

KENNETH D CASEY

Texas A&M AgriLife Research
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PRESENT POSITION

Associate Professor of Air Quality Engineering

EDUCATION

- University of Kentucky (2005) – Ph.D. (Biosystems and Agricultural Engineering)
- Clemson University (1992) - Master of Science (Agricultural Engineering)
- University of Southern Queensland, Aust (1986) - Graduate Diploma in Information Processing
- University of Southern Queensland, Aust (1981) - Bachelor of Engineering (Agricultural)

WORK EXPERIENCE

- Associate Professor, Texas A&M AgriLife Research, Amarillo, TX (2011 - current)
- Assistant Professor, Texas AgriLife Research, Amarillo, TX (2005-2011)
- Research Specialist, University of Kentucky, Lexington, KY (2001-2005)
- Principal Environmental Engineer, Department of Primary Industries, Toowoomba, QLD (1995 - 2001)
- Agricultural Engineer, Department of Primary Industries, Toowoomba, QLD (1981 – 1995)

AREAS OF INTEREST

Air quality. Gaseous and odor emissions from livestock operations. Environmental impact of livestock waste management systems. Wastewater treatment. Nutrient management. Livestock manure management and processing (physical, chemical and biological processes).

MAIN RESEARCH PROJECTS

- Greenhouse gas emissions from beef cattle feedyards
- Water usage at High Plains dairies.

PROFESSIONAL REGISTRATION

Registered Professional Engineer in Queensland. Registration No: 2922.

PROFESSIONAL SOCIETIES

- American Society of Agricultural Engineers
- American Society Heating, Refrigerating and Air-Conditioning Engineers
- Air & Waste Management Association
- Clean Air Society of Australia and New Zealand
- American Society of Agronomy
- Soil Science Society of America

INTERNATIONAL EXPERIENCE

Worked for 20 years in Australia (1981 – 2001) as an extension engineer on functional design of agricultural buildings and environmental control, then as a research engineer and program leader on environmental management issues for intensive animal production systems.

PUBLICATIONS LIST (Selected)

PEER REVIEWED JOURNALS

- Todd, R. W., N. A. Cole, R. G. Hagevoort, K. D. Casey, B. W. Auvermann. 2015. Ammonia losses and nitrogen partitioning at southern High Plains open lot dairy. *Atmospheric Environment* 110: 75-83.
- Parker, D., J. Ham, B. Woodbury, L. Cai, M. Spiehs, M. Rhoades, S. Trabue, K. Casey, R. Todd, and A. Cole. 2013. Standardization of Flux Chamber and Wind Tunnel Flux Measurements for Quantifying Emissions from Area Sources. *Atmospheric Environment* 66: 72-83.
- Todd, R. W., N. A. Cole, D. B. Parker, M. B. Rhoades, and K. D. Casey. 2011. Daily, monthly, seasonal and annual ammonia emissions from southern High Plains cattle feedyards. *Journal of Environmental Quality* 40(4): 1090-1095.
- Todd, R. W., N. A. Cole, K. D. Casey, R. Hagevoort, and B. W. Auvermann. 2011. Methane emissions from southern High Plains dairy wastewater lagoons in summer. *Animal Feed Science and Technology*. 166-167: 575-580.
- Casey, K. D., R. S. Gates, R. C. Shores, E. D. Thoma, and D. B. Harris. 2010. Ammonia emissions from a U.S. broiler house – Comparison of concurrent measurements using three different technologies. *Journal of the Air & Waste Management Association* 60(8): 939-948.
- Parker, D. B., E. A. Caraway, M. B. Rhoades, N. A. Cole, R. W. Todd, and K. D. Casey. 2010. Effect of wind tunnel air velocity on VOC flux from standard solutions and CAFO manure/wastewater. *Transactions of the ASABE* 53(3): 831-845.
- Casey, K. D., R. S. Gates, E. F. Wheeler, H. Xin, Y. Liang, A. J. Pescatore, and M. J. Ford. 2008. On-farm fan performance: Implications for ventilation and operating cost. *Journal of Applied Poultry Research* 17(2): 283-295.
- Gates, R. S., K. D. Casey, E. F. Wheeler, H. Xin and A. J. Pescatore. 2008. U.S. broiler ammonia emissions inventory model. *Atmospheric Environment* 42(14): 3342-3350.
- Topper, P. A., E. F. Wheeler, J. S. Zajackowski, R. S. Gates, H. Xin, Y. Liang, and K. D. Casey. 2008. Ammonia emissions from two empty broiler houses with built-up litter. *Transactions of the ASABE* 51(1): 215-225.
- Casey, K. D., S. E. Ford, J. W. McClure, Y. Zhang, and R. S. Gates. 2007. Determining fan performance using FANS: An investigation of performance impacts. *Applied Engineering in Agriculture* 23(2): 333-338.
- Hudson; N., E. McGahan, K. Casey, S. Lowe, G. Galvin, P. Jeston, M. Dunlop. 2007. Odour emissions from anaerobic piggery ponds. 1: Results of a three season, fourteen-month survey. *Bioresource Technology* 98(10) 1877-1887.
- Wheeler, E. F., K. D. Casey, R. S. Gates, H. Xin, J. L. Zajackowski, P. A. Topper, Y. Liang and A. J. Pescatore. 2006. Ammonia emissions from twelve U.S.A. broiler chicken houses. *Transactions of the ASABE* 49(5): 1495-1512.
- Liang, Y., H. Xin, E. F. Wheeler, R. S. Gates, J. S. Zajackowski, P. Topper, H. Li and K. D. Casey. 2005. Ammonia emissions from U.S. poultry houses: laying hens. *Transactions of the ASAE* 48(5): 1927-1941.
- Gates, R. S., K. D. Casey, H. Xin, E. F. Wheeler, J. D. Simmons. 2004. Fan Assessment Numeration System (FANS) design and calibration specifications. *Transactions of the ASAE* 47(5): 1709-1715.
- Chinivasagam, H. N., R. J. Thomas, K. Casey, E. McGahan, E. A. Gardner, M. Rafiee, P. J. Blackall. 2004. Microbiological status of piggery effluent from 13 piggeries in the South East Queensland region of Australia. *Journal of Applied Microbiology* 97(5): 883-891.