

Full name Kenneth David **CASEY**

Title Associate Professor of Air Quality Engineering

Organization Texas A&M AgriLife Research

Postal address 6500 Amarillo Blvd, West, Amarillo, TX 79106

Contact Phone (work) (806) 677-5600
 Phone (mobile) (806) 290-5426
 Fax (806) 677-5644
 E-mail: kdcasey@ag.tamu.edu
 ORCID ID: 0000-0003-0819-8376
 ResearcherID: F-4409-2010

Educational Qualifications

Dec 2005 **Ph.D. in Biosystems and Agricultural Engineering**
 University of Kentucky, Kentucky, USA
Dissertation: The determination of ammonia emissions from mechanically ventilated poultry houses, an examination of the issues involved

May 1992 **Master of Science in Agricultural Engineering**
 Clemson University, South Carolina, USA
Thesis: A computer model to evaluate the design of anaerobic lagoons for pig wastes

May 1986 **Graduate Diploma in Information Processing**
 University of Southern Queensland, Toowoomba, Queensland, Australia

Apr 1981 **Bachelor of Engineering in Agricultural Engineering**
 University of Southern Queensland, Toowoomba, Queensland, Australia

Professional Registration

Registered Professional Engineer Queensland, Registration No: 2922.

POSITION and PROFESSIONAL EXPERIENCE

From/To: Sep 2011 - to date

Organization: Texas A&M AgriLife Research, Texas A&M System

Role: Associate Professor of Air Quality Engineering

Major Tasks:

- Plan and conduct research to quantify and characterize air quality from and develop control measures for cattle feedlots, swine facilities and dairies. This research addresses environmental air quality in relation to state and federal policy and industry needs. This work is carried out as a member of a multidisciplinary faculty team drawn from several collaborating agencies which is conducting field research in the Southern Great Plains on odor, particulates and gaseous emissions. Primary areas of research are:
 - Developing inventory estimates of and a mechanistic understanding of greenhouse gas emissions from feedyards
 - Investigation of water usage at high plains dairies to develop inventory estimates and improve usage efficiency.

Appointment: Research (100%)

PAST POSITIONS and EXPERIENCE**From/To:** Aug 2005 to Sep 2011**Organization:** Texas AgriLife Research, Texas A&M System**Role:** Assistant Professor of Air Quality Engineering**Major Tasks:**

- Planned and conducted research to quantify and characterize air quality from and develop control measures for cattle feedlots, swine facilities and dairies. This research addressed environmental air quality in relation to state and federal policy and industry needs.
 - Quantified emissions of ammonia and hydrogen sulfide from beef cattle feedyards
 - Measured emissions of ammonia, hydrogen sulfide, and particulates from open lot dairies in New Mexico
 - As Site Principal Investigator, managed and operated the National Air Emissions Monitoring Study (NAEMS) swine breeder site in Oklahoma (OK4B) where 2 years of continuous emission data for ammonia, hydrogen sulfide, VOCs and particulates were collected as part of a national 15 site study.

From/To: Dec 2001 to July 2005**Organization:** University of Kentucky

Biosystems and Agricultural Engineering

Role: Research Specialist**Major Tasks:**

- Principal researcher of USDA IFAFS funded, Reducing Ammonia Emissions from Poultry Houses by Enhanced Manure and Diet Management project. This project involves the determining ammonia emission rates from four broiler houses at each of two sites in Kentucky. These emission rates are derived from measurements of ammonia concentration in the exhaust air and determinations of ventilation rate.

From/To: July 1995 to Dec 2001**Organization:** Department of Primary Industries

Intensive Livestock Industry Services and Beef Programs

Role: Principal Environmental Engineer**Major Tasks:**

- Project leadership of MRC funded, Feedlot Waste Management project. This major project involved research components investigating odor emissions from beef cattle feedlots and the hydrology of beef cattle feedlots. Key outcomes of this project involved guidance to industry on more appropriate design management for meeting changing environmental requirements in the northern Australian climatic zone.
- Program Manager of the Cattle and Beef Industry Cooperative Research Centre, Feedlot Waste Management Sub-program. As Program Manager, I had responsibility for research and extension programs involving professional and

technical staff at both DPI and the University of New England. Research areas included sustainable land application, waste minimization through ration modification, modeling waste production and value-adding through co-composting.

- Project leadership of PRDC funded, Pig Waste Management Information Packaging project. This project involved the development of waste characteristic estimation software and the integration of this software with other computer models to form a multipurpose computer model on the land application of agricultural wastes for use by designers and regulators.
- Project Leadership of DPI Funded New Initiative Project – Environmentally Responsible Waste Utilization for Intensive Animal Production. In this role, I was responsible for establishing and leading a research group to undertake research and extension on the environmental issues facing the intensive livestock operations. The group included six research professionals comprising agricultural and environmental engineers, environmental and soil scientists, and systems modeler. It was supported by a professional extension officer, three technicians and an administration officer. Key research areas included waste characterization and modeling, sustainable waste utilization with a particular emphasis on phosphorus storage and utilization and odor and gaseous emissions from anaerobic lagoons and other waste treatment facilities.

From/To: May 1992 to July 1995

Organization: Department of Primary Industries
Intensive Livestock Industry Services and Beef Programs

Role: Project Leader/Engineer

Major Tasks:

- Project leadership of PRDC funded, Pig Waste Management Information Packaging project. This project involves the development of waste characteristic estimation software and the integration of this software with other computer models to form a multipurpose computer model on the land application of agricultural wastes for use by designers and regulators.
- Responsible for the technical aspects of assessment of feedlot license proposals. This has involved detailed assessment of effluent management proposals and odor dispersion studies for a number of large feedlots.
- Cooperation with the PRDC funded project on the production of reference books on pig housing and environment control and effluent management in the pig industry. This has involved the provision of extensive material and the writing of a number of chapters.
- Cooperating as a resource engineer to the Meat Chicken Housing project. This project is looking at the design, operation and performance of hybrid ("Tunnel") ventilated meat chicken sheds.
- Project leader of intensive animal housing and environment control project involving a resource engineering role to and coordination of extension efforts on housing and environment with pig extension officers.

- Development of computer database to store and process licensing information on feedlots and proposed feedlots in Queensland. This database has significantly streamlined process of the feedlot licensing system and enables the rapid production of statistics and other information on the feedlot industry in Queensland.

From/To: August 1990 to May 1992

Organization: Department of Primary Industries
Agricultural Engineering Section

Role: Masters Candidate - Clemson University, South Carolina

Major Tasks:

- A computer model to evaluate the design of anaerobic lagoons for pig wastes was the subject of my thesis. A model based on a mass balance approach and empirically derived relationships was developed for use as a design tool. The model is able to predict nutrient concentrations in the lagoon supernatant and sludge. The method of calculating the lagoon activity ratio of the rational design method was also refined to more accurately reflect the rate of decomposition of organic matter at temperatures below 20°C.
- Studies were primarily undertaken in the schools of Environmental Engineering, and Agricultural and Biological Engineering, these covered areas including biological treatment of wastes, land application of wastes, air pollution, and aquatic chemistry.

From/To: July 1981 to August 1990

Organization: Department of Primary Industries
Agricultural Engineering Section

Role: Project Leader/Engineer

Major Tasks:

- Project Leadership of PRDC funded 'The economic effects and solutions of sub-optimal environments in pig housing' project, a three year, \$150,000, multi-organization project. This project involved the recording and analysis of 15 years of pig housing environmental data from 21 sheds. The Auspig pig production model was then utilized in an attempt to calculate a cost of sub-optimal environments.
- Cooperating engineer and Queensland coordinator of an EIRDC and CMRDC funded project on the environmental performance of laying hen and meat chicken housing. This project involved the continuous monitoring of the environment in ten layer and meat chicken sheds in each of four states. The data from this monitoring was then analyzed in an attempt to quantify the performance of different housing systems and management options.
- Resource engineer role for intensive animal housing and environment control. This involved the provision of engineering advice to extension officers and producers, the production of extension material and the coordination of extension efforts on housing, environment control and waste management with pig and poultry extension officers.

PUBLICATIONS

Book Chapters

Casey, K. D., J. R. Bicudo, D. R. Schmidt, A. Singh, S. W. Gay, R. S. Gates, L. D. Jacobson, and S. J. Hoff. 2006. Chapter 1: Air quality and emissions from livestock and poultry production/waste management systems. In *Animal Agriculture and the Environment: National Center for Manure and Animal Waste Management White Papers*. 1-40. J.M. Rice, D.F. Caldwell, F.J. Humenik, eds. St Joseph, Michigan: ASABE Pub. Number 913C0306.

Peer Reviewed Journals

- McDonald, M. D., K. L. Lewis, G. L. Ritchie, P. B. DeLaune, **K. D. Casey**, and L. C. Slaughter. 2019. Carbon dioxide mitigation potential of conservation agriculture in a semi-arid agriculture region. *AIMS Agriculture and Food*. 4(1) 206-222. <http://dx.doi.org/10.3934/agrfood.2019.1.206>
- Sharma, S., N., Rajan, S. Cui, S. J. Maas, **K. D. Casey**, S. Ale, and R. Jessup. 2019. Carbon and evapotranspiration dynamics of a non-native perennial grass with biofuel potential in the Southern U.S. Great Plains. *Agricultural and Forestry Meteorology*. 269-270: 285-295. <http://dx.doi.org/10.1016/j.agrformet.2019.01.037>
- Parker, D. B., B. Meyer, T. Jennings, J. Jennings, N. A. Cole, and **K. D. Casey**. 2018. Enteric nitrous oxide emissions from beef cattle. *The Professional Animal Scientist* 34(6): 594-607. <http://dx.doi.org/10.15232/pas.2018-01769>
- Parker D. B., H. M. Waldrip, **K. D. Casey**, B. L. Woodbury, M. J. Spiehs, K. Webb and W. M. Willis. 2018. How do temperature and rainfall affect nitrous oxide emissions from open-lot beef cattle feedyard pens? *Transactions of the ASABE* 61(3): 1049-1061. <http://dx.doi.org/10.13031/trans.12788>
- Parker, D. B., **K. D. Casey**, R. W. Todd, H. M. Waldrip, G. W. Marek, B. W. Auvermann, T. H. Marek, K. Webb, W. M. Willis, B. Pemberton, and B. Meyer. 2017. Improved chamber systems for rapid, real-time nitrous oxide emissions from manure and soil. *Transactions of the ASABE* 60(4): 1235-1258. <http://dx.doi.org/10.13031/trans.12151>
- Waldrip, H. M., **K. D. Casey**, R. W. Todd, and D. B. Parker. 2017. Nitrous oxide emissions from Southern High Plains beef cattle feedyards: Measurement and modelling. *Transactions of the ASABE* 60(4): 1209-1221. <http://dx.doi.org/10.13031/trans.12085>
- Sharma, S., N. Rajan, S. Cui, **K. D. Casey**, S. Ale, R. Jessup, and S. Maas. 2017. Seasonal variability of evapotranspiration and carbon exchanges over a biomass sorghum field in the Southern US Great Plains. *Biomass and Bioenergy* 105, 392-401. <http://dx.doi.org/10.1016/j.biombioe.2017.07.021>
- Parker, D. B., H. M. Waldrip, **K. D. Casey**, R. W. Todd, W. M. Willis, and K. Webb. 2017. Temporal nitrous oxide emissions from beef cattle manure following a simulated rainfall event. *Journal of Environmental Quality* 46(4): 733-740. <http://dx.doi.org/10.2134/jeq2017.02.0042>
- Shreck, A. L., P. J. Ebert, E. A. Bailey, J. S. Jennings, **K. D. Casey**, B. E. Meyer, and N. A. Cole. 2017. Effects of energy supplementation on energy losses and nitrogen balance of steers fed green-chopped wheat pasture I: Calorimetry. *Journal of Animal Science* 95(5) 2133-2143. <http://dx.doi.org/10.2527/jas.2017.1417>

- Waldrip, H. M., R. W. Todd, D. B. Parker., N. A. Cole, C. A. Rotz, and **K. D. Casey**. 2016. Nitrous oxide emissions from open-lot cattle feedyards: A review. *Journal of Environmental Quality* 45(6): 1797–1811. <http://dx.doi.org/10.2134/jeq2016.04.0140>
- Todd, R. W., N. A. Cole, R. G. Hagevoort, **K. D. Casey**, and B. W. Auvermann. 2015. Ammonia losses and nitrogen partitioning at southern High Plains open lot dairy. *Atmospheric Environment* 110: 75-83. <http://dx.doi.org/10.1016/j.atmosenv.2015.02.069>
- Jerez, S. B., S. Mukhtar, W. Faulkner, **K. D. Casey**, M. S. Borhan, and R. A. Smith. 2013. Evaluation of electrostatic particle ionization and biocurtain™ technologies to reduce air pollutants from broiler houses. *Applied Engineering in Agriculture* 29(6): 975-984. <http://dx.doi.org/10.13031/aea.29.10011>
- Parker, D., J. Ham, B. Woodbury, L. Cai, M. Spiels, 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. <http://dx.doi.org/10.1016/j.atmosenv.2012.03.068>
- 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. <http://dx.doi.org/10.2134/jeq2010.0307>
- 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. <http://dx.doi.org/10.1016/j.anifeedsci.2011.04.040>
- 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. <http://dx.doi.org/10.3155/1047-3289.60.8.939>
- 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. <http://dx.doi.org/10.13031/2013.30066>
- Gates, R. S., **K. D. Casey**, H. Xin, and R. T. Burns. 2009. Building emissions uncertainty estimates. *Transactions of the ASABE* 52(4): 1345-1351. <http://dx.doi.org/10.13031/2013.27784>
- Singh, A., **K. D. Casey**, W. D. King, A. J. Pescatore, R. S. Gates and M. J. Ford. 2009. Efficacy of urease inhibitor to reduce ammonia emission from poultry houses. *Journal of Applied Poultry Research* 18(1): 34-42. <http://dx.doi.org/10.3382/japr.2008-00046>
- 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. <http://dx.doi.org/10.3382/japr.2006-00055>
- Gates, R. S., **K. D. Casey**, E. F. Wheeler, H. Xin, and A. J. Pescatore. 2008. U.S. broiler ammonia emissions inventory. *Atmospheric Environment* 42(14): 3342-3350. <http://dx.doi.org/10.1016/j.atmosenv.2007.06.057>
- 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. <http://dx.doi.org/10.13031/2013.24215>

- 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. <http://dx.doi.org/10.3382/japr.2006-00055>
- Redding, M. R., A. Skerman, J. Ritchie, and **K. D. Casey**. 2007. How effective are broad-scale nutrient mass-balances for determining the sustainability of lot-feed manure application? *Agriculture, Ecosystems & Environment* 120(2-4): 166-178. <http://dx.doi.org/10.1016/j.agee.2006.08.015>
- Hudson; N., E. McGahan, **K. Casey**, S. Lowe, G. Galvin, P. Jeston, and M. Dunlop. 2007. Odour emissions from anaerobic piggery ponds. 1: Results of a three season, fourteen-month survey. *Bioresource Technology* 98(10): 1877-1887. <http://dx.doi.org/10.1016/j.biortech.2006.06.012>
- Hudson; N., K. Bell, E. McGahan, S. Lowe, G. Galvin, and **K. Casey**. 2007. Odour emissions from anaerobic piggery ponds. 2: Improving estimates of emission rate through recognition of spatial variability. *Bioresource Technology* 98(10): 1888-1897. <http://dx.doi.org/10.1016/j.biortech.2006.06.013>
- 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. <http://dx.doi.org/10.13031/2013.22042>
- Liang, Y., H. Xin, H. Li, R. S. Gates, E. F. Wheeler, and **K. D. Casey**. 2006. Effect of measurement intervals on estimation of ammonia emissions from layer houses. *Transactions of the ASABE* 49(1): 183-186. <http://dx.doi.org/10.13031/2013.20236>
- 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. <http://dx.doi.org/10.13031/2013.20002>
- Pescatore, A. J., **K. D. Casey**, and R. S. Gates. 2005. Ammonia emissions from broiler houses. *Journal of Applied Poultry Research* 14(3): 635-637. <http://dx.doi.org/10.1093/japr/14.3.635>
- Gates, R. S., H. Xin, **K. D. Casey**, Y. Liang, and E. F. Wheeler. 2005. Method for measuring ammonia emissions from poultry houses. *Journal of Applied Poultry Research* 14(3): 622-634. <http://dx.doi.org/10.1093/japr/14.3.622>
- Chinivasagam, H. N., R. J. Thomas, **K. Casey**, E. McGahan, E. A. Gardner, M. Rafiee, and 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. <http://dx.doi.org/10.1111/j.1365-2672.2004.02382.x>
- Gates, R. S., **K. D. Casey**, H. Xin, E. F. Wheeler, and J. D. Simmons. 2004. Fan Assessment Numeration System (FANS) design and calibration specifications. *Transactions of the ASAE* 47(5): 1709-1715. <http://dx.doi.org/10.13031/2013.17613>
- Singh, A., J. R. Bicudo, A. L. Tinoco, I. F. Tinoco, R. S. Gates, **K. D. Casey**, and A. J. Pescatore. 2004. Characterization of nutrients in built-up broiler litter using trench and random walk sampling methods. *Journal of Applied Poultry Research* 13(3): 426-432. <http://dx.doi.org/10.1093/japr/13.3.426>
- Hudson, N., **K. Casey**, S. Melvin, and P. Nicholas. 2001. Laboratory investigation of supported permeable organic covers for the management of odour emissions from anaerobic piggery

waste ponds. *Water Science and Technology* 44(9): 317-326.
<http://dx.doi.org/10.2166/wst.2001.0563>

McGahan, E. J. and **K. D. Casey**. 1997. "A new unit for defining the size of a pig enterprise for environmental purposes". In: *Proceedings of Manipulating Pig Production VI*, p298, Canberra, ACT. ed P.D. Cranwell. (Australian Pig Science Association: Werribee).

Casey, K. D., E. A. Gardner and E. J. McGahan. 1995. "Characterisation of piggery anaerobic lagoons in Southern Queensland". In: *Proceedings of Manipulating Pig Production V*, p202, Canberra, ACT. eds D.P Hennessy and P.D Cranwell. (Australian Pig Science Association: Werribee).

Casey, K. D. 1993. "The importance of manure characteristics in the design of anaerobic ponds for treating pig wastes". In: *Proceedings of Manipulating Pig Production IV*, p261, ed E.S. Batterham. (Australian Pig Science Association: Werribee).

Reviewed Conference Proceedings

Justino E., F. Maluf, and **K. Casey**. 2018. Impact of pig farm construction and environmental management practices on nursery pig performance – A Brazilian case study. In: *Proc of the 10 th International Livestock Environment Symposium (ILES X)*. Sep 25-27. 2018, Omaha, NE. [Abstract, Paper & Presentation]

Casey, K., R. Todd, M. Rhoades, and D. Parker. 2018. Emissions of hydrogen sulfide from the pen area of a beef cattle feedyard in the Texas High Plains. In: *Proc of the 10 th International Livestock Environment Symposium (ILES X)*. Sep 25-27. 2018, Omaha, NE. [Abstract, Paper & Poster]

Parker, D., **K. Casey**, H. Waldrip, J. Jennings, and R. Todd. 2018. Enteric and simulated pen surface emissions of nitrous oxide from beef cattle feedyards. In: *Proc of the 10 th International Livestock Environment Symposium (ILES X)*. Sep 25-27. 2018, Omaha, NE. [Abstract, Paper & Presentation]

Casey, K. D., and V. K Vaddella. 2013. Greenhouse gas emissions from pen surfaces at Texas High Plains beef feedyards during fall. Proceedings of the 5th Greenhouse Gases & Animal Agriculture Conference (GGAA 2013). *Advances in Animal Biosciences* 4(2): 522. June 23-26, 2013, Dublin, Ireland.

Casey, K. D., E. L. Cortus, A. J. Heber, A. P. Caramanica. 2012. Ammonia emissions from a pig breeder facility in the Oklahoma Panhandle. In Proc. *Ninth International Livestock Environment Symposium*. ASABE Paper No. ILES12-2245. St Joseph, Mich.: ASABE.

Casey, K. D., E.L. Cortus, A.P. Caramanica, and A.J. Heber. 2011. Air emissions from a pig breeder facility in the Oklahoma Panhandle. In *Proceedings of the Biennial Conference of the Australian Society for Engineering in Agriculture (SEAg), Sept, 29-30, 2011*, CD-ROM 100-107, Surfers Paradise, Queensland, Australia.: SEAg.

Todd, R. W., N. A. Cole, **K. D. Casey**, R. Hagevoort, and B. W. Auvermann. 2010. Methane emissions from a southern High Plains dairy wastewater lagoon. In *Proceedings of the Greenhouse Gases and Animal Agriculture Conference. Banff, Canada, Oct, 3-8, 2010*.

Todd, R. W., N. A. Cole, **K. D. Casey**, R. Hagevoort, and B. W. Auvermann. 2010. Methane emissions from a New Mexico dairy lagoon system. In *Proceedings of The International Symposium*

- on Air Quality and Manure Management for Agriculture. Dallas, Texas, Sept, 13-15, 2010. CD-ROM, 10 Pg. St. Joseph, Mich.: ASABE.*
- Casey, K. D.**, A. P. Caramanica, A. J. Heber, and E. L. Cortus. 2009. Establishment and operation of the National Air Emission Monitoring Study site at a pig breeder facility in Oklahoma. In *Proceedings of The 2009 CIGR International Symposium of the Australian Society for Engineering in Agriculture. Brisbane, Queensland, Sept, 13-16, 2009. CD-ROM, Australia.: SEAg.*
- Parker, D. B., N. A. Cole, **K. D. Casey**, G. Galvin, R. Ormerod, C. S. Paris, E. A. Caraway, and M. B. Rhoades. 2009. Wind tunnels vs. flux chambers: area source emission measurements and the necessity for voc and odour correction factors. In *Proceedings of 19th International Clean Air and Environment Conference. Perth, Australia, Sept, 6-9, 2009. CD-ROM, Olinda, Australia.: CASANZ.*
- Casey, K. D.**, D. B. Parker, M. B. Rhoades, and L. A. McDonald. 2009. Hydrogen sulphide emissions from beef cattle feedlots in Texas. In *Proceedings of 19th International Clean Air and Environment Conference. Perth, Australia, Sept, 6-9, 2009. CD-ROM, Olinda, Australia.: CASANZ.*
- Casey, K. D.**, A. P. Caramanica, A. J. Heber, and E. L. Cortus, 2009. Establishment and operation of the national air emission monitoring study site at a sow farm in Oklahoma. In *Proceedings of A&WMA's 102nd Annual Conference & Exhibition: Driving Environmental Progress. Detroit, Michigan, June, 16-19, 2009. CD-ROM, Pittsburgh, Penn.: A&WMA.*
- Heber, A. J., B. W. Bogan, Ji-Qin Ni, T. T. Lim, J. C. Ramirez-Dorransoro, E. L. Cortus, C. A. Diehl, S. M. Hanni, C. Xiao, **K. D. Casey**, C. A. Gooch, L. D. Jacobson, J. A. Koziel, F. M. Mitloehner, P. M. Ndegwa, W. P. Robarge, L. Wang, and R. Zhang. 2008.. In *Proceedings of The Eighth International Livestock Environment Symposium (ILES VIII). Iguassu Falls, Brazil, September 1-5, 2008. CD-ROM, 8 Pg. St. Joseph, Mich.: ASABE.*
- Gates, R. S., **K. D. Casey**, H. Xin, R. T. Burns, and H. Li. 2008. Uncertainty analysis in animal building aerial emissions measurements. In *Proceedings of The Eighth International Livestock Environment Symposium (ILES VIII). Iguassu Falls, Brazil, September 1-5, 2008. CD-ROM, 6 Pg. St. Joseph, Mich.: ASABE.*
- Wheeler, E. F., **K. D. Casey**, R. S. Gates, H. Xin, P. A. Topper, and Y. Liang. 2008. Ammonia emissions from USA broiler chicken barns managed with new, built-up, or acid-treated litter. In *Proceedings of The Eighth International Livestock Environment Symposium (ILES VIII). Iguassu Falls, Brazil, September 1-5, 2008. CD-ROM, 7 Pg. St. Joseph, Mich.: ASABE.*
- Casey, K. D.**, M. B. Rhoades, D. B. Parker, and L. A. McDonald. 2008. Hydrogen sulfide emission from and concentrations at a Texas beef cattle feedyard. In *Proceedings of A&WMA's 101st Annual Conference & Exhibition: Integrating Science and Sustainability. Portland, Oregon, June, 24-26, 2008. CD-ROM, Pittsburgh, Penn.: A&WMA.*
- Perschbacher-Buser, Z. L., D. B. Parker, **K. D. Casey**, G. Green, E. A. Caraway, and M. B. Rhoades. 2007. Quantification of ambient p-Cresol concentrations downwind of beef cattle feedyards. In: *Proceedings of International Symposium on Air Quality & Waste Management for Agriculture, Sept 15-19, 2007, p 6. CD-ROM, Broomfield, CO.: ASABE.*
- Wheeler, E. F., R. S. Gates, H. Xin, **K. Casey**, P. Topper, and Y. Liang. 2007. Ammonia emissions from layer hen and broiler chicken houses in the U.S.A. In: *Proceedings of International Ammonia*

- Conference. Wageningen, NL, March 18-21, 2007. 178-179. Gert-Jan Monteny and Eberhart Hartung, eds. Wageningen, NL.: Wageningen Academic Publishers.*
- Casey, K. D.**, R. S. Gates, E. F. Wheeler, H. Xin, and Y. Liang. 2007. Quantifying measurement uncertainty for the multi-state broiler ammonia emissions project. In: *Proceedings of International Ammonia Conference. Wageningen, NL, March 18-21, 2007. 343-344. Gert-Jan Monteny and Eberhart Hartung, eds. Wageningen, NL.: Wageningen Academic Publishers.*
- Thoma, E. D., R. C. Shores, D. B. Harris, D. F. Natschke, R. A. Hashmonay, **K. D. Casey**, and R. S. Gates. 2005. Measurement of ammonia emissions from mechanically ventilated poultry houses using multipath tunable diode laser spectroscopy. In *Proceedings of A&WMA's 98th Annual Conference & Exhibition: Exploring Innovative Solutions. Minneapolis, Minn, June, 21-24, 2005. CD-ROM, Pittsburgh, Penn.: A&WMA.*
- Casey, K. D.**, R. S. Gates, A. Singh, A. J. Pescatore, E. F. Wheeler, H. Xin, and Y. Liang. 2005. The effect of litter management on ammonia emissions from U.S. broiler chicken houses. In *Proceedings of A&WMA's 98th Annual Conference & Exhibition: Exploring Innovative Solutions. Minneapolis, Minn, June, 21-24, 2005. CD-ROM, Pittsburgh, Penn.: A&WMA.*
- Gates, R. S., **K. D. Casey**, A. J. Pescatore, E. F. Wheeler, and H. Xin. 2005. Assessing annual U.S. broiler chicken house emissions. In *Proceedings of A&WMA's 97th Annual Conference & Exhibition: Exploring Innovative Solutions. Minneapolis, Minn, June, 21-24, 2005. CD-ROM, Pittsburgh, Penn.: A&WMA.*
- Casey, K. D.**, R. S. Gates, E. F. Wheeler, H. Xin, J. L. Zajackowski, P. A. Topper, and Y. Liang. 2004. Ammonia emissions from Kentucky broiler houses during winter, spring and summer. In *Proceedings of A&WMA's 97th Annual Conference & Exhibition: Sustainable Development: Gearing Up for the Challenge. Indianapolis, Ind, June, 22-25, 2004. CD-ROM, Pittsburgh, Penn.: A&WMA.*
- Casey, K. D.**, R. S. Gates, E. F. Wheeler, H. Xin, J. L. Zajackowski, P. A. Topper, and Y. Liang. 2003. Ammonia emissions from Kentucky broiler houses during winter and spring. In *Proceedings of the National Clean Air Conference: Linking Air Pollution Science, Policy and Management. Newcastle, Australia, November, 23-27, 2003: CASANZ.*
- Xin, H., Y. Liang, A. Tanaka, R. S. Gates, E. F. Wheeler, **K. D. Casey**, A. J. Heber, J.Q. Ni, and H. Li. 2003. Ammonia emissions from U.S. poultry houses: Part I – Measurement system and techniques. In *Proceedings of the Third International Conference on Air Pollution from Agricultural Operations. Research Triangle Park, NC, October 12-15, 2003. pp 106-115, St. Joseph, Mich.: ASAE.*
- Liang, Y., H. Xin, A. Tanaka, S. H. Lee, H. Li, E. F. Wheeler, R. S. Gates, J. S. Zajackowski, P. Topper, and **K. D. Casey**. 2003. Ammonia emissions from U.S. poultry houses: Part II – Layer houses. In *Proceedings of the Third International Conference on Air Pollution from Agricultural Operations. Research Triangle Park, NC, October 12-15, 2003. pp 147-158, St. Joseph, Mich.: ASAE.*
- Wheeler, E. F., **K. D. Casey**, J.S. Zajackowski, P. A. Topper, R. S. Gates, H. Xin, Y. Liang, and A. Tanaka. 2003. Ammonia emissions from U.S. poultry houses: Part III – Broiler houses. In *Proceedings of the Third International Conference on Air Pollution from Agricultural Operations. Research Triangle Park, NC, October 12-15, 2003. pp 159-166, St. Joseph, Mich.: ASAE.*

- Galvin, G., **K. D. Casey**, S. Lowe, M. A. Atzeni, and E. McGahan. 2003. Spatial variability of odour emissions from anaerobic piggery lagoons in Queensland. In *Proceedings of the Third International Conference on Air Pollution from Agricultural Operations*. Research Triangle Park, NC, October 12-15, 2003. pp 292-302, St. Joseph, Mich.: ASAE.
- Galvin, G., S. Lowe, M. Atzeni, **K. Casey**, and E. McGahan. 2002. The effect of loading rate on odour emissions from anaerobic effluent ponds in south-east Queensland. In *Proceedings of the 4th Queensland Environmental Conference*. Brisbane, Qld, May 30 -3, 2002. CD-ROM, Brisbane, Australia: IEAust.
- Hudson, N., and **K. Casey**. 2002. Permeable covers, anaerobic ponds and odour management. In *Proceedings of the 4th Queensland Environmental Conference Brisbane, Qld, May 30 -3, 2002*. CD-ROM, Brisbane, Australia: IEAust.
- Casey, K. D.**, R. S. Gates, E. F. Wheeler, H. Xin, P. A. Topper, J. Smith Zajackowski, Y. Liang, A. J. Heber, and L. D. Jacobson. 2002. Quality assured measurements of livestock building emissions: Part 4. Building ventilation rate. In *Proceedings of Symposium on Air Quality Measurement Methods and Technology—2002*. CD-ROM, Pittsburgh, Penn.: AWMA.
- Blackall, P. J., H. N. Chinivasagam, **K. D. Casey**, E. J. McGahan, E. A. Gardner, A. Vieritz, Z. Ristovski, and V. Agranovski, 2001. An evaluation of the effect of flushing with effluent on the bacterial load in the air of Queensland piggeries. In: *Proceedings of the 2001 Queensland Pig Science Seminar*, Murgon. Australasian Pig Institute.
- McGahan, E., P. Jeston, G. Galvin, and **K. Casey**. 2001. Quantifying anaerobic pond odour emissions. In: *Proceedings of the 2001 Queensland Pig Science Seminar*, Murgon. Australasian Pig Institute.
- Casey, K. D.**, D. S. Barnes, and J. M. Potts. 2000. Co-composting feedlot manure and cypress timber residues. In: *Proceedings of the Eighth International Symposium on Agricultural, Animal and Food Processing Wastes*. pp 624-631, Oct 9-11, Des Moines, IA. St. Joseph, Mich.: ASAE.
- McGahan, E. J., **K. D. Casey**, D. Duperouzel, and R. J. Smits. 2000. Validation of waste estimation theory for intensive pig production systems. In: *Proceedings of the Eighth International Symposium on Agricultural, Animal and Food Processing Wastes*. pp 96-102, Oct 9-11, Des Moines, IA. St. Joseph, Mich.: ASAE.
- McGahan, E. J., **K. D. Casey**, A. S. Skerman, and P. J. Nicholas. 2000. A method for siting piggeries based on odour generation, dispersion and impact. In: *Proceedings of the Second International Conference on Air Pollution from Agricultural Operations*. pp 361-368, Oct 9-11, Des Moines, IA., St. Joseph, Mich.: ASAE.
- McGahan, E. J., **K. D. Casey**, A. S. Skerman, T. A. Streeten, and P. J. Nicholas. 1999. Guidelines to determine separation distances for the Queensland pig industry. In: *Proceedings of the 1999 Queensland Pig Science Seminar*, Gatton. Australasian Pig Institute.
- Nicholas, P. J., **K. D. Casey**, and V. H. James. 1999. Redevelopment of the DPI ILEMS forced-choice dynamic olfactometer. In: *Proceedings of the 1999 Queensland Pig Science Seminar*, Gatton. Australasian Pig Institute.
- Atzeni, M. G., **K. D. Casey**, E. J. McGahan, and M. R. Redding. 1997. Using MEDLI to investigate the sustainability of changing piggery production systems. In: *Proceedings of Queensland Pig Science Seminar*, Gatton, QLD. Australasian Pig Institute.

Casey, K. D. 1995. Computer design model of anaerobic lagoons for pig wastes. In: *Proceedings of the Seventh International Symposium on Agricultural and Food Processing Wastes*. pp 521-531, June 18-20, Chicago, IL, ASAE, 2950 Niles Rd., St. Joseph, MI 49085-9659 USA.

Conference Proceedings, Abstracts and Reports

Casey, K., D. Parker, H. Waldrip, M. Spiehs, and B. Woodbury. 2018. Diurnal measurements of methane emissions from a feedyard pen surface in Texas during spring. In: *Proc of the ASA and CSSA International Annual Meetings*, Nov 5-7. 2018, Tampa, FL. [Abstract & Oral Presentation]

Waldrip, H., D. Parker, D. Miller, **K. Casey**, L. Durso, and R. Todd. 2018. Nitrous oxide from beef cattle feedyards: Understanding effects of microbial community structure, climate and manure properties. In: *Proc of the ASA and CSSA International Annual Meetings*, Nov 5-7. 2018, Tampa, FL. [Abstract & Poster]

Zapata, D., N. Rajan, **K. Casey**, and R. Schnell. 2018. Carbon and nitrogen mineralization of cereal and legume cover crop residues in organic soils. In: *Proc of the ASA and CSSA International Annual Meetings*, Nov 5-7. 2018, Tampa, FL. [Abstract & Poster]

Norris, A., L. O. Tedeschi, **K. D. Casey**, J. Debeux, J. Foster, J. Muir, and W. Pinchak. 2018. Quebracho (*Schinopsis balansae*) extract in beef cattle fed high-roughage total mixed ration affects manure gas emissions. In: *Proc of the 10 th International Symposium on the Nutrition of Herbivores (ISNH 2018)*. Sep 2-6. 2018, Clermont-Ferrand, France. [Abstract & Poster]

Waldrip, H., D. Parker, S. Miller, D. Miller, L. Durso, **K. Casey**, R. Todd, and E. Cortus. (2018). *Nitrous oxide from beef cattle feedyards: Understanding effects of microbial community structure, climate and manure properties on denitrification*. ASABE Paper 1801295. St. Joseph, MI: ASABE. [Abstract & Paper]

Parker, D. B., E. L. Cortus, **K. D. Casey**, G. W. Marek, K. R. Heflin, and H. M. Waldrip. 2018. Empirical model of annual nitrous oxide emissions from open-lot beef cattle feedyard pens in the Southern High Plains. ASABE Paper 1800508. St. Joseph, MI: ASABE. [Abstract, Paper & Presentation]

Parker, D. B., T. Jennings, B. Meyer, J. Jennings, A. Cole, H. Waldrip, and **K. Casey**. 2018. Enteric nitrous oxide emissions from beef feedlot Cattle. In: *Proc of the American Society of Animal Science, Mid-West Section Meeting*. Mar 13-15. 2018, Omaha, NE. [Abstract & Presentation]

Norris, A. B., L. O. Tedeschi, **K. D. Casey**, J. C. B. Dubeux, J. L. Foster, J. P. Muir, and W. E. Pinchak. 2018. Effects of feeding different levels of Quebracho (*Schinopsis balansae*) extract in a high-roughage total mixed ration on manure gas emissions. In: *Proc of the American Society of Animal Science, Southern Section Meeting*. Feb 3-6. 2018, Fort Worth, TX. [Abstract & Poster]

Casey, K. D., D. B. Parker, H. M. Waldrip, and R. W. Todd. 2017. Diurnal variation in greenhouse fluxes from a feedyard pen surface. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings*, Oct 23-25. 2017, Tampa, FL. [Abstract & Poster]

Rajan, N., R. Schnell, M. Bagavathiannan, S. Nair, D Constance, **K. Casey**, D. Zapata, J. Moreno, S. Samuelson. 2017. Transitioning organic grain and soybean cropping systems in Texas: Challenges and benefits. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings*, Oct 23-25. 2017, Tampa, FL. [Abstract & Poster]

- Casey, K. D.**, D. B. Parker, H. M. Waldrip, and R. W. Todd. 2017. Changes in nitrous oxide emissions from feedlot manure in response to temperature and moisture addition. In: *Proc of the 17th RAMIRAN Conference*, Sep 4-6. 2017, Wexford, Ireland. [Abstract & 3 minute Oral and Poster Presentation]
- Casey, K. D.**, D. B. Parker, H. M. Waldrip, and R.W. Todd. 2017. Diurnal variability in nitrous oxide flux from simulated open-lot beef cattle feedyard pen surfaces. **ASABE Paper 1701348**. St. Joseph, MI: ASABE. [Abstract & Paper]
- Waldrip, H.W., R. W. Todd, D. B. Parker, C.A. Rotz, N.A. Cole, and **K. D. Casey**. 2017. How Well Do We Understand Nitrous Oxide Emissions from Open-lot Cattle Systems? In: *Proc of the Waste to Worth 2017, Apr 18-21. 2017. Raleigh, NC*. [Abstract & Presentation]
- Casey, K. D.**, H.W. Waldrip, D. B. Parker, and R. W. Todd. 2017. Spatial variability in nitrous oxide and methane emissions from beef cattle feedyard pen surfaces. In: *Proc of the Waste to Worth 2017, Apr 18-21. 2017. Raleigh, NC*. [Abstract & Presentation]
- Sharma, S., N. Rajan, **K. Casey**, S. Ale, R.W. Jessup, and S. J. Maas. 2017. Inter-annual carbon, water and energy exchange of irrigated and dryland cotton in the Texas High Plain. In: *Proc Beltwide Cotton Conference, Jan 4-6, 2017. Dallas, TX*. [Abstract & Poster]
- Gonzalez, S., K. Norman, B. W. Auvermann, **K. D. Casey**, J. Jennings, B. Pinchak, and H.M. Scott. 2016. Viability of bacteria harboring antimicrobial resistance genes in feedyard dust. In: *Proc of the 97th Annual Conference of Research Workers in Animal Diseases, Dec 4-6. 2016. Chicago, IL*. [Abstract & Poster]
- Sharma, S., N. Rajan, **K. D. Casey**, and S. Maas. 2016. Impacts of biofuel induced land use change on daily, seasonal, and inter-annual evapotranspiration and energy balance dynamics of the Southwestern U.S. Cotton Belt region. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings, Nov 6-9. 2016, Phoenix, AZ*. [Abstract & Poster]
- Sharma, S., N. Rajan, **K. D. Casey**, and S. Maas. 2016. Investigating the relationship between net carbon uptake and evaporation of agroecosystems in the Southern Great Plains using eddy covariance. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings, Nov 6-9. 2016, Phoenix, AZ*. [Abstract & Poster]
- Waldrip, H. M., **K. D. Casey**, R. W. Todd, and D. B. Parker. 2016. Comparison of nitrous oxide emissions from beef cattle manure and soil: effects of temperature, water content, and urine application. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings, Nov 6-9. 2016, Phoenix, AZ*. [Abstract & Poster]
- Parker, D. B., **K. D. Casey**, H. M. Waldrip, and R. W. Todd, 2016. Improved NFT-NSS chamber systems for rapid, real-time nitrous oxide emissions from livestock manure and soil. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings, Nov 6-9. 2016, Phoenix, AZ*. [Abstract & Presentation]
- Gonzalez, S., K. Norman, B. W. Auvermann, **K. D. Casey**, J. Jennings, B. Pinchak, and H.M. Scott. 2016. Viability of bacteria harboring antimicrobial resistance genes in feedyard dust. In: *Proc 13th Annual Pathways Student Research Symposium, Nov 3-4, 2016. Prairie View A&M University, Prairie View, TX*. [Abstract & Poster]
- Casey, K. D.**, G. Galvin, R. W. Todd, D. B. Parker, and H. M. Waldrip. 2016. Investigating the potential for using passive diffusion samplers to measure fenceline concentration and

- emission fluxes of ammonia and hydrogen sulfide at beef cattle feedyards. In: *Proc of the ASABE International Annual Meeting*, Jul 18-20. 2016, Orlando, FL. [Abstract & Poster]
- Casey, K. D.**, H. M. Waldrip, R. W. Todd, and N. A. Cole. 2016. Nitrous oxide and methane emissions from beef cattle feedlot pen surfaces. In: *Proc of the Greenhouse Gas and Animal Agriculture 2016 Conference*, Feb 14-18. 2016, Melbourne, VIC, Australia. [Abstract & Poster]
- Casey, K. D.**, H. M. Waldrip, R. W. Todd, N. A. Cole. 2015. Optimizing NFT-NSS chamber techniques for greenhouse gas emissions measurements from feedyard pen surfaces. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings*, Nov 15-18. 2015, Minneapolis, MN. [Abstract & Poster]
- Waldrip, H. M., **K. D. Casey**, R. W. Todd, and N. A. Cole. 2015. Predicting greenhouse gas emissions from beef cattle feedyard manure. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings*, Nov 15-18. 2015, Minneapolis, MN. [Abstract & Presentation]
- Waldrip, H. M., **K. D. Casey**, R. W. Todd, and N. A. Cole. 2015. Factors affecting greenhouse gas emissions from beef cattle feedyard manure: A laboratory study. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings*, Nov 15-18. 2015, Minneapolis, MN. [Abstract & Presentation]
- Rajan, R., S. Sharma, **K. D. Casey**, and S. Maas. 2015. Effect of soil moisture and temperature on soil carbon flux from a conventional cotton cropping system. In: *Proc of the ASA, CSSA and SSSA International Annual Meetings*, Nov 15-18. 2015, Minneapolis, MN. [Abstract & Presentation]
- Shreck, A. L., P. J. Ebert, E. A. Bailey, J. S. Jennings, **K. D. Casey**, and N. A. Cole. 2015. Effects of supplementation to steers consuming green chopped wheat pasture on energy losses and nitrogen balance. *J. Anim. Sci.* Vol. 93, Suppl. s3/*J. Dairy Sci.* Vol. 98, Suppl. 2, p 311. [Abstract & Poster]
- Casey, K. D.**, H. M. Waldrip, R. W. Todd, and N. A. Cole. 2015. Greenhouse gas emissions from beef cattle feedlot pen surfaces in Texas. In: *Proc of the ASABE International Annual Meeting*, Jul 27-29. 2015, New Orleans, LA. [Abstract & Presentation]
- Casey, K. D.**, H. M. Waldrip, R. W. Todd, and N. A. Cole. 2015. Nitrous oxide and methane emissions from beef cattle feedyard pen surfaces in the High Plains of Texas. In: *Proc of World Congress on Integrated Crop-Livestock-Forestry Systems*, Jul 13-17. 2015, Brasilia, Brazil. [Abstract & Poster]
- Casey, K. D.**, H. M. Waldrip, R. W. Todd, and N. A. Cole. 2015. Measuring nitrous oxide and methane from feedlot pen surfaces: Experience with NFT-NSS chamber technique. In: *Proc of Waste 2 Worth 2015*, Mar 30 – Apr 3. 2015, Seattle, WA. [Abstract & Presentation]
- Casey, K. D.**, H. M. Waldrip, R. W. Todd, and N. A. Cole. 2014. Greenhouse gas emissions from beef cattle feedlot pen surfaces in Texas. In: *Proc of ASA, CSSA, & SSSA International Annual Meeting*, Nov 2-5. 2014, Long Beach, CA. [Abstract & Presentation]
- Waldrip, H. M., **K. D. Casey**, R. W. Todd, and N. A. Cole. 2014. Predicting greenhouse gas emissions from beef cattle feedyard manure. In: *Proc of ASA, CSSA, & SSSA International Annual Meeting*, Nov 2-5. 2014, Long Beach, CA. [Abstract & Poster]

- Todd, R. W., N. A. Cole, R. Hagevoort, and **K. D. Casey**. 2014. Ammonia losses from an open lot southern high plains dairy during summer. In: *Proc of ASA, CSSA, & SSSA International Annual Meeting*, Nov 2-5. 2014, Long Beach, CA. [Abstract & Poster]
- Casey, K. D.**, G. R. Hagevoort, D. B. Parker, and R. E. DeOtte Jr. 2014. Water use at Texas High Plains dairies. In: *Proceedings of the 18th World Congress of CIGR*. Abstract No. 0508-005. Sept. 16-19, 2014. Beijing, China. [Abstract & Presentation]
- Casey, K. D.**, J. M. Sweeten, and R. Hagevoort. 2014. Water usage at cattle feedlots and the potential for water conservation. *J. Anim. Sci.* Vol. 92, E-Suppl. 2/*J. Dairy Sci.* Vol. 97, E-Suppl. 1, p217. [Abstract & Invited Presentation]
- Casey, K. D.**, V. K. Vaddella, H. M. Waldrip, R. W. Todd, W. B. Faulkner. 2013. Greenhouse gas emissions from beef cattle feedlot pen surfaces in Texas during fall. ASABE Paper No. 13-1620819, St. Joseph, Mich.: ASABE. [Abstract & Poster]
- Cole, N. A., K. E. Hales, R. W. Todd, **K. D. Casey**, and J. C. McDonald. 2013. Effects of corn processing method and dietary inclusion of wet distillers grains with solubles (WDGS) on enteric methane emissions of finishing cattle. In: *Proceedings of the Waste to Worth Conference*. April 1-5, 2013, Denver, CO.
- Vander Dussen, T., G. R. Hagevoort, J. Lazarus, E. Naumburg, R. Ganta, and **K. D. Casey**. 2012. Water Usage and Discharge Volumes on New Mexico Dairy Operations. *J. Dairy Sci.* 95 Suppl. 1: 698 [Abstract]
- Mukhtar, S., S. B. Jerez, W. B. Faulkner, and **K. D. Casey**. 2012. Use of Biocurtains and the EPI system to control dust and odors from poultry housing. In: *Proceedings of the 2012 National Poultry Waste Symposium*. October 23-25, Shreveport, LA [Paper]
- Roy, M., N. Rajan, **K. D. Casey**, F. M. Padilla, and P. Sharma. 2012. Greenhouse gas emissions from cotton and grain sorghum cropping systems under different nitrogen and tillage treatments. Abstracts, Annual Meetings, Amer. Soc. Agronomy. October 21 - 24, Cincinnati, OH. [Abstract]
- Sama, M. P., L. Pepple, G.B. Day, D. G. Overhults, G. M. Morello, I. M. Lopes, J. Earnest, **K. D. Casey**, and R. S. Gates. 2012. Calibration drift assessment and upgrades to the Fan Assessment Numeration System (FANS). ASABE Paper No. 12-1337770, St. Joseph, Mich.: ASABE. [Abstract & Paper]
- Casey, K. D.**, R. W. Todd, W. B. Faulkner, and A. P. Caramanica. 2012. Nitrous oxide and methane emissions from beef cattle feedlot surfaces in Texas. ASABE Paper No. 12-1337597, St. Joseph, Mich.: ASABE. [Abstract & Poster]
- Casey, K. D.**, E. L. Cortus, A. P. Caramanica, and A. J. Heber. 2011. Air emissions from a pig breeder facility in the Oklahoma Panhandle. In *Book of Abstracts of the Biennial Conference of the Australian Society for Engineering in Agriculture (SEAg)*. Sept, 29-30, 2011, Surfers Paradise, Queensland, Australia.: SEAg. p 25. [Abstract]
- Jerez, S. B., S. Mukhtar, W. Faulkner, **K. D. Casey**, M. S. Borhan, and R. A. Smith. 2011. Evaluation of electrostatic particle ionization and BioCurtain™ technologies to reduce air pollutants from broiler houses. ASABE Paper No. 1110550, St. Joseph, Mich.: ASABE. [Abstract, Paper & Poster]

- Casey, K. D.**, L. A. McDonald, R. G. Hagevoort, and D. B. Parker. 2011. Water use at an open-corrall dairy in the Texas high plains. ASABE Paper No. 1111715, St. Joseph, Mich.: ASABE. [Abstract & Poster]
- Hamilton, K. M., W. B. Faulkner, **K. D. Casey**, and M. S. Borhan. 2011. Comparison of methods to measure greenhouse gas emissions from large area sources. ASABE Paper No. 1111529, St. Joseph, Mich.: ASABE. [Abstract & Poster]
- Heber, A. J., R. A. Grant, M. Boehm, E. L. Cortus, B. W. Bogan, T. T. Lim, J.-Q. Ni, L. Chai, W. Robarge, **K. Casey**, J. Koziel, and K. Wang. 2010. Evaluation and analysis of NAEMS pork data. Final Report. Purdue University. West Lafayette, IN, November 15.
- Cortus, E. L., **K. D. Casey**, A. P. Caramanica, K. J. Mickey, and A. J. Heber. 2010. National Air Emissions Monitoring Study: Emissions data from two sow barns and one swine farrowing room in Oklahoma- Site OK4B. Final Report. Purdue University. West Lafayette, IN, July 2.
- Hamilton, K., W. B. Faulkner, and **K. D. Casey**. 2010. Evaluation of gaseous emissions from feedyards using open path spectroscopy. ASABE Paper No. 1008830. St. Joseph, Mich.: ASABE. [Abstract & Poster]
- Xin, H., H. Li, R. Gates, R. Burns, and **K. Casey**. 2010. Methodologies and protocols for analysis of raw data to minimize uncertainty of resultant aerial emissions estimation. Presented at *USDA Agricultural Air Quality Taskforce - Livestock and Poultry Air Emissions Standardization Workshop, Research Triangle Park, North Carolina, Sep 27-28, 2010*.
- Wheeler, E.F., D. Meyer, P. Martin, D. Schmidt, W. Powers, **K. Casey**, R. Stowell, S. Mukhtar, L. Jacobson, P. Bredwell, A. Stokes, D. Shelmidine, T. Applegate, B. Weinheimer, and G. Zwicke. 2010. Recommended units and supporting data for standardized reporting of air emissions from animal agriculture. Presented at *USDA Agricultural Air Quality Taskforce - Livestock and Poultry Air Emissions Standardization Workshop, Research Triangle Park, North Carolina, Sep 27-28, 2010*.
- Todd, R. W., N. A. Cole, D. B. Parker, M. Rhoades, and **K. Casey**. 2009. Effect of feeding distiller's grains on dietary crude protein and ammonia emissions from beef cattle feedyards. In *Proceedings of Texas Animal Manure Management Issues Conference. Round Rock, Texas. Sept, 29-30, 2009*. 37-44
- Banyan, B., E. A. Caraway, M. B. Rhoades, **K. D. Casey**, T. B. Brown, and D. B. Parker. 2009. Additive and synergistic odor effects of volatile organic compounds at animal feeding operations. In *Proceedings of Texas Animal Manure Management Issues Conference. Round Rock, Texas. Sept, 29-30, 2009*. 69-74.
- Caraway, E. A., M. B. Rhoades, **K. Casey**, D. B. Parker, B. Baniya, and T. B. Brown. 2009. VOC emissions from a beef cattle feedyard following a rainfall event. In *Proceedings of Texas Animal Manure Management Issues Conference. Round Rock, Texas. Sept, 29-30, 2009*. 101-110.
- Casey, K. D.**, L. A. McDonald, and J. M. Sweeten. 2009. Water usage at a beef cattle feedyard in Texas. ASABE Paper No. 097040. St. Joseph, Mich.: ASABE.
- Casey, K. D.**, M. B. Rhoades, D. B. Parker, L. A. McDonald, and J. P. Spears. 2009. Hydrogen sulfide emissions from a beef cattle feedyard following a rainfall event. ASABE Paper No. 097061. St. Joseph, Mich.: ASABE.

- Todd, R. W., N. A. Cole, D. B. Parker, and **K. D. Casey**. 2008. Continuously measured annual ammonia emissions from southern High Plains beef cattle feedyards. In *Proceedings of ASA-CSSA-SSSA Joint Annual Meeting 2008*. Houston, Texas, October 5-9, 2008. [Abstract & Poster]
- Heber, A. J., Bogan, B. W., Ji-Qin Ni, T. T. Lim, J. C. Ramirez-Dorronsoro, E. L. Cortus, C. A. Diehl, S. M. Hanni, C. Xiao, **K. D. Casey**, C. A. Gooch, L. D. Jacobson, J. A. Koziel, F. M. Mitloehner, P. M. Ndegwa, W. P. Robarge, L. Wang, and R. Zhang. 2008. Methods of monitoring barn emissions in the national air emissions monitoring study. In *Proceedings of The Symposium on Air Quality Measurement Methods and Technology*. Chapel Hill, NC, November 3-6, 2008. CD-ROM, 530-534. Pittsburgh, Penn.: A&WMA. [Extended Abstract]
- Upadhyay, J. K., B. W. Auvermann, J. Bush, and **K. D. Casey**. 2008. A comparison of wet-deposition data from new NTN site TX43 “Canonceta” with nearby historical trends using three special interpolation techniques. *National Atmospheric Deposition Program – 2008 Annual Meeting and Scientific Symposium*. Madison, Wisconsin, October 14-16, 2008. [Abstract & Poster]
- Wheeler, E. F., **K. D. Casey**, R. S. Gates, H. Xin, and Y. Liang. 2008. Litter management influence on ammonia gas emission from broiler houses. In *Proceedings of Poultry Waste Management Symposium 2008*. Des Moines, Iowa, October 21-23, 2008. [Abstract & Poster]
- Casey, K. D.**, M. B. Rhoades, D. B. Parker, and L. A. McDonald. 2008. Hydrogen sulfide emissions from a Texas beef cattle feedyard. ASABE Paper No. 085169. St. Joseph, Mich.: ASABE.
- Parker, D. B., E. A. Caraway, M. B. Rhoades, N. A. Cole, R. Todd, C. Donnell, J. Spears, and **K. D. Casey**. 2008. Effect of wind tunnel air velocity on VOC emission rates from CAFO manure and wastewater. ASABE Paper No. 083897. St. Joseph, Mich.: ASABE.
- Caraway, E. A., D. B. Parker, **K. D. Casey**, M. J. Olsen, C. Donnell, M. B. Rhoades, and J. P. Spears and. 2008. Diel VOC emissions from a beef cattle feedyard. ASABE Paper No. 084136. St. Joseph, Mich.: ASABE.
- Wheeler, E. F., **K. D. Casey**, R. S. Gates, H. Xin, Y. Liang, and P. A. Topper. 2008. Litter management strategies in relation to ammonia emissions from floor-raised birds. In *Proceedings of Mitigating Air Emissions from Animal Feeding Operations*. Des Moines, Iowa, May 19-21, 2008. Ames, Iowa.: ISU.
- Liang, Y., H. Xin, H. Li, R. S. Gates, E. F. Wheeler, **K. D. Casey**, B. R. Behrends, and D. J. Burnham. 2008. Dietary manipulation to reduce ammonia emission from high-rise layer houses. In *Proceedings of Mitigating Air Emissions from Animal Feeding Operations*. Des Moines, Iowa, May 19-21, 2008. Ames, Iowa.: ISU.
- Parker, D. B., Z. Buser, E. Caraway, M. Rhoades, M. Olsen, **K. D. Casey**, J. Spears, and G. Green. 2007. VOC concentrations downwind of beef feedlots during intense odour events. In *Proceedings of 14th IUAPPA World Congress, CDROM, Brisbane, Australia, August 9-13*.: CASANZ.
- Runge, G. A., P. J. Blackall, and **K. D. Casey**. 2007. Chicken Litter – Issues associated with sourcing and use. RIRDC Publication No 07/035. Kingston, ACT, Australia. Rural Industries Research and Development Corporation. 63p.
- Gates, R. S., **K. D. Casey**, E. F. Wheeler, and H. Xin. 2006. Estimating annual NH₃ emissions from U.S. broiler facilities. In *Proceedings of Workshop on Agricultural Air Quality: State of the Science*, Potomac, MD, June 5-8.: ESA. pp. 186-188.

- Casey, K. D.**, D. B. Parker, J. M. Sweeten, B. W. Auvermann, S. Mukhtar, and J. A. Koziel. 2006. Hydrogen sulfide emissions from Southern Great Plains beef feedlots: A review. In *Proceedings of Workshop on Agricultural Air Quality: State of the Science, Potomac, MD, June 5-8.*: ESA. pp. 205-207.
- Casey, K. D.**, R. S. Gates, A. J. Pescatore, H. Xin, Y. Liang, and E. F. Wheeler. 2006. Comparison of measured estimates of annual ammonia emissions from poultry production facilities with mass balance modeling approaches. In *Proceedings of Workshop on Agricultural Air Quality: State of the Science, Potomac, MD, June 5-8.*: ESA. pp. 542-545.
- Singh, A., W. D. King, **K. D. Casey**, R. S. Gates, and T. Pescatore. 2006. Effect of urease inhibitor on ammonia emissions in layer houses. In *Proceedings of Workshop on Agricultural Air Quality: State of the Science, Potomac, MD, June 5-8.*: ESA. pp. 1138-1139.
- Casey, K. D.**, R. S. Gates, A. Singh, A. J. Pescatore, E. F. Wheeler, H. Xin, and Y. Liang. 2006. Managing litter to reduce ammonia emissions from broiler chicken houses in the U.S.A. In *Proceedings of Poultry Information Exchange 2006*, Surfers Paradise, Gold Coast, Australia, April 2-4.: PIX Association Inc.
- Singh, A., **K. D. Casey**, A. J. Pescatore, and R. S. Gates. 2005. Efficacy of Urease Inhibitor to reduce ammonia emissions in broiler litter. In *Proceedings of 2005 Animal Waste Management Symposium*. CD-ROM. Raleigh, N.C.: National Center for Manure and Animal Waste Management.
- Singh, A., **K. D. Casey**, A. J. Pescatore, R. S. Gates, M. J. Ford, and W. D. King. 2005. Urease inhibitor: A novel approach to reduce ammonia emissions in poultry litter. ASAE Paper No. 054050. St. Joseph, Mich.: ASAE.
- Pescatore, A. J., **K. D. Casey**, R. S. Gates, M. J. Ford, E. F. Wheeler, and H. Xin. 2004 Ammonia emissions from broiler houses during three consecutive flocks. In *Proc. XXII World's Poultry Congress*, Istanbul, Turkey.: World's Poultry Science Association.
- Pescatore, A. J., M. J. Ford, **K. D. Casey**, and R. S. Gates. 2004 Variation in the capacity of ventilation fans in broiler houses as determined by fan analysis numeration system. In *Proc. XXII World's Poultry Congress*, Istanbul, Turkey.: World's Poultry Science Association.
- Wheeler, E. F., H. Xin, R. S. Gates, Y. Liang, **K. D. Casey**, J.L. Zajaczkowski, and P.A. Topper. 2004. Air quality from layers, turkeys and broilers. In *Proceedings 2004 National Poultry Waste Management Symposium, Memphis, TN. Editors J.B. Hess and K.D. Roberson. October 24-26.* pp. 121-126.
- Wheeler, E. F., H. Xin, R. S. Gates, **K. D. Casey**, J. S. Zajaczkowski, P.A. Topper, Y. Liang, and D. Brown. 2004. Comparison of methods to estimate ventilation rate in commercial broiler houses. In *Book of Abstracts, AgEng Leuven 2004, Engineering the Future. Leuven, Belgium, September 12-16.* pp 548-549. Full paper on conference CD.
- Liang, Y., H. Xin, E. F. Wheeler, R. S. Gates, H. Li, J. S. Zajaczkowski, P. Topper, **K. D. Casey**, and F. J. Zajaczkowski. 2004. Ammonia emission for US poultry houses: Laying hens. ASAE Paper No. 044104. St. Joseph, Mich.: ASAE.
- Wheeler, E. F., **K. D. Casey**, R. S. Gates, J. L. Zajaczkowski, P. A. Topper, H. Xin, Y. Liang, and D. Brown. 2004. Seasonal ammonia emission variation among twelve U.S. broiler houses. ASAE Paper No. 044105. St. Joseph, Mich.: ASAE.

- Casey, K. D.**, M. Dunlop, D. Duperouzel, and M. G. Atzeni. 2004. Evaluation of the effect of thermal gradients within Australian anaerobic lagoons on lagoon activity ratio. ASAE Paper No. 044062. St. Joseph, Mich.: ASAE.
- Wheeler, E. F., H. Xin, R. S. Gates, Y. Liang, **K. D. Casey**, J. L. Zajaczkowski, and P. A. Topper. 2004. Update on air emission numbers: ammonia, hydrogen sulfide and particulates. In *Proceedings of North Atlantic Poultry Health & Management Conference, Grantsville PA. May 11-12, 2004*.
- Gates, R. S., **K. D. Casey**, E. F. Wheeler, H. Xin, A. J. Pescatore, J. L. Zajaczkowski, J. R. Bicudo, P. A. Topper, Y. Liang, and M. Ford. 2004. Broiler house ammonia emissions: U.S. baseline data. In *Proceedings of Multi-State Poultry Feeding and Nutrition and Health and Management Conference and Degussa Corporation's Technical Symposium, Indianapolis, IN. May 25-27, 2004*.
- Hudson, N., D. Duperouzel, S. Lowe, G. Galvin, and **K. Casey**. 2003. Laboratory scale assessment of agrochemical sprays using dynamic olfactometry. In *Proceedings of the National Environmental Conference*. CDROM, Brisbane, Australia: IE Aust.
- Casey, K. D.**, R. S. Gates, E. F. Wheeler, J. S. Zajaczkowski, P. A. Topper, H. Xin, and Y. Liang. 2003. Ammonia emissions from broiler houses in Kentucky during winter. In *Proceedings of International Symposium on Gaseous and Odour Emissions from Animal Production Facilities. Horsens, June 1-4, 2003*. pp 213-220, Horsens, Denmark: CIGR.
- Liang, Y., H. Xin, A. Tanaka, S. H. Lee, H. Li, E. F. Wheeler, R. S. Gates, J. S. Zajaczkowski, P. A. Topper, and **K. D. Casey**. 2003. Ammonia emissions from layer houses in Iowa. In *Proceedings of International Symposium on Gaseous and Odour Emissions from Animal Production Facilities. Horsens, June 1-4, 2003*. pp 203-212, Horsens, Denmark: CIGR.
- Wheeler, E. F., J. S. Zajaczkowski, P. A. Topper, R. S. Gates, H. Xin, **K. D. Casey** and Y. Liang. 2003. Ammonia emissions from broiler houses in Pennsylvania during cold weather. In *Proceedings of International Symposium on Gaseous and Odour Emissions from Animal Production Facilities. Horsens, June 1-4, 2003*. pp 221-228, Horsens, Denmark: CIGR.
- Blackall, P. J., G. A. Runge, and **K. D. Casey**. 2002. Pathogens and poultry litter – A risk assessment approach. In *Proceedings of the 7th WPSA Asian Pacific Federation Conference*. , Australia: WPSA.
- Hudson, N., **K. Casey**, D. Duperouzel, S. Lowe, and A. Gies. 2002. Assessment of supported permeable covers for reduction of odour emissions from anaerobic ponds. In *Proceedings of the Enviro 2002 Odour Conference*. CD-ROM, Eastwood, Australia: CASANZ.
- Galvin, G., S. Lowe, M. Atzeni, **K. Casey**, and E. McGahan. 2002. Spatial variability of odour emissions from anaerobic piggery ponds. In *Proceedings of the Enviro 2002 Odour Conference*. CD-ROM, Eastwood, Australia: CASANZ.
- Galvin, G., **K. D. Casey**, E. J. McGahan, S. A. Lowe, and M. G. Atzeni. 2002. Effect of season and loading rate on odour emission from piggery anaerobic lagoons in Australia. ASAE Paper No. 024082. St. Joseph, Mich.: ASAE.
- Xin, H., A. Tanaka, T. Wang, R. S. Gates, E. F. Wheeler, **K. D. Casey**, A. J. Heber, J. Ni, and T. Lim. 2002. A portable system for continuous ammonia measurement in the field. ASAE Paper No. 024168. St. Joseph, Mich.: ASAE.

- Wheeler, E. F., R. S. Gates, H. Xin, J. Smith Zajackowski, P. A. Topper, and **K. D. Casey**. 2002. Field estimation of ventilation capacity using FANS. ASAE Paper No. 024125. St. Joseph, Mich.: ASAE.
- Gates, R. S., J. D. Simmons, **K. D. Casey**, T. J. Greis, H. Xin, E. F. Wheeler, C. L. King, and J. R. Barnett. 2002. Fan assessment numeration system (FANS) design and calibration specifications. ASAE Paper No. 024124. St. Joseph, Mich.: ASAE.
- Hudson, N., **K. Casey**, S. Melvin, and P. Nicholas. 2001. Laboratory-scale investigation of supported permeable covers for the management of odour emissions from anaerobic waste ponds. In: *Proceedings of the 1st IWA International Conference on Odour and VOCs: Measurement, Regulation and Control Techniques*. pp 567-578, Mar 25-28, Sydney, NSW. The University of New South Wales, Sydney, NSW.
- van Sliedregt, H., **K. D. Casey**, and E. J. McGahan. 2001. Cleaner production: Waste characterisation and minimisation, In: *Proceedings of Production and Environmental Monitoring Workshop*, Paper No. PEM009. 17-19 Oct, University of New England, Armidale, NSW.
- Casey, K. D.**, and G. Galvin. 2001. Measuring odour, dust and gas emissions, In: *Proceedings of Production and Environmental Monitoring Workshop*, Paper No. PEM015. 17-19 Oct, University of New England, Armidale, NSW.
- Casey, K. D.** 2001. Emissions inventories and their implications for intensive livestock production. In: *Proceedings of 1st International Conference on Greenhouse Gases and Animal Agriculture*, November 7-11, Obihiro, Japan.
- Skerman, A. S., **K. D. Casey**, and E. J. McGahan. 2000. Analysis of complaint records for Queensland cattle feedlots. In: *Proceedings of Enviro 2000 – Odour Conference*. Apr 9-13, Sydney, NSW. CASANZ, Eastwood, NSW 2122 Aust.
- McGahan, E. J., **K. D. Casey**, P. J. Nicholas, and A. S. Skerman. 2000. Odour modelling used to improve landuse planning for piggeries. In: *Proceedings of Enviro 2000 – Odour Conference*. Apr 9-13, Sydney, NSW. CASANZ, Eastwood, NSW 2122 Aust.
- van Sliedregt, H., **K. D. Casey**, and E. J. McGahan. 1999. “Cleaner production: Waste characterisation and minimisation”, In: *Proceedings of Production and Environmental Monitoring Workshop*, Paper No. PEM007. 17-19 Mar, University of New England, Armidale, NSW.
- McGahan, E. J., and **K. D. Casey**. 1998. “Use of a modified version of the DAMP model to define the size of pig production enterprises (Standard Pig Units)”. Presented at the 1998 ASAE Annual International Meeting, Paper No. 98-4126. St. Joseph, Mich.: ASAE.
- McGahan, E. J., **K. D. Casey**, and T. A. Streeten. 1998. “Environmental management practices of piggeries in Queensland, Australia”. Presented at *the Animal Production Systems and Environment Conference*, Des Moines, IA, July 1998.
- Casey, K. D.**, and P. J. Nicholas. 1998. Piggery odours - Current research, what solutions? In: *Proceedings of National Pig Environmental Conference*, Gold Coast, October 1998.
- Casey, K. D.**, and P. J. Nicholas. 1998. Piggery odours - Current research, what solutions? In: *Proceedings of Pan Pacific Pork Expo Seminar*, Brisbane, October 1998.
- Casey, K. D.**, P. J. Nicholas, and V. H. James. 1998. Establishment of an automated meteorological network in the Darling Downs of Queensland. In: *Proceedings of 14th International Clean Air and Environment Conference*, pp 406-410, Melbourne, October 1998.

- Casey, K. D.**, C. L. Lunney, P. J. Watts, and R. W. Tucker. 1997. "Odour emissions from feedlot retention ponds following heavy rainfall". In: *Proceedings of the National Workshop on Odour Measurement Standardisation*, Sydney, NSW. Ed J Jiang (UNSW: Sydney).
- Van Sliedregt, H, **K. D. Casey**, and E. J. McGahan. 1997. "A review of waste minimisation through environmental nutrition". In: *Proceedings of the Production and Environmental Monitoring Workshop*. Paper No. PEM011. 17-19 March. University of New England, Armidale, NSW.
- Casey, K. D.**, E. J. McGahan, M. G. Atzeni, E. A. Gardner, and R. Frizzo. 1996. "PIGBAL Version 1.0. A nutrient mass balance model for intensive piggeries". Queensland Department of Primary Industries.
- Gardner, E. A., M. G. Atzeni, E. J. McGahan, A. Vieritz, and **K. D. Casey**. 1996. "MEDLI - a computer model to help resolve environmental conflict in intensive rural industries". In: *Proceedings of the Resolving Environmental Conflict conference*. 17pp. November. Brisbane, QLD. Institution of Engineers Australia.
- Gardner, T., A. Vieritz, M. Atzeni, R. Beecham, M. Littleboy, **K. Casey**, P. Sharma, T. Farley, R. Davis, E. McGahan, and P. Dillon. 1996. "MEDLI: A computer based design model for sustainable effluent disposal from intensive rural industries using land irrigation". In: *Proceedings of 14th Land Treatment Collective Meeting -Land Application of Wastes in Australia and New Zealand: Research and Practice*. (Eds. P.J. Polglase & W.M. Tunningley), pp. 114-124. 30 Sept-1 Oct. Canberra, ACT.
- Skerman, A. G., **K. D. Casey**, A. J. Gilloway, and W. D. Williamson. 1996. "The impact of technology on the Queensland cattle feedlot industry as measured by the incidence of public complaints". In: *Proceedings of Conference on Engineering in Agriculture and Food Processing*, Paper SEAg 96/020.
- Atzeni, M. G., E. J. McGahan, and **K. D. Casey**. 1995. "Modelling sustainable piggery effluent disposal". In: *Proceedings of the Queensland Pig Research and Development Seminar*, pg 44, Gatton, QLD. Queensland Pig Consultancy Group,
- Casey, K. D.**, and E. A. Gardner. 1995. "Modelling the utilisation of liquid effluent from feedlots". In: *Proceedings of Feedlot Waste Management Conference*, Royal Pines Resort, Gold Coast, Australia, June 12-14. nn pp. Department of Primary Industries Queensland.
- Davis, J. R., C. Moffit, P. Sharma, D. Zhou, T. Farley, E. Gardner, **K. Casey**, M. Atzeni, and A. Vieritz. 1995. "Modelling effluent disposal from intensive rural industries". In: *Proceedings of Australian Water and Waste Water Association Conference*, Sydney.
- Gardner, E. A., and **K. D. Casey**. 1995. "Sustainable reuse of feedlot manure on agricultural lands". In: *Proceedings of Feedlot Waste Management Conference*, Royal Pines Resort, Gold Coast, Australia, June 12-14, 1995. 13 pp. Department of Primary Industries Queensland.
- Smith, T., M. Atzeni, and **K. Casey**. 1995. "Review of waste estimation, pre-treatment and pond design for intensive piggeries". Milestone Report No.2 to the Pig Research and Development Corporation. Queensland Department of Primary Industries.
- Walsh, P. A., C. M. Lunney, and **K. D. Casey**. 1995. "The impact of odours on feedlot neighbours". In: *Proceedings of Feedlot Waste Management Conference*, Royal Pines Resort, Gold Coast, Australia, June 12-14, 1995. 10 pp. Department of Primary Industries Queensland.

- Watts, P. J., E. A. Gardner, R. W. Tucker, and **K. D. Casey**. 1994. "Mass-balance approach to design of nutrient management systems at cattle feedlots". In: *Proceedings of the Great Plains Animal Waste Conference on Confined Animal Production and Water Quality*. pp 27-33. 19-21 Oct. Denver, Colorado. Great Plains Agricultural Council Publication Number 151.
- Watts, P. J., R. W. Tucker, and **K. D. Casey**. 1994. "Water system design". In Watts, P.J. and Tucker, R.W. (Eds.), *Designing Better Feedlots*. Conference and Workshop Series QC94002, Department of Primary Industries, Queensland.
- Watts, P. J., R. W. Tucker, E. A. Gardner, **K. D. Casey**, and S. C. Lott. 1994 "Characteristics of feedlot waste". In Watts, P.J. and Tucker, R.W. (Eds.), *Designing Better Feedlots*. Conference and Workshop Series QC94002, Department of Primary Industries, Queensland.

White Papers

- Xin, H., H. Li, R. Gates, R. Burns, and **K. Casey**. 2010. Methodologies and protocols for analysis of raw data to minimize uncertainty of resultant aerial emissions estimation. A white paper submitted to the *USDA-NRCS Agricultural Air Quality Taskforce. 2010*.
- Wheeler, E.F., D. Meyer, P. Martin, D. Schmidt, W. Powers, **K. Casey**, R. Stowell, S. Mukhtar, L. Jacobson, P. Bredwell, A. Stokes, D. Shelmidine, T. Applegate, B. Weinheimer, and G. Zwicke. 2010. Recommended units and supporting data for standardized reporting of air emissions from animal agriculture. A white paper submitted to the *USDA-NRCS Agricultural Air Quality Taskforce. 2010*.
- Sweeten, J., B. Auvermann, S. Mukhtar, N. Cole, R. DeOtte, D. Parker, B. Weinheimer, **K. Casey**, C. Parnell, R. Todd, B. Shaw, and J. Upadhyay. 2007. Natural Resource Management: Air Quality, Water Quality & Manure Management. High Plains Livestock 2027. Shaping the Future of Food Animal Production. Amarillo Civic Center, September 5-6, 2007.
- Parker D., **K. Casey**, A. Cole, J. M. Sweeten, B. W. Auvermann, M. Rhodes, S. Mukhtar, R. Todd, C. Rogers, J. Silva, T Moss, C. Ponce, R. Pulikanti, and J. Glidden. 2005. Hydrogen Sulfide Emissions from Open-lot Beef Cattle Feedyard Pens and Ponds. A White Paper prepared for presentation to the Industry Advisory Committee of the USDA-CSREES Federal Air Quality Initiative, December 2005.

Theses and Dissertations

- McDonald M. D. 2018. Impact of Conservation Management Practices on Greenhouse Gas Emission in Semi-Arid, Intensively Cropped Regions of Texas (M.S. Thesis). Texas Tech University. [Committee Member]
- Sharma. S. 2017. Carbon, Evapotranspiration and Energy Balance Dynamics of Potential Bioenergy Crops Compared to Cotton in the Southern Great Plains (Ph.D. dissertation). Texas A&M University. [Committee Member]
- Carraway, E. A. 2013. The effect of odorous VOCs from beef cattle feedyard and assessment of odorous VOC detection limits from community members (Ph.D. dissertation). West Texas A&M University. [Committee Member]

Extension Publications

- Auvermann, B. W., and **K. D. Casey**. 2011. Feedyard dust control in an epic Panhandle drought, 2010-2011. Bulletin SP-417, Texas AgriLife Extension Service, College Station, TX.

Preece, S. L. P., **K. D. Casey**, and B. W. Auvermann. 2012. Hydrogen Sulfide Emissions from Open/Dry-Lot Cattle-Feeding Operations. Bulletin No E-620, Texas A&M AgriLife Extension Service, College Station, TX.

Sakirkin, S. L. P., **K. D. Casey**, and B. W. Auvermann. 2012. Hydrogen Sulfide Emissions from Open/Dry-Lot Cattle-Feeding Operations. LPELC Information Sheet.

Professional Membership and Association

American Society of Agricultural and Biological Engineers [Member since 1981]

Clean Air Society of Australia and New Zealand [Member since 1996]

Air and Waste Management Association [Member since 2002]

American Society of Heating Refrigerating and Air-Conditioning Engineers [Member since 2004]

American Society of Agronomy [Member since 2014]

Soil Science Society of America [Member since 2014]

Awards

- Federal Laboratory Consortium for Technology Transfer, Mid Continent Region: Notable Technology Development –Winner (Project Team Member) [2010]
- Texas Environmental Excellence Awards: Agriculture –Winner (Project Team Member) [2010]
- Texas Environmental Excellence Awards: Agriculture –Finalist (Project Team Member) [2009]
- ASABE Honorable Mention Paper Award [2009] - 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. <http://dx.doi.org/10.13031/2013.24215>
- Vice Chancellor’s Award in Excellence – Member of a Research Team “Air Quality: Reducing Feedlot Emissions Team” [2008]
- Pig Research and Development Corporation Scholarship to undertake Master of Science degree at Clemson University, South Carolina, USA. [1991]

Professional and Personal Development

- American Society of Agricultural and Biological Engineers (ASABE), Annual International Meetings (1990, 1991, 2002-2018)
- ASA, CSSA, & SSSA International Annual Meetings, (2013-2018)
- Air & Waste Management Association (AWMA), Annual Conference & Exhibition (2001, 2004, 2005, 2009)
- Air & Waste Management Association (AWMA), Symposium on Air Quality Measurement Methods and Technology (2002)
- Air & Waste Management Association (AWMA), Climate Change: Impacts, Policy, and Regulation Conference. Herndon, VA. 2013.

- International Union of Air Pollution Prevention and Environmental Protection Associations (IUAPPA) World Congress, Brisbane Australia, 2007.
- Greenhouse Gases & Animal Agriculture Conference, Melbourne, Australia. 2016.
- Greenhouse Gases & Animal Agriculture Conference, Dublin, Ireland. 2013.
- Greenhouse Gases & Animal Agriculture Conference, Obihiro, Japan. 2001.
- RAMIRAN 2017 Conference, Wexford, Ireland. 2017.
- CIGR: International Conference of Agricultural Engineering, Valencia, Spain. 2012.
- CIGR: 18th World Congress, Beijing, China. 2014.
- ADSA, ASAS and CSAS Joint Annual Meeting, Kansas City, Missouri. 2014
- American Society of Agricultural and Biological Engineers (ASABE) International Symposium on Air Quality and Manure Management for Agriculture, Dallas, Texas. 2010.
- American Society of Agricultural and Biological Engineers (ASABE) International Conference on Air Pollution from Agricultural Operations, Des Moines, Iowa. 2000.
- American Society of Agricultural and Biological Engineers (ASABE) International Conference on Air Pollution from Agricultural Operations, Research Triangle Park, NC. 2003.
- International Conference on Ammonia in Agriculture: Policy, Science, Control and Implementation, Wageningen, The Netherlands. 2007.
- International Symposium on Gaseous and Odour Emissions from Animal Production Facilities. Horsens, Denmark. 2003.
- Workshop on Agricultural Air Quality: State of the Science, Potomac, MD, 2006.
- Mitigating Air Emissions from Animal Feeding Operations. Des Moines, Iowa. 2008.
- American Society of Agricultural Engineers (ASAE) Seventh International Symposium on Agricultural and Food Processing Wastes. Chicago, IL, 1995.
- World Congress on Integrated Crop-Livestock-Forestry Systems, Brasilia, Brazil. 2015.
- Waste to Worth 2015, Advancing Sustainability in Animal Agriculture, Seattle, WA. 2015.
- Waste to Worth 2017, Third International Conference on Livestock & Poultry Environmental Quality, Raleigh, NC. 2017.
- Calpuff Training Course. TRC. Boulder, CO. 2011.
- CR1000/Loggernet Training Course. Campbell Scientific, Inc. Logan, UT. 2009.
- GC/Mass Spectroscopy: Fundamentals, Applications, Troubleshooting Short Course. American Chemistry Society. 2006.
- Mathcad Training Course. Mathsoft Engineering & Education, Inc. 2006.
- Texas A&M AgriLife. Emerging Leaders Conference. College Station, TX. 2014.

Grants and Contracts

1. Co-PI (PI: Keri Norman) on Assessing Antimicrobial Resistance associated with Antimicrobial Resistive Determinants in Cattle Feedyard Dust. USDAS-NIFA. \$1,199,125.
2. PI on *Construction of a 32-port bidirectional multiplexer to support flask studies of manure gas emissions – a supplemental request.* Texas Cattle Feeders Association. \$5,000.
3. PI on *Nitrous Oxide Emissions from Texas Beef Cattle Feedlots – Reconfiguration of OP-FTIR System to facilitate field research program.* Texas Cattle Feeders Association. \$5,000.
4. PI on *Improving wastewater utilization and water use efficiency in high plains dairies.* Ogallala Aquifer Program. \$58,108.
5. PI on *Modelling wastewater utilization and water use efficiency in high plains dairies.* Ogallala Aquifer Program. \$41,070.
6. Co-PI (PI: Erick Butler) on *Electrocoagulation treatment of feedlot runoff wastewater.* Ogallala Aquifer Program. \$32,941.
7. Co-PI (PI: Nithya Rajan) on *Impacts of biofuel induced land use change on energy, water, carbon and greenhouse gas balances of the Southwestern U.S. Cotton Belt region.* USDA-NIFA Sustainable Bioenergy - Environmental Implications of Direct and Indirect Land Use Change. \$499,930.
8. Co-PI (PI: Robert DeOtte) on *Overcoming impediments to use of water from feedyard runoff retention structure for dust mitigation activities.* Ogallala Aquifer Program. \$75,000.
9. Co-PI (PI: John Sweeten) on *Air Quality: Odor, Dust and Gaseous Emissions from Concentrated Animal Feeding Operations in the Southern Great Plains.* USDA-CREES. \$1,016,193.
10. Co-PI (PI: Robert Hagevoort) on *An environmental reality check: securing critical scientific baseline data on dairy economic, greenhouse gas emission, carbon footprint & water use impacts in NM & the SW through the SGPDC.* USDA-CREES. \$219,087.
11. Co-PI (PI: Robert Hagevoort) on *Producer Driven Dairy Research and Extension Projects in New Mexico and the Southwest through the Southern Great Plains Dairy Consortium.* USDA-CREES. \$325,734.
12. Co-PI (PI: Saqib Mukhtar) on *Evaluation of Electrostatic Particle Ionization (EPI) and BioCurtain (BC) Technologies to Reduce Dust, Odor and other Pollutants from Broiler Houses.* TSSWCB. \$169,624.
13. Co-PI (PI: Galen Erikson) on *Greenhouse gas emissions and nitrogen cycling from beef production systems: Effect of climate, season, and mitigation strategies as well as policy implications.* USDA-NIFA Planning Grant. \$50,000.
14. PI on *National Air Emissions Monitoring Study – Pork Subcontract: OK4B Site.* Agricultural Air Research Council. \$239,425.
15. PI on *Freshwater Usage and Wastewater Utilization at Texas High Plains Open Corral Dairies.* Ogallala Aquifer Program. \$60,000.
16. Co-PI (PI: Robert DeOtte) on *Acquisition of a Global Sizing Velocimeter, Aerodynamic Particle Sizer, and Tethersonde Array to Advance Aerosol Technology Engineering and Science on the High Plains.* NSF - Major Research Instrumentation Program. \$469,671.
17. PI on *Nitrous Oxide Emissions from Texas Beef Cattle Feedlots – Upgrade of Varian 3800 Gas Chromatograph to support field research program.* Texas Cattle Feeders Association. \$6,000.
18. PI on *Peak Water Demand in Texas Beef Cattle Feedlots.* Texas Cattle Feeders Association. \$2,816.