

Kevin Heflin

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EXPERIENCE

Extension Associate, Texas Cooperative Extension, July 2004-Present

Project manager for federally funded research and technology-transfer projects in agricultural air quality, animal waste management and biomass energy. Design and implement on-farm result demonstrations, collect applicable data, produce reports and coordinate educational activities pertaining to the grant. Supervision of student support staff.

Extension Assistant, Texas Cooperative Extension, April 2003-2004

Study the benefits or problems associated with composting large animal mortalities. Assisted on 3 federally funded air quality projects related to fugitive PM dust from animal agricultural. Project manager for a biomass energy project utilizing advanced feedlot biomass used in thermo-chemical conversion technologies.

Technician II, Texas Agricultural Experiment Station, Jan 2001-March 2003

Project manager for a biomass energy project utilizing advanced feedlot biomass used in thermo-chemical conversion technologies. Other projects included odor sampling, land applications of animal waste, composting, and large animal mortality composting.

Farm Demonstration Assistant, Texas Agricultural Extension Service, June 1998-Dec 2000

Provided assistance on 2 federally funded section 319 Water Quality projects that were aimed at reducing runoff from agriculture areas and implemented best management practices in these areas. There were 17 demonstration sites setup in the Texas Panhandle. Also included in these projects were land reclamation and riparian restoration.

Landscaping subcontractor (part-time) 1999-2003

Install and repair sprinkler systems, plant materials, and maintain commercial properties.

EDUCATION

West Texas A&M University, Canyon Texas. PhD Candidate in Systems Agriculture. 13 hours completed, 2006-Present.

West Texas A&M University, Canyon Texas. Masters of Science, Environmental Science. Thesis: *Combustion Characteristics of High and Low Phosphorus Partially Composted Cattle Manure Used in Co-Fire Combustion*. (Conferred May 2003). Chairman: Dr. David B. Parker.

Texas Tech University, Lubbock Texas. Bachelors of Science, Fish and Wildlife Management, Minor in Biology. (Conferred 1997)

ARTICLES, EXTENSTION PUBLICATIONS, AND ABSTRACTS

Sweeten, J.M., K. Heflin. *Beef Feedlot Manure Quality: Two-Year Variations in Combustion and Nutrient Properties*. International symposium on air quality and waste management for agriculture. Broomfield, Colorado. Sept 15-19, 2007.

Auvermann, B.W., S. Mukhtar and K. Heflin. *Composting large animal carcasses*. College Station, TX: Texas Cooperative Extension. Bulletin E-422. 2006.

Sweeten, J.M., K. Heflin, K. Annamalai, B.W. Auvermann, F.T. McCollum, and D.B. Parker. *Combustion Fuel Properties of Manure or Compost from Paved vs Un-paved Cattle feedlots*. ASABE paper #06-4143, ASABE annual international meeting, 2006.

Heflin, K., G.W. Marek, B.W. Auvermann. *Unconventional Carcass Compost Strategies (Recipes) Used to Dispose of Large Bovine Mortalities*. ASABE poster, paper #064063 (pending). ASABE annual international meeting, 2006.

Heflin, K., B.W. Auvermann, G.W. Marek, Maisonnave. *Preliminary Evaluation of a Remotely Controlled Platform for Ultrasonic Measurement of Lagoon Sludge Volume*. ASABE poster, paper #054088 (pending). ASABE annual international meeting, 2005.

Auvermann, B.W., N. Hiranuma, K. Heflin, G.W. Marek. *Open-Path Transmissometry for Measurement of Visibility Impairment by Fugitive Emissions from Livestock Facilities*. ASABE paper #044010. ASABE annual international meeting, 2004.

Marek, G.W., T. Marek, K. Heflin, B.W. Auvermann. *Determination of Feedyard Evaporation Using Weighing Lysimeters*. ASABE paper #044014. ASABE annual international meeting, 2004.

Heflin, K., B.W. Auvermann, W.C. Rogers, G.W. Marek. *Evaluation of a Water Curtain for Edge-of-Feedyard Suppression of Fugitive Dust*. ASABE paper #044048. ASABE/CSAE annual international meeting, 2004.

Mukhtar, S., B.W. Auvermann, K. Heflin, C.N. Boriack. *A Low Maintenance Approach to Large Carcass Composting*. ASABE paper #032263. ASABE annual international meeting, 2003.

Annamalai, K, Thein, B., Sweeten, J.M., Heflin, K., and Green, L.W., *Feedlot Manure as Reburn Fuel for NOx reduction in Coal Fired Power Plants*. 3rd International Symposium on Combustion on Agricultural Air Pollution, Raleigh, NC, Oct 12-15, 2003.

Annamalai, K., J.M. Sweeten, S. Mukhtar, B. Thein, G. Wei, S. Priyadarsan, S. Arumugam, and K. Heflin. *Co-firing Coal: Feedlot and Litter Biomass Fuels in Pulverized Fuel and Fixed Bed Burners*. Final DOE report, DOE-Pittsburgh Contract #40810. June 2003.

Heflin, K. J.M. Sweeten, L.W. Greene, K. Annamalai, B.W. Auvermann, B. Thein. *Combustion Characteristics of High and Low Phosphorus Partially Composted Cattle Manure Used in Co-Fire Combustion*. ASABE paper # 026087. ASABE annual international meeting, 2002.

Sweeten, J.M., K. Annamalai, K. Heflin, M. Freeman, *Cattle Feedlot Manure Quality for Combustion with Coal/Manure Blends*. ASABE paper #024092. ASABE annual international meeting/ CIGR XVth World Congress, Chicago, Illinois. July 28-31, 2002.

PROFESSIONAL DEVELOPMENT

Short course in Anaerobic Treatment of Agricultural Wastes, Hotel Fort Des Moines, Des Moines, Iowa. May 2007

Short course in Developing biogas systems at commercial farms in the United States, AgSTAR National Conference: Anaerobic Digestion for Livestock Waste Management and Energy Production. March 2004. St. Louis, Missouri.

Member of American Society of Agricultural and Biological Engineers (ASABE).

INTELLECTUAL PROPERTY

Sweeten, J. M., K. Annamalai, K. Heflin, B. W. Auvermann, L. A. McDonald, L. W. Greene and M. Freeman. 2007. "Method for the production of thermally advanced cattle feedlot biomass (TAFB) for use as fuel." Submitted to the United States Patent and Trademark Office, May 14, 2007.

CERTIFICATIONS

Certifications include: Hazardous waste operations and emergency response (HAZ-WOPER), Forklift operation certified by OSHA, and EPA certified in worker protection standards and pesticide handling.

AWARDS

Texans Caring for Texans co-recipient 2007