

Jay M. Ham

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Professional Positions:

2000-present Professor, Department of Agronomy, Kansas State University
1994-2000 Associate Professor, Department of Agronomy, Kansas State University
1990-1994 Assistant Professor, Department of Agronomy, Kansas State University

Education:

1990 Ph.D., Texas A&M University, Soil Science (Environmental Physics)
1986 M.S., Oklahoma State University, Agronomy (Soil Physics)
1984 B.S., Kansas State University, Agronomy

Research:

Environmental physics; micrometeorology; field-scale carbon budgets; surface-atmosphere exchange of momentum, energy, water vapor, and other trace gases; global climate change; instrumentation development; soil-plant-water relations, irrigation management; and the effect of concentrated animal feeding operations on air and water quality.

Teaching:

Graduate level courses in Micrometeorology and Environmental Instrumentation

Professional Memberships and Activities:

American Society of Agronomy, Soil Science Society of America, American Geophysical Union, American Society of Agricultural Engineers
Associate Editor for Agronomy Journal, 2002-present
Former Editorial Board Member for Agricultural and Forest Meteorology.
Former Chair, Division A3, Agroclimatology and Agronomic Modeling, American Society of Agronomy

National Awards:

Emil Truog Award, Soil Science Society of America. 1991.
Fellow, American Society of Agronomy. 2003.

Selected Research Grants:

Ham, J.M., G.M. Pierzynski, R.G. Maghirang, W.L. Hargrove, J.M. DeRouche. 2004-2007. Ammonia Losses From a Commercial Cattle Feedlot: Towards a Realistic NH₃ Emissions Inventory for the Great Plains. \$477,775.
Ham, J.M. 2001-2004. Development and Standardization of Methods for Measuring Seepage Rates From Anaerobic Lagoons at Animal Feeding Operations. EPA Water Quality. \$98,800.
Ham, J.M. 2002-2004. Consortium for Agricultural Soils Mitigation of Greenhouse Gases. Task 4: Measurement and modeling. USDA. \$185,000.
Owensby, C.E., J.M. Ham, and A.K. Knapp. 2001-2003. Landscape-Level Trace Gas Fluxes on Grazed and Ungrazed Tallgrass Prairie. Department of Energy. \$105,000.

Peer-Reviewed Publications (+50 total)

Ten most closely related to project :

- Ham, J.M., and E.J. Benson. 2004. On the construction and calibration of dual probe heat capacity sensors. *Soil Sci. Soc. Am. J.* (accepted)
- Ham, J.M., and J.L. Heilman. 2003. Experimental test of density and energy balance corrections on carbon dioxide flux as measured using open-path eddy covariance. *Agron. J.* 95:1393-1403.
- Ham, J.M. 2002. Uncertainty analysis of the water balance technique for measuring seepage from animal waste lagoons. *J. Environ. Qual.* 31:1370-1379.
- Bremer, D.J., and J.M. Ham. 2001. Measurement and modeling of soil CO₂ flux in a Temperate Grassland under Mowed and Burned Regimes. *Ecol. Applications.* 12:1318-1328.
- Bremer, D.J., L.M. Auen, J.M. Ham, and C.E. Owensby. 2001. Evapotranspiration in a prairie ecosystem: effect of grazing by cattle. *Agron J.* 93:338-348.
- Ham, J.M. 1999. Measuring evaporation and seepage losses from lagoons used to contain animal waste. *Transactions of the ASAE.* 42:1303-1312.
- Bremer, D.J., and J.M. Ham. 1999. Effect of spring burning on the surface energy balance in a tallgrass prairie. *Agric. Forest Meteorol.* 97:43-54.
- Bremer, D.J., Ham, J.M., and C.E. Owensby. 1996. Effect of Elevated Atmospheric CO₂ and Open-Top Chambers on Transpiration in a Tallgrass Prairie. *J. Environ. Qual.* 25:691-701.
- Ham, J.M., C.E. Owensby, P.I. Coyne, and D.J. Bremer. 1995. Fluxes of CO₂ and water vapor from a prairie ecosystem exposed to ambient and elevated atmospheric carbon dioxide. *Agric. Forest Meteorol.* 77:73-93.
- Ham, J.M., C.E. Owensby, and P.I. Coyne. 1993. Technique for measuring air flow and CO₂ exchange in large open-top chambers. *J. Environ. Qual.* 22:759-766.

Collaborators:

Collaborators and Co-Authors:

Auen, L.M., Kansas State University; Blair, J.M., Kansas State University; Bremer, D.J., Kansas State University; Brethour, J., Kansas State University; DeRouchey, J., Kansas State University; DeSutter, T.M., Kansas State University; Erickson, L.E., Kansas State University; Hargrove, W., Kansas State University; Heilman, J.L., Texas A&M; Johnson, L.C., Kansas State University; Kirkham, M.B., Kansas State University; Kluitenberg, G.J., Kansas State University; Knapp, A.K., Colorado State University; Lai, Chun Ta; Univ. of Utah; Maghirang, R., Kansas State University; Meisinger, J., USDA/ARS Beltsville, Md; Owensby, C.E., Kansas State University; Pierzynski, G.M., Kansas State University; Rice, C.W., Kansas State University; Sauer, T.J., USDA/ARS Soil Tilth Lab; J.R. Ehleringer, Univ. of Utah; E.J. Benson, Kansas State University; Heitman, J.L., Kansas State University.

Graduate Advisors:

Stone, J.F, Weeks, D, Elliot, R.; all from Oklahoma State University
Heilman, J.L., Van Bavel, C.H.M., Brown, K.W., Reddell, D.; all from Texas A&M Univ.

Former Students:

Senock, R.S.; University of Hawaii; Bremer, D.J., Kansas State University; Song, Y., Kansas State University; Tarara, J.M., USDA/ARA Washington State; Zhang, Jingxian, China; Newman, R.M; Kansas State University; Baum, K., Kansas State University; J.M. Basinger, Kansas State University.