **P. J. Lammers**, B. J. Kerr, M. S. Honeyman, W. A. Dozier III, T. E. Webber, M. T. Kidd. 2008. Metabolizable energy value of crude glycerol for laying hens. ASL-R2333. Animal Industry Report AS-654. ISU Ext. Serv. Ames, IA.

Honeyman, M. S., **P. J. Lammers**, S. Hoyer. 2007. Feeding bioenergy coproducts to swine: Distiller's dried grains with solubles. Iowa Pork Industry Center 11a. ISU Ext. Serv. Ames IA.

Kerr, B. J., M. S. Honeyman, **P. J. Lammers**, and S. Hoyer. Feeding bioenergy coproducts to swine: Crude glycerol. Iowa Pork Industry Center 11b. ISU Ext. Serv. Ames IA.

**Lammers, P. J.**, M. S. Honeyman, K. Bregendahl, B. J. Kerr, T. E. Weber, W. A. Dozier III, M. T. Kidd. 2007. Energy value of crude glycerol fed to pigs. ASL-R2225. Animal Industry Report AS-653, ISU Ext. Serv. Ames IA.

**Lammers, P. J.**, M. S. Honeyman, J. B. Kliebenstein, and J. D. Harmon. 2007. Impact of gestation housing system on weaned pig production cost. ASL-R2233. Animal Industry Report AS-653, ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, M. S. Honeyman, J. W. Mabry, and J. D. Harmon. 2007. Sow and litter performance for individual crate and group hoop barn gestation housing systems: project summary. ASL-R2236. Animal Industry Report AS-653, ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, M. S. Honeyman, J. W. Mabry, and J. D. Harmon. 2006. Sow and litter performance for individual crate and group hoop barn gestation housing systems: progress report III. ASL-R2171. Animal Industry Report AS-652, ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, and M. S. Honeyman. 2005. Alternative Winter Farrowing Demonstration Project: Two Year Summary. ASL-R2028. Animal Industry Report ASL-651. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, and M. S. Honeyman. 2005. Farrow-to-Finish in a Hoop Barn: a Demonstration. ASL-R2029. Animal Industry Report AS-651. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, and M. S. Honeyman. 2004. On-farm Examples of Alternative Winter Farrowing Systems. ASL-R1967. Animal Industry Report AS650. ISU Ext. Serv. Ames, IA.

**Lammers, P. J.**, and M. S. Honeyman. 2004. Alternative Winter Farrowing Demonstration Project: A Progress Report. ASL-R1968. Animal Industry Report AS650. ISU Ext. Serv. Ames, IA.