

# Kansas Agricultural Experiment Station Research Reports

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Volume 0

Issue 3 *Director's Report (2001-2014)*

Article 5

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2011

## Director's report of research in Kansas 2010

Kansas State University. Agricultural Experiment Station

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Kansas State University. Agricultural Experiment Station (2011) "Director's report of research in Kansas 2010," *Kansas Agricultural Experiment Station Research Reports*: Vol. 0: Iss. 3. <https://doi.org/10.4148/2378-5977.3317>

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# Director's report of research in Kansas 2010

## **Abstract**

This report contains the title, author, and publication information for manuscripts published by station scientists.

## **Keywords**

Kansas; Agricultural Experiment Station; Research; Publications; Finances; Projects

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# DIRECTOR'S REPORT OF RESEARCH IN KANSAS 2010

JULY 1, 2009 TO JUNE 30, 2010



KANSAS AGRICULTURAL  
EXPERIMENT STATION



## **Letter of Transmittal**

Office of the Director

To the Honorable Sam Brownback, Governor of Kansas

It is my pleasure to transmit herewith the report of the Agricultural Experiment Station of the Kansas State University of Agriculture and Applied Science for the fiscal year ending June 30, 2010. This report contains the title, author, and publication information for manuscripts published by station scientists. The report was published only in electronic format.

Gary Pierzynski  
Interim Director, K-State Research and Extension  
and Interim Dean, College of Agriculture

## A Message from the Director

We are pleased to provide this 2010 Director's Report of Research in Kansas. The report is intended to inform you about our research programs under way and some of our accomplishments. K-State Research and Extension is dedicated to a safe and sustainable food and fiber system and to strong, healthy communities, families, and youth through integrated research, analysis, and education.

This report is produced and distributed in electronic format only. An annual report distributed via the Internet provides information in a more timely fashion, eliminates printing costs, and makes the report accessible to a broader audience.

The 2010 Director's Report of Research in Kansas provides a list of journal articles, station publications, and other published manuscripts from scientists in our departments, centers, fields, and associated programs.

The Agricultural Experiment Station is the research component of K-State Research and Extension. Our research programs provide the latest information used by our extension programs to address issues facing Kansas citizens.

Gary Pierzynski  
Interim Director, K-State Research and Extension  
and Interim Dean, College of Agriculture



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### Search Tips

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To minimize irrelevant items when searching for common names such as Smith, go to the page for the author’s unit (or use the unit bookmark) to start your search.

# Research Components of the Kansas Agricultural Experiment Station\*

(See map, p. 2)

## Academic Departments

### College of Agriculture

Agricultural Economics  
Agronomy  
Animal Sciences and Industry  
Communications  
Entomology  
Grain Science and Industry  
Horticulture, Forestry and Recreation Resources  
Plant Pathology

### College of Arts and Sciences

Biochemistry  
Biology  
Statistics

### College of Engineering

Biological and Agricultural Engineering  
Chemical Engineering

### College of Human Ecology

Apparel, Textiles, and Interior Design  
Hospitality Management and Dietetics  
Human Nutrition

### College of Veterinary Medicine

Anatomy and Physiology  
Clinical Sciences  
Diagnostic Medicine/Pathobiology  
Veterinary Diagnostic Lab

## Research Centers

Agricultural Research Center–Hays  
Horticulture and Forestry Research-Extension Center  
John C. Pair Horticultural Center  
Northwest Research-Extension Center  
Southeast Agricultural Research Center  
Southwest Research-Extension Center

## Experiment Fields

East Central - Ottawa  
Kansas River Valley - Rossville, Silver Lake  
North Central - Belleville  
Pecan Field - Chetopa  
South Central - Hutchinson

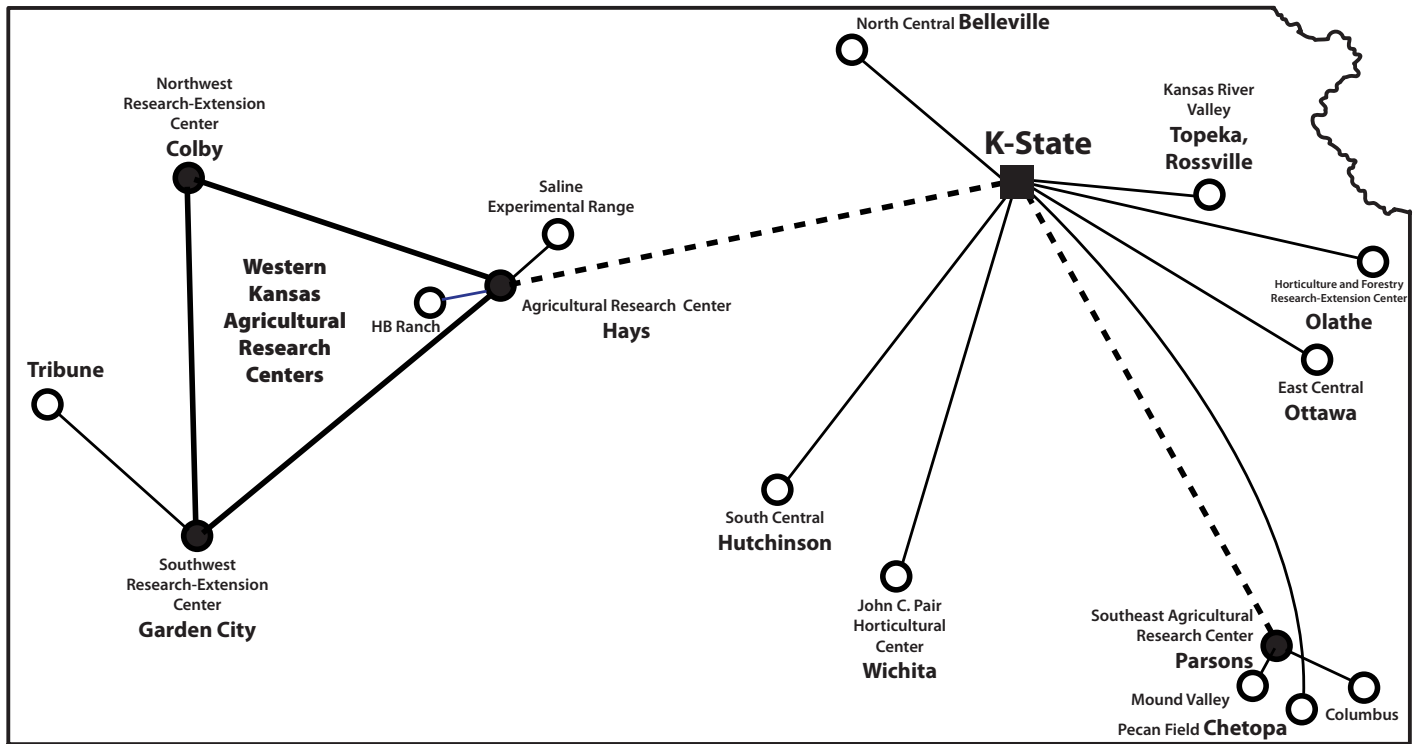
## Associated Programs

Bioprocessing and Industrial Value-Added Program  
Center for Animal Identification  
Center for Biobased Products by Design  
Center for Sustainable Energy  
Food Science Institute  
Great Plains Diagnostic Network  
Great Plains Sorghum Improvement and Utilization Center  
Kansas Agriculture and Rural Leadership  
Kansas Center for Agricultural Resources and the Environment  
Kansas Center for Sustainable Agriculture and Alternative Crops  
Kansas Water Resources Institute  
Konza Prairie Biological Station  
International Grains Program  
International Meat and Livestock Program  
Plant Biotechnology Center  
Weather Data Library  
Wheat Genetic and Genomic Resources Center

\* List includes units having faculty with KAES appointments in fiscal year 2010. For a full list of departments and programs of the Kansas State University Agricultural Experiment Station and Cooperative Extension Service and for additional information on K-State Research and Extension, see [www.ksre.ksu.edu](http://www.ksre.ksu.edu), and click on “About Us” in the sidebar.



# Kansas State University Agricultural Research Locations



## Station Publications

### Reports of Progress

- SRP 1015 K-State Turfgrass Research 2009  
(electronic only)
- SRP 1018 2009 Kansas Performance Tests with Winter  
Wheat Varieties
- SRP 1019 2009 Kansas Performance Tests with Corn  
Hybrids
- SRP 1020 Swine Day 2009 (electronic only)
- SRP 1021 Dairy Research 2009
- SRP 1022 2009 Kansas Performance Tests with  
Soybean Varieties
- SRP 1023 2009 Kansas Performance Tests with Grain  
Sorghum Hybrids
- SRP 1024 2009 Kansas Performance Tests with  
Sunflower Hybrids
- SRP 1025 2009 Kansas Performance Tests with Alfalfa  
Varieties
- SRP 1026 2009 National Winter Canola Variety Trial
- SRP 1027 2010 Chemical Weed Control for Field  
Crops, Pastures, Rangeland, and  
Noncropland
- SRP 1028 2009 Kansas Performance Tests with Cotton  
Varieties
- SRP 1029 Cattlemen's Day (electronic only)
- SRP 1030 Field Research 2010 (electronic only)
- SRP 1031 Kansas Fertilizer Research 2009  
(electronic only)
- SRP 1033 2010 Agricultural Research, Southeast  
Agricultural Research Center
- SRP 1034 Field Day 2010, Southwest Research-  
Extension Center

### Special Publications

- DRR09 Director's report of research in Kansas 2009  
(electronic only)

#### Suffix Letters for Contribution Numbers

- A Proceedings of meeting or symposium
- B Book or book chapter
- C Computer program
- D Department report
- J Journal manuscript
- S Station publication (report of progress, keeping up  
with research, special publication, or bulletin)
- T Trade publication

Categories are based on information received before manuscripts are published. Type of publication sometimes changes later.

Station publications are available on the World Wide Web at: [www.ksre.ksu.edu/library](http://www.ksre.ksu.edu/library)

Department reports are available only from the appropriate department office. Copies of journal articles or other external publications must be obtained from authors, journals, or a library. Some citations include a digital object identifier (doi) for use in retrieving manuscripts online. To locate an object using its doi, visit <http://dx.doi.org/>.

## Publications of Station Scientists (by unit and contribution number)

Note: Manuscripts are cross-listed under all relevant units according to authors' affiliations and appointments (i.e., Kansas Agricultural Experiment Station tenths).

### Administration

- 10-079-D Guidelines for exchange, increase and release of plant genetic materials developed by the Kansas Agricultural Experiment Station  
E. Minton, G. Pierzynski  
January 2010, 8 pp. (electronic only)  
[http://www.ksre.ksu.edu/library/misc2/Gen\\_Mat\\_Guidelines.pdf](http://www.ksre.ksu.edu/library/misc2/Gen_Mat_Guidelines.pdf)
- DRR09 Director's report of research in Kansas 2009  
March 2010, 47 pp. (electronic only)  
<http://www.ksre.ksu.edu/library/misc2/DRR09.pdf>

### Agricultural Economics

- 08-341-J A note on Allen-Uzawa partial elasticities of substitution: The case of the translog cost function  
A. Christev, A.M. Featherstone  
Applied Economics Letters, 16(11):1165-1169, 2009
- 08-342-J The effects of decoupling on land allocation  
T. Serra, D. Zilberman, J.M. Gil, A.M. Featherstone  
Applied Economics, 41(18):2323-2333, 2009
- 09-077-J Effects of label information on consumer willingness-to-pay for food attributes  
Z. Gao, T. Schroeder  
American Journal of Agricultural Economics, 91(3):795-809, 2009
- 09-299-J Sunkist Growers: Refreshing the brand  
M. Boland, V. Pozo, D. Sumner  
Review of Agricultural Economics, 31(3):628-639, 2009
- 10-089-J Market power and the cattle cycle  
J.M. Crespi, T. Xia, R.D. Jones  
American Journal of Agricultural Economics, 92(3):685-697, 2010

- 10-098-J Comparison of returns from legumes in endophyte-infected tall fescue for hay  
J.L. Moyer, K.C. Dhuyvetter, D. Shoup  
Forage and Grazinglands, 2009  
doi:10.1094/FG-2009-1014-01-RS
- 10-103-S Dairy Research 2009  
Multiple authors  
Coordinating author: J. Stevenson  
KS Agric. Exp. Stn. Report of Prog. 1021, December 2009
- 10-120-J Leadership development in agricultural economics: Challenges for academic units  
M.A. Boland  
Journal of Agricultural and Resource Economics, 34(3):367-382, 2009
- 10-130-D Irrigation equipment cost survey in Kansas  
J. Schlegel, L.J. Tsoodle  
Agricultural Economics Department  
Staff Paper no. 10-01, 2009, 9 pp.
- 10-153-D 2005 irrigation equipment cost survey in Kansas  
J. Schlegel, L.J. Tsoodle  
Agricultural Economics Department  
Staff Paper no. 10-02, 2009, 9 pp.
- 10-173-J An analysis of the 2002 Farm Bill's value-added producer grants program  
M.A. Boland, J.C. Crespi, D. Oswald  
Journal of Agribusiness, 27(1/2):107-123, 2009

### Publications without contribution numbers

- Consumer valuations of beef steak food safety enhancement in Canada, Japan, Mexico, and the United States  
G.T. Tonsor, T.C. Schroeder, J.M.E. Pennings, J. Mintert  
Canadian Journal of Agricultural Economics, 57(3):395-416, 2009

- Factors impacting food safety risk perceptions  
G.T. Tonsor, T.C. Schroeder, J.M.E. Pennings  
Journal of Agricultural Economics, 60(3):625-644, 2009
- Agronomy**
- 04-439-J Wind erodibility of organic soils  
D.J. Kohake, L.J. Hagen, E.L. Skidmore  
Soil Science Society of America Journal, 74:250-257, 2010
- 05-043-J Impact of M1A1 main battle tank disturbance on soil quality, invertebrates, and vegetation characteristics  
P.S. Althoff, S.J. Thien  
Journal of Terramechanics, 42:159-176, 2005
- 05-078-J Molecular mapping of a quantitative trait locus for aluminum tolerance in wheat cultivar Atlas 66  
H-X. Ma, G-H. Bai, B.F. Carver, L-L. Zhou  
Theoretical and Applied Genetics, 112:51-57, 2005
- 05-247-J Quantitative trait loci for aluminum resistance in wheat cultivar Chinese Spring  
H-X. Ma, G-H. Bai, W-Z. Lu  
Plant and Soil, 283:239-249, 2006
- 05-248-J Novel quantitative trait loci (QTL) for Fusarium head blight resistance in wheat cultivar Chokwang  
J. Yang, G-H. Bai, G.E. Shaner  
Theoretical and Applied Genetics, 111:1571-1579, 2005
- 05-336-J Main effects, epistasis, and environmental interactions of quantitative trait loci for Fusarium head blight resistance in a recombinant inbred population  
H-X. Ma, G-H. Bai, X. Zhang, W-Z. L  
Phytopathology, 96:534-541, 2006
- 05-337-J Marker-assisted characterization of Asian wheat lines for resistance to *Fusarium* head blight  
J-B. Yu, G-H. Bai, S-B. Cai, T. Ban  
Theoretical and Applied Genetics, 113(2):308-320, 2006
- 06-071-J The wind erosion prediction system: WEPS 1.0 user manual  
J. Tatarko, L.E. Wagner, S. Van Donk, L.J. Hagen, F. Fox, E.L. Skidmore, G.L. Tibke  
USDA publication, Engineering and Wind Erosion Research Unit
- 06-111-J Deletion of chromosome arms altered wheat resistance to Fusarium head blight and deoxynivalenol accumulation in Chinese Spring  
H-X. Ha, G-H. Bai, B.S. Gill, L.P. Hart  
Plant Disease, 90:1545-1549, 2006
- 06-294-J Quantitative trait loci for aluminum resistance in wheat  
L-L. Zhou, G-H. Bai, H. Xiang, B.F. Carver  
Molecular Breeding, 19(2):153-161, 2007
- 07-070-J Quantitative trait loci for Fusarium head blight resistance in a recombinant inbred population of Wangshuibai/Wheaton  
J-B. Yu, G-H. Bai, W-C. Zhou, Y-H. Dong, F.L. Kolb  
Phytopathology, 98(1):87-94, 2008
- 07-250-J Consumption of mycorrhizal and saprophytic fungi by Collembola in grassland soils  
J.L. Jonas, G.W.T. Wilson, P.M. White, A. Joern  
Soil Biology and Biochemistry, 39:2594-2602, 2007
- 08-106-J Erosion by wind: Modeling  
L.J. Hagen  
In: Encyclopedia of soil science, R. Lal (Ed.).  
London: Taylor & Francis, pp. 1-4, 2010

- 08-170-J New Fusarium head blight-resistant sources from Asian wheat germplasm  
J-B. Yu, G-H. Bai, S-B. Cai, Y. Hong, T. Ban  
Crop Science, 48(3):1090-1097, 2008
- 08-171-J Diverse origins of aluminum-resistant sources in wheat  
S-W. Hu, G-H. Bai, B.F. Carver, D. Zhang  
Theoretical and Applied Genetics, 118(1):29-41, 2008
- 08-172-J Quantitative trait loci for aluminum resistance in a Chinese wheat landrace FSW  
S. Cai, G-H. Bai, D. Zhang  
Theoretical and Applied Genetics, 117(1):49-56, 2008
- 08-216-J Quantitative trait loci for resistance to pre-harvest sprouting in US hard white winter wheat Rio Blanco  
S. Liu, S. Cai, R. Graybosch, C. Chen, G-H. Bai  
Theoretical and Applied Genetics, 117(5):691-699, 2008
- 08-354-J Molecular markers for wheat leaf rust resistance gene *Lr41*  
X-C. Sun, G-H. Bai, B.F. Carver, R. Bowden  
Molecular Breeding, 23(2):311-321, 2009
- 08-385-J Registration of K1639-2 soybean germplasm resistant to soybean cyst nematode and soybean aphid  
W.T. Schapaugh, J. Meng, T. Todd, J. Reese, J. Diaz-Montano, C.M. Smith  
Journal of Plant Registrations, 4(1):67-69, 2010
- 09-045-J Nonmetric multidimensional scaling corrects for population structure in association mapping with different sample types  
C. Zhu, J. Yu  
Genetics, 182:875-888, 2009
- 09-065-J Estimating the saltation and suspension components from field wind erosion  
L.J. Hagen, S. Van Pelt, B. Sharratt  
Aeolian Research, 1:147-153, 2010
- 09-066-J Wheat – *thinopyrum intermedium* recombinants resistant to *wheat streak mosaic virus* and *triticum mosaic virus*  
B. Friebe, L.L. Qi, D.L. Wilson, Z.J. Chang, D.L. Seifers, T.J. Martin, A.K. Fritz, B.S. Gill  
Crop Science, 49:1221-1226, 2009
- 09-069-J Response of soil microbial and invertebrate communities to tracked vehicle disturbance in tallgrass prairie  
P.S. Althoff, T.C. Todd, S.J. Thien, M.A. Callahan, Jr., P.M. White  
Applied Soil Ecology, 43(1):122-130, 2009
- 09-072-J Mineralogy and morphological properties of buried polygenetic paleosols formed in late quaternary sediments on upland landscapes of the central plains, USA  
D.R. Presley, P.E. Hartley, M.D. Ransom  
Geoderma, 154:508-517, 2010
- 09-080-J Effect of postemergence mesotrione application timing on grain sorghum  
M.J.M. Abit, K. Al-Khatib, D.L. Regehr, M.M. Classen, P.W. Stahlman, P.W. Geier, B.W. Gordon, R.S. Currie, B.L.S. Olson  
Weed Technology, 24:85-90, 2010
- 09-129-B Effects of ultraviolet-B radiation and its interactions with climate change factors on agricultural crop growth and yield  
K.R. Reddy, P.V.V. Prasad, S.K. Singh  
In: UV radiation in global climate change measurements, modeling and effects on ecosystems, W. Gao, D.L. Schmoltdt, J.R. Slusser (Eds.). London: Springer-Verlag, Beijing: Tsinghua University Press, pp. 395-436, 2010
- 09-152-J No-till induced increase in organic carbon reduces maximum bulk density of soils  
H. Blanco-Canqui, L.R. Stone, A.J. Schlegel, D.J. Lyon, M.F. Vigil, M.M. Mikha, P.W. Stahlman, C.W. Rice  
Soil Science Society of America Journal, 73:1871-1879, 2009

- 09-165-J Groundnut yield response and economic benefits of fungicide and phosphorus application in farmer-managed trials in northern Ghana  
J.B. Naab, S.S. Seini, K.O. Gyasi, G.Y. Mahama, P.V.V. Prasad, K.J. Boote, J.W. Jones  
*Experimental Agriculture*, 45:385-399, 2009
- 09-170-J Regional study of no-till impacts on near-surface aggregate properties that influence soil erodibility  
H. Blanco-Canqui, M.M. Mikha, J.G. Benjamin, L.R. Stone, A.J. Schlegel, D.J. Lyon, M.F. Vigil, P.W. Stahlman  
*Soil Science Society of America Journal*, 73:1361-1368, 2009
- 09-222-J Wheat and sorghum residue removal for expanded uses increases sediment and nutrient loss in runoff  
H. Blanco-Canqui, R.J. Stephenson, N.O. Nelson, D.R. Presley  
*Journal of Environmental Quality*, 38(6):2365-2372, 2009
- 09-226-J Mapping quantitative trait loci for long coleoptile in Chinese wheat landrace Wangshuibai  
J-B. Yu, G-H. Bai, W-C. Zhou  
*Crop Science*, 50(1):43-50, 2010
- 09-247-J Enhancement in leaf photosynthesis and upregulation of Rubisco in the C<sub>4</sub> sorghum plant at elevated growth carbon dioxide and temperature occur at early stages of leaf ontogeny  
P.V.V. Prasad, J.C.V. Vu, K.J. Boote, L.H. Allen, Jr.  
*Functional Plant Biology*, 36:761-769, 2009
- 09-254-J Mapping quantitative trait loci for quality factors in an inter-class cross of US and Chinese wheat  
X. Sun, F. Marza, H. Ma, B.F. Carver, G. Bai  
*Theoretical and Applied Genetics*, 120(5):1041-1051, 2010
- 09-260-J Tillage and crop rotation phase effects on soil physical properties in the west-central Great Plains  
L.R. Stone, A.J. Schlegel  
*Agronomy Journal*, 102:483-491, 2010
- 09-309-J Allelic diversities in rice starch biosynthesis lead to a diverse array of rice eating and cooking qualities  
Z. Tian, Q. Qian, Q. Liu, M. Yan, X. Liu, C. Yan, G. Liu, Z. Gao, S. Tang, D. Zeng, Y. Wang, J. Yu, M. Gu, J. Li  
*Proceedings of the National Academy of Sciences*, 106:21760-21765, 2009
- 09-338-J An improved method for screening *Fusarium* stalk rot resistance in grain sorghum [*Sorghum bicolor* (L.) Moench]  
T. Tesso, N. Ochanda, L. Claflin, M. Tuinstra  
*African Journal of Plant Science*, 3(11):254-262, 2009
- 09-353-J Genetic diversity and population structure analysis of accessions in the US historic sweet sorghum collection  
M.L. Wang, C. Zhu, N.A. Barkley, Z. Chen, J.E. Erpelding, S.C. Murray, M.R. Tuinstra, T. Tesso, G.A. Pederson, J. Yu  
*Theoretical and Applied Genetics*, 120:13-23, 2009
- 09-367-J Soil response to long-term cropping systems on an Argiustoll in the Central Great Plains  
H. Blanco-Canqui, L.R. Stone, P.W. Stahlman  
*Soil Science Society of America Journal*, 74:602-611, 2009
- 09-373-J The genetic architecture of maize flowering time  
E.S. Buckler, J.B. Holland, P. Bradbury, C. Acharya, P. Brown, C. Browne, E. Ersoz, S. Flint-Garcia, A. Garcia, J.C. Glaubitz, M.M. Goodman, C. Hajres, K. Guill, D.E. Kroon, S. Larsson, N. Lepak, H. Li, S.E. Mitchell, G. Pressoir, J. Peiffer, M. Oropeza Rosas, T.R. Rocheford, M.C. Romay, S. Romero, S. Salvo, H. Sanchez Villeda, H. Sofia da Silva, Q. Sun, F. Tian, N. Upadyayula, D. Ware, H. Yates, J. Yu, Z. Zhang, S. Kresovich, M.M. McMullen  
*Science*, 325:714-718, 2009

- 09-378-J Variation explained in mixed model association mapping  
G. Sun, C. Zhu, S. Yang, W. Song, M.H. Kramer, H.P. Piepho, J. Yu  
*Heredity*, 105:333-340, 2010
- 09-379-J Forage yield and quality of hard red and hard white winter wheat across cutting dates  
J.D. Holman, C.R. Thompson, R.L. Hale, A.J. Schlegel  
*Agronomy Journal*, 102(2):759-773, 2010
- 10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties  
Multiple authors  
Coordinating author: J. Lingenfelser  
KS Agric. Exp. Stn. Report of Prog. 1007, August 2009
- 10-040-J Planning for deficit irrigation  
N.L. Klocke, R.S. Currie, L.R. Stone, D.A. Bolton  
*Journal of Applied Engineering in Agriculture*, 26(3):405-412, 2010
- 10-041-J Technical note: Scheduling for deficit irrigation - Crop yield predictor  
N.L. Klocke, L.R. Stone, S. Briggemann, D.A. Bolton  
*Journal of Applied Engineering in Agriculture*, 26(3):413-418, 2010
- 10-066-J K, Cl, and N fertilization affects grain sorghum production and stalk rot  
D.W. Sweeney, D.J. Jardine, J.L. Moyer, D.A. Whitney  
*Crop Management*, 2010  
doi:10.1094/CM-2010-0126-01-RS
- 10-079-D Guidelines for exchange, increase and release of plant genetic materials developed by the Kansas Agricultural Experiment Station  
E. Minton, G. Pierzynski  
January 2010, 8 pp. (electronic only)  
[http://www.ksre.ksu.edu/library/misc2/Gen\\_Mat\\_Guidelines.pdf](http://www.ksre.ksu.edu/library/misc2/Gen_Mat_Guidelines.pdf)
- 10-133-S 2010 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland  
Multiple authors  
Coordinating author: D. Peterson  
KS Agric. Exp. Stn. Report of Prog. 1027, January 2010
- 10-135-S 2009 National Winter Canola Variety Trial  
Multiple authors  
Coordinating author: M. Stamm  
KS Agric. Exp. Stn. Report of Prog. 1026, January 2010
- 10-151-S 2009 Kansas Performance Tests with Corn Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelser  
KS Agric. Exp. Stn. Report of Prog. 1019, November 2009
- 10-159-J Evaluation and characterization of sorghum biomass as feedstock for sugar production  
K. Theerarattananoon, X. Wu, S. Staggenborg, J. Prophet, R. Madl, D. Wang  
*Transactions of the ASABE*, 53(2):509-525, 2010
- 10-160-S 2009 Kansas Performance Tests with Grain Sorghum Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelser  
KS Agric. Exp. Stn. Report of Prog. 1023, December 2009
- 10-167-S 2009 Kansas Performance Tests with Soybean Varieties  
Multiple authors  
Coordinating author: J. Lingenfelser  
KS Agric. Exp. Stn. Report of Prog. 1022, December 2009
- 10-190-J Effect of probe deflection on dual-probe heat-pulse thermal conductivity measurements  
G.J. Kluitenberg, T. Kamai, J.A. Vrugt, J.W. Hopmans  
*Soil Science Society of America Journal*, 74(5):1537-1540, 2010

10-212-S Field Research 2010  
Multiple authors  
Coordinating author: J. Shroyer  
KS Agric. Exp. Stn. Report of Prog.  
1030, April 2010

10-213-S Kansas Fertilizer Research 2009  
Multiple authors  
Coordinating author: D. Ruiz-Diaz  
KS Agric. Exp. Stn. Report of Prog.  
1031, April 2010

10-220-S 2009 Kansas Performance Tests with  
Sunflower Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog.  
1024, January 2010

10-221-S 2009 Kansas Performance Tests with  
Alfalfa Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog.  
1025, January 2010

10-257-S Agricultural Research 2010  
Multiple authors  
KS Agric. Exp. Stn. Report of Prog.  
1033, April 2010

10-262-J Mixed linear model approach adapted  
for genome-wide association studies  
Z. Zhang, E. Ersoz, C-Q. Lai, R.J.  
Todhunter, H.K. Tiwari, M.A. Gore,  
P.J. Bradbury, J. Yu, D.K. Arnett, J.M.  
Ordovas, E.S. Buckler  
Nature Genetics, 42:355-360, 2010

10-293-S Field Day 2010, Southwest Research  
Extension Center  
Multiple authors  
KS Agric. Exp. Stn. Report of Prog.  
1034, June 2010

10-319-S 2009 Kansas Performance Tests with  
Cotton Varieties  
Multiple authors  
Coordinating author: S. Staggenborg  
KS Agric. Exp. Stn. Report of Prog.  
1028, May 2010

10-330-J Potential availability of fertilized  
selenium in field capacity and  
submerged soils as measured by an  
isotopic dilution technique  
L. Premarathna, M.J. McLaughlin, J.K.  
Kirby, G.M. Hettiarachchi, D. Beak, S.  
Stacey, D.J. Chittleborough  
Soil Science Society of America  
Journal, 74(5):1589-1596, 2010

Publications without contribution numbers

Top-dress applications of UAN  
fertilizer with herbicides on wheat  
Multiple authors  
Coordinating author: P.W. Stahlman  
KS Agric. Exp. Stn. MF2903, 2009

**Anatomy and Physiology**

09-212-J Testosterone upregulates anion  
secretion across porcine vas deferens  
epithelia in vitro  
F. Pierucci-Alves, C.L. Duncan, B.D.  
Schultz  
Biology of Reproduction, 81(4):628-  
635, 2009

09-337-J Porcine vas deferens luminal pH is  
acutely increased by systemic xylazine  
administration  
F. Pierucci-Alves, C.L. Duncan, J.D.  
Lillich, B.D. Schultz  
Biology of Reproduction, 82(1):132-  
135, 2010

Publications without contribution numbers

Antimicrobial host defense peptides in  
an arteriviral infection: Differential  
peptide expression and virus  
inactivation  
Y. Sang, P. Ruchala, R.I. Lehrer, C.R.  
Ross, R.R.R. Rowland, F. Blecha  
Viral Immunology, 22(4):235-242,  
2009

Cultured mammary epithelial  
monolayers (BME-UV) express  
functional organic anion and cation  
transporters  
M.M. Al-Bataineh, D. van der Merwe,  
B.D. Schultz, R. Gehring  
Journal of Veterinary Pharmacology  
and Therapeutics, 32:422-428, 2009



## Animal Sciences and Industry

- 02-322-J Evaluating the relationships among blood glucose, performance, morbidity and mortality in receiving heifers  
H.J. LaBrune, J.S. Drouillard, T.B. Farran, J.J. Sindt, S.P. Montgomery, R.D. Hunter  
Bovine Practitioner, 43:122-127, 2009
- 05-234-J Effect of ractopamine dose and feeding duration on pig performance in a commercial finishing facility  
R.G. Main, S.S. Dritz, M.D. Tokach, R.D. Goodband, J.L. Nelssen  
Journal of Swine Health and Production, 17:134-139, 2009
- 06-049-J Expression of porcine Toll-like receptor 2, 4 and 9 gene transcripts in the presence of lipopolysaccharide and *Salmonella enterica* serovars Typhimurium and Choleraesuis  
T.E. Burkey, K.A. Skjolaas, S.S. Dritz, J.E. Minton  
Veterinary Immunology and Immunopathology, 130(1-2):96-101, 2009
- 06-138-J Comparison of full-fat corn germ, whole cottonseed, and tallow as fat sources for lactating dairy cattle  
W.F. Miller, J.E. Shirley, E.C. Titgemeyer, M.J. Brouk  
Journal of Dairy Science, 92(7):3386-3391, 2009
- 06-232-J Effects of melengestrol acetate on L-selectin and  $\beta$ 2-integrin expression of polymorphonuclear leukocytes from heifers challenged with lipopolysaccharide  
M.E. Corrigan, J.S. Drouillard, C.R. Wyatt, E.R. Loe, B.E. Depenbusch, A.S. Webb, M.J. Quinn, H-F. Wang, J.J. Higgins  
International Journal of Applied Research in Veterinary Medicine, 7:169-180, 2009
- 07-157-J Effects of intermittent ractopamine HCl use on pig growth performance in late finishing  
C.R. Neill, R.D. Goodband, M.D. Tokach, J.L. Nelssen, S.S. Dritz, J.M. DeRouchey, C.N. Groesbeck, K.R. Lawrence  
Professional Animal Scientist, 29:239-242, 2010
- 07-270-J Determining the effect of lysine:calorie ratio on growth performance of ten- to twenty-kilogram of body weight nursery pigs of two different genotypes  
J.D. Schneider, M.D. Tokach, S.S. Dritz, J.L. Nelssen, J.M. DeRouchey, R.D. Goodband  
Journal of Animal Science, 88:137-146, 2010
- 08-045-J Effects of feeding elevated concentrations of supplemental copper and zinc on the antimicrobial susceptibility profiles of fecal bacteria in feedlot cattle  
M.E. Jacob, J.T. Fox, T.G. Nagaraja, J.S. Drouillard, S.K. Narayanan  
Foodborne Pathogens and Disease, 7(6):643-648, 2010
- 08-082-J Effects of dry-rolled or steam-flaked corn finishing diets with or without 25% distiller's dried grains on ruminal fermentation and apparent total tract digestion  
M.L. May, M.J. Quinn, C.D. Reinhardt, L. Murray, M.L. Gibson, K.K. Karges, J.S. Drouillard  
Journal of Animal Science, 87:3630-3638, 2009
- 08-135-J Effects of pH, lactate cation, and lactate ion concentration on *in vitro* metmyoglobin-reducing activity  
S. Hutchinson, M. Seyfert, M.C. Hunt, J.J. Higgins  
Journal of Muscle Foods, 21(1):79-86, 2010

- 08-206-J Evaluation of dry distiller's grains and roughage source in steam-flaked corn based finishing diets  
S. Uwituze, G.L. Parsons, M.K. Shelor, B.E. Depenbusch, K.K. Karges, M.L. Gibson, C.D. Reinhardt, J.S. Drouillard  
Journal of Animal Science, 88:258-274, 2009
- 08-233-J Effects of irradiation of feed ingredients added to meal of pelleted diets on growth performance of weanling pigs  
C.N. Groesbeck, J.M. DeRouchey, M.D. Tokach, R.D. Goodband, S.S. Dritz, J.L. Nelssen  
Journal of Animal Science, 87:3997-4002, 2009
- 08-393-J Relationship of various incoming cattle traits with feedlot performance and carcass traits  
C.D. Reinhardt, W.D. Busby, L.R. Corah  
Journal of Animal Science, 87:3030-3042, 2009
- 08-399-J Ovulation and pregnancy outcomes in response to human chorionic gonadatropin before resynchronized ovulation in dairy cattle  
B.S. Buttrey, M.G. Burns, J.S. Stevenson  
Theriogenology, 73:449-459, 2010
- 09-011-J Additive effects of a steroidal implant and zilpaterol hydrochloride on feedlot performance, carcass characteristics, and skeletal muscle messenger ribonucleic acid abundance in finishing steers  
T.J. Baxa, J.P. Hutcheson, M.F. Miller, J.C. Brooks, W.T. Nichols, M.N. Streeter, D.A. Yates, B.J. Johnson  
Journal of Animal Science, 88:330-337, 2010
- 09-013-J Optimizing use of distillers grains in finishing diets containing steam-flaked corn  
B.E. Depenbusch, E.R. Loe, J.J. Sindt, J.J. Higgins, J.S. Drouillard, N.A. Cole  
Journal of Animal Science, 87(8):2644-2652, 2009
- 09-070-J Effects of increasing levels of dried corn distillers grains with solubles on growth performance, carcass characteristics, and meat quality of yearling heifers  
B.E. Depenbusch, C.M. Coleman, J.J. Higgins, J.S. Drouillard  
Journal of Animal Science, 87(8):2653-2663, 2009
- 09-106-J Effects of dry aging of bone-in and boneless strip loins using two aging processes for two aging times  
S.L. DeGeer, M.C. Hunt, C.L. Bratcher, B.A. Crozier-Dodson, D.E. Johnson, J.F. Stika  
Meat Science, 83:768-774, 2009
- 09-117-J Prediction of Japanese colour score  
S.M. Ryan, J.A. Unruh, K. Adhikari, M.C. Hunt, C. Schultz-Kaster, J.O. Matthews  
Meat Science, 84:165-171, 2010
- 09-130-J Ice cream: Foam formation and stabilization - A review  
X. E, Z.J. Pei, K.A. Schmidt  
Food Reviews International, 26(2):122-137, 2010
- 09-133-J Evaluation of two thermal processing schedules at low relative humidity for elimination of *Escherichia coli* O157:H7 and *Salmonella* serovars in chopped and formed beef jerky  
N. Harper, M.N. Roberts, K.J.K. Getty, E.A.E. Boyle, D.Y.C. Fung  
Journal of Food Protection, 72(12):2476-2482, 2009
- 09-141-J Effects of alfalfa hay inclusion rate on productivity of lactating dairy cattle fed wet corn gluten feed-based diets  
C.R. Mullins, K.N. Grigsby, B.J. Bradford  
Journal of Dairy Science, 92:3510-3516, 2009

- 09-144-J Effects of zilpaterol hydrochloride feeding duration on crossbred beef semimembranosus steak color in aerobic or modified atmosphere packaging  
J.A. Gunderson, M.C. Hunt, T.A. Houser, E.A.E. Boyle, M.E. Dikeman, D.E. Johnson, D.L. VanOverbeke, G.G. Hilton, C. Brooks, J. Killefer, D.M. Allen, M.N. Streeter, W.T. Nichols, J.P. Hutcheson, D.A. Yates  
Journal of Animal Science, 87(11):3739-3750, 2009
- 09-151-J Feeding zilpaterol hydrochloride to calf-fed Holsteins has minimal effects on semimembranosus steak color  
J.A. Gunderson, M.C. Hunt, T.A. Houser, E.A.E. Boyle, M.E. Dikeman, D.E. Johnson, D.L. VanOverbeke, G.G. Hilton, C. Brooks, J. Killefer, D.M. Allen, M.N. Streeter, W.T. Nichols, J.P. Hutcheson, D.A. Yates  
Journal of Animal Science, 87(11):3751-3763, 2009
- 09-160-J Contributions of muscles of various color stabilities to the overall color stability of ground beef  
C.R. Raines, M.C. Hunt, J.A. Unruh  
Journal of Food Science, 75(1):C85-C89, 2009
- 09-162-J Cow biological type affects ground beef color stability  
C.R. Raines, M.C. Hunt, J.A. Unruh  
Meat Science, 83:752-758, 2009
- 09-207-J Effects of fibre orientation, myoglobin redox form, and postmortem storage on NIR tissue oximeter measurements of beef *longissimus* muscle  
A. Mohan, M.C. Hunt, T.E. Barstow, T.A. Houser, C. Bopp, D.M. Hueber  
Meat Science, 84:79-85, 2010
- 09-227-J Inactivation of *Bacillus subtilis* spores with surface active peracids and characterization of formed free radicals using electron spin resonance spectroscopy  
A. Mohan, C.E. Sizer, J. Dunn, M.C. Hunt  
Journal of Food Science, 74(7):M411-417, 2009
- 09-268-J Pregnancy outcome after insemination of frozen-thawed bovine semen packaged in two straw sizes: A meta-analysis  
J.S. Stevenson, J.J. Higgins, Y. Jung  
Journal of Dairy Science, 92:4432-4438, 2009
- 09-269-J Daily injection of tumor necrosis factor- $\alpha$  increases hepatic triglycerides and alters transcript abundance of metabolic genes in lactating dairy cattle  
B.J. Bradford, L.K. Mamedova, J.E. Minton, J.S. Drouillard, B.J. Johnson  
Journal of Nutrition, 139:1451-1456, 2009
- 09-282-J Effects of ractopamine hydrochloride are not confined to mammalian tissue: Evidence for direct effects of ractopamine hydrochloride supplementation on fermentation by ruminal microorganisms  
C.E. Walker, J.S. Drouillard  
Journal of Animal Science, 88:697-706, 2010
- 09-285-J Case study: Feed intake and performance of heifers sired by high- or low-residual feed intake angus bulls  
J. Minick Bormann, D.W. Moser, T.T. Marston  
The Professional Animal Scientist, 26:328-331, 2010
- 09-290-J Efficacy of commercial enzymes in diets containing various concentrations and sources of dried distillers grains with solubles for nursery pigs  
C.K. Jones, J.R. Bergstrom, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J.L. Nelssen, S.S. Dritz  
Journal of Animal Science, 88:2084-2091, 2010
- 09-291-J Effects of fermented soybean meal and specialty animal protein sources on nursery pig performance  
C.K. Jones, J.M. DeRouchey, J.L. Nelssen, M.D. Tokach, S.S. Dritz, R.D. Goodband  
Journal of Animal Science, 88:1725-1732, 2010

- 09-300-J Plasma pharmacokinetics of oral chlortetracycline in group fed, ruminating, Holstein steers in a feedlot setting  
J.B. Reinbold, J.F. Coetzee, R. Gehring, J.A. Havel, L.C. Hollis, KC Olson, M.D. Apley  
Journal of Veterinary Pharmacology and Therapeutics, 33(1):76-83, 2010
- 09-339-J Microbial translocation of needle-free versus traditional needle injection-enhanced beef strip loins  
A.N. Ray, M.E. Dikeman, B.A. Crow, R.K. Phebus, J.P. Grobbel, L.C. Hollis  
Meat Science, 84(1):208-211, 2010
- 09-346-J Tissue expression of angiopoietin-like protein 4 in cattle  
L.K. Mamedova, K. Robbins, B.J. Johnson, B.J. Bradford  
Journal of Animal Science, 88:124-130, 2010
- 09-354-J Insemination timing affects pregnancy rates in beef cows treated with CO-Synch protocol including an intravaginal progesterone insert  
C.A. Dobbins, D.R. Eborn, D.E. Tenhouse, R.M. Breiner, S.K. Johnson, T.T. Marston, J.S. Stevenson  
Theriogenology, 72:1009-1016, 2009
- 09-376-J A comparison of needle-free and needle-injection methods and solutions for enhancement of beef *longissimus lumborum* muscles  
B.A. Crow, M.E. Dikeman, L.C. Hollis, R.A. Phebus, A. Ray, T.A. Houser, J.P. Grobbel  
Meat Science, 84(3):529-539, 2010
- 09-377-J Resynchronized ovulation in lactating dairy cattle of unknown pregnancy: Occurrence and timing of gonadotropin-releasing hormone  
J.S. Stevenson, C.A. Martel  
The Professional Animal Scientist, 25:605-609, 2009
- 09-387-J Oral inoculation with *Salmonella enterica* serovar Typhimurium or Choleraesuis promotes divergent responses in the somatotropic growth axis of swine  
B.L. Davis, J.N. Fraser, T.E. Burkey, K.A. Skjolaas, S.S. Dritz, B.J. Johnson, J.E. Minton  
Journal of Animal Science, 88(5):1642-1648, 2010
- 09-388-J Interaction of *Bacillus* species and *Salmonella enterica* serovar Typhimurium in immune or inflammatory signaling from swine intestinal epithelial cells  
C.C. Aperce, T.E. Burkey, B. KuKanich, B.A. Crozier-Dodson, S.S. Dritz, J.E. Minton  
Journal of Animal Science, 88(5):1649-1656, 2010
- 10-004-J Headspace volume and percentage of carbon monoxide affects carboxymyoglobin layer development of modified atmosphere packaged beef steaks  
C.R. Raines, M.C. Hunt  
Journal of Food Science, 75(1):C62-C65, 2010
- 10-010-T Is alfalfa hay worth the price?  
C.R. Mullins, B.J. Bradford  
Hoard's Dairyman, February 2010, p. 137
- 10-014-S Swine Day 2009  
Multiple authors  
Coordinating author: R. Goodband  
KS Agric. Exp. Stn. Report of Prog. 1020, November 2009
- 10-095-J Effects of a molasses-coated cottonseed product on diet digestibility, performance, and milk fatty acid profile of lactating dairy cattle  
C.R. Mullins, B.J. Bradford  
Journal of Dairy Science, 93(7):3128-3135, 2010
- 10-103-S Dairy Research 2009  
Multiple authors  
Coordinating author: J. Stevenson  
KS Agric. Exp. Stn. Report of Prog. 1021, December 2009

- 10-144-J Rates of luteolysis and pregnancy in dairy cows after treatment with cloprostenol or dinoprost  
J.S. Stevenson, A.P. Phatak  
Theriogenology, 73:1127-1138, 2010
- 10-170-S Cattlemen's Day 2010  
Multiple authors  
Coordinating author: J. Drouillard  
KS Agric. Exp. Stn. Report of Prog. 1029, March 2010
- 10-203-J Kinetics of myoglobin redox form stabilization by malate dehydrogenase  
A. Mohan, S. Muthukrishnan, M.C. Hunt, T.J. Barstow, T.A. Houser  
Journal of Agricultural and Food Chemistry, 58(11):6994-7000, 2010
- 10-204-J Myoglobin redox form stabilization by compartmentalized lactate and malate dehydrogenases  
A. Mohan, M.C. Hunt, S. Muthukrishnan, T.A. Houser, T.E. Barstow  
Journal of Agricultural and Food Chemistry, 58(11):7021-7029, 2010
- 10-244-J Effects of malate, lactate, and pyruvate on myoglobin redox stability in homogenates of three bovine muscles  
A. Mohan, M.C. Hunt, T.J. Barstow, T.A. Houser, S. Muthukrishnan  
Meat Science, 86:304-310, 2010

Publications without contribution numbers

- Anaerobes  
L.E. Erickson, D.Y.C. Fung  
In: Encyclopedia of industrial biotechnology: Bioprocess, bioseparation, and cell technology  
New York: John Wiley and Sons, pp. 1-15, 2010
- Application of a colony PCR technique with Fung's double tube method for rapid detection and confirmation of *Clostridium perfringens*  
C. Ruengwilysup, C. Detvisitsakun, N. Aumyat, D.Y.C. Fung  
Journal of Rapid Methods and Automation in Microbiology, 17(3):280-290, 2009

Characterization of specific passive immunity stimulated by vaccination of beef cows grazing native range with *E. coli* O157:H7-SRP  
B.W. Wileman, D.U. Thompson, KC Olson, L.A. Pacheco, J.R. Jaeger, D.T. Burkhardt, J. Sandstrom, D.A. Emery  
Bovine Practitioner, 44:12-16, 2010

Development of a colloidal gold strip for rapid detection of ochratoxin A with mimotope peptide  
W. Lai, D.Y.C. Fung, Y. Xu, R. Liu, Y. Xiong  
Food Control, 20:791-795, 2009

'Natural' suppression of the growth of foodborne pathogens in meat products  
D.Y.C. Fung, L. Thompson  
International Review of Food Science and Technology, 01/2009:80-81, 2009

**Apparel, Textiles, and Interior Design**

- 08-328-B Understanding and improving textile recycling: A systems perspective  
J.M. Hawley  
In: Sustainable textiles: Life cycle and environmental impact. R. Blackburn (Ed.). Cambridge, England: Woodhead Publishing, pp. 179-199, 2009

Publications without contribution numbers

- Exploration of second-hand apparel acquisition behaviors and barriers  
K.Y. Hiller Connell  
Proceedings of the International Textile and Apparel Association Annual Conference  
Bellevue, WA, 2009
- Fabric of India life: The 2006-2007 Fulbright experience  
J.M. Hawley  
Fiber, issue 4, 2009
- Natural dyestuffs: Sustainable practices for color effects  
S.J. Haar  
Proceedings of the International Textile and Apparel Association Annual Conference  
Bellevue, WA, 2009

- Surveying knowledge, attitudes, & interest about sustainability among apparel and textiles undergraduates  
C.M. Armstrong, D.J.C. Meyer-Brosdahl  
Proceedings of the International Textile and Apparel Association Annual Conference  
Bellevue, WA, 2009
- Students' attitude-behavior gap on issues of labor exploitation  
K.Y. Hiller Connell, J.M. Kozar  
Proceedings of the International Textile and Apparel Association Annual Conference  
Bellevue, WA, 2009
- ### Biochemistry
- 06-013-J Loss of Purkinje cells in the PKC gamma H101Y transgenic mouse  
Y. Zhang, A. Snider, L. Willard, D. Takemoto, G. Lin  
Biochemical and Biophysical Research Communications, 378:524-528, 2009
- 06-158-J Synergistic cooperation between two ClpB isoforms in aggregate reactivation  
M. Nagy, I. Guenther, V. Akoev, M.E. Barnett, M.I. Zavodszky, S. Kedzierska-Mieszkowska, M. Zolkiewski  
Journal of Molecular Biology, 396:697-707, 2010
- 07-124-J The serpin gene family in *Anopheles gambiae*  
C. Suwanchaichinda, M.R. Kanost  
Gene, 442:47-54, 2009
- 07-125-J Functions of *Manduca sexta* hemolymph proteinases HP6 and HP8 in two innate immune pathways  
C. An, J. Ishibashi, H. Jiang, M.R. Kanost  
Journal of Biological Chemistry, 284:19716-19726, 2009
- 08-290-J Characterization of endogenous and recombinant laccase-2, a multicopper oxidase from the tobacco hornworm, *Manduca sexta*  
N.T. Dittmer, M.J. Gorman, M.R. Kanost  
Insect Biochemistry and Molecular Biology, 39:596-606, 2009
- 08-360-J Mechanical properties of insect cuticle, a hierarchically ordered biomaterial  
J. Lomakin, C. Eichler, Y. Arakane, K.J. Kramer, S. Muthukrishnan, R.W. Beeman, M.R. Kanost, S.H. Gherke  
Biomacromolecules, 100:470-471, 2009
- 09-078-J Identification, RNAi knockdown, and functional analysis of an ejaculate protein that mediates a postmating, prezygotic phenotype in a cricket  
J.L. Marshall, D.L. Huestis, Y. Hiromasa, S. Wheeler, C. Oppert, S.A. Marshall, J.M. Tomich, B. Oppert  
PLOS One, 4(10):e7537, 2009  
doi:10.1371/journal.pone.0007537
- 09-150-J Effects of alkaline treatment on the structure of phosphorylated wheat starch and its digestibility  
Y. Sang, P.A. Seib, A.I. Herrera, O. Prakash, Y-C. Shi  
Food Chemistry, 118:323-327, 2010
- 09-314-J Structural interpretation of paramagnetic relaxation enhancement-derived distances for disordered protein states  
D. Ganguly, J. Chen  
Journal of Molecular Biology, 390:467-477, 2009
- 09-395-J An insight into the transcriptome and proteome of the salivary gland of the stable fly, *Stomoxys calcitrans*  
X. Wang, J.M. Ribeiro, A.B. Broce, M.J. Wilkerson, M.R. Kanost  
Insect Biochemistry and Molecular Biology, 39:607-614, 2009
- 10-043-J Tyrosine hydroxylase is required for cuticle sclerotization and pigmentation in *Tribolium castaneum*  
M.J. Gorman, Y. Arakane  
Insect Biochemistry and Molecular Biology, 40:267-273, 2010

- 10-203-J Kinetics of myoglobin redox form stabilization by malate dehydrogenase  
A. Mohan, S. Muthukrishnan, M.C. Hunt, T.J. Barstow, T.A. Houser  
Journal of Agricultural and Food Chemistry, 58(11):6994-7000, 2010
- 10-204-J Myoglobin redox form stabilization by compartmentalized lactate and malate dehydrogenases  
A. Mohan, M.C. Hunt, S. Muthukrishnan, T.A. Houser, T.E. Barstow  
Journal of Agricultural and Food Chemistry, 58(11):7021-7029, 2010
- 10-244-J Effects of malate, lactate, and pyruvate on myoglobin redox stability in homogenates of three bovine muscles  
A. Mohan, M.C. Hunt, T.J. Barstow, T.A. Houser, S. Muthukrishnan  
Meat Science, 86:304-310, 2010
- Publications without contribution numbers
- The *Tribolium castaneum* larval gut transcriptome and proteome: A resource for the study of the coleopteran gut  
K. Morris, M. Lorenzen, Y. Hiromasa, J.M. Tomich, C. Oppert, E.N. Elpidina, K. Vinokurov, J.L. Jurat-Fuentes, J. Fabrick, B.S. Oppert  
Journal of Proteome Research, 8(8):3889-3898, 2009
- Biological and Agricultural Engineering**
- 05-130-J Improved water resistance of soy protein adhesive at isoelectric point  
D. Wang, X.S. Sun, G. Yang, Y. Wang  
Transactions of the ASABE, 52(1):173-177, 2009
- 06-071-J The wind erosion prediction system: WEPS 1.0 user manual  
J. Tatarko, L.E. Wagner, S. Van Donk, L.J. Hagen, F. Fox, E.L. Skidmore, G.L. Tibke  
USDA publication, Engineering and Wind Erosion Research Unit
- 08-313-J Culture of microalga *Botryococcus* in livestock wastewater  
Y. Shen, W. Yuan, Z. Pei, E. Mao  
Transactions of the ASABE, 51(4):1395-1400, 2008
- 08-337-J Evaluation and characterization of forage sorghum as feedstock for fermentable sugar production  
D.Y. Corredor, J.M. Salazar, K.L. Hohn, S. Bean, B. Bean, D. Wang  
Applied Biochemistry and Biotechnology, 158(1):164-179, 2009
- 08-401-J Predicting the temperature-dependent viscosity of biodiesel fuels  
W. Yuan, A.C. Hansen, Q. Zhang  
Fuel, 88:1120-1126, 2009
- 09-009-J Germination-improved ethanol fermentation performance of high-tannin sorghum in a laboratory dry-grind process  
S. Yan, X. Wu, F. MacRitchie, D. Wang  
Cereal Chemistry, 86(6):597-600, 2009
- 09-010-J Field comparison of PM10 samplers  
L. Guo, R.G. Maghirang, E.B. Razote, J.G. Tallada, J.P. Harner, III, W.L. Hargrove  
Applied Engineering in Agriculture, 25(5):737-744, 2009
- 09-065-J Estimating the saltation and suspension components from field wind erosion  
L.J. Hagen, S. Van Pelt, B. Sharratt  
Aeolian Research, 1:147-153, 2010
- 09-076-J Heterotrophic culture of *Chlorella protothecoides* in various nitrogen sources for lipid production  
Y. Shen, W. Yuan, Z. Pei, E. Mao  
Applied Biochemistry and Biotechnology, 160:1674-1684, 2009
- 09-079-J Size distribution and rate of dust generated during grain elevator handling  
J.M. Boac, R.G. Maghirang, M.E. Casada, J.D. Wilson, Y.S. Jung  
Applied Engineering in Agriculture, 25(4):533-541, 2009
- 09-169-J SWAT discharge response to spatial rainfall variability in a Kansas watershed  
P. Tuppad, K.R. Douglas-Mankin, J.K. Koelliker, J.M.S. Hutchinson  
Transactions of the ASABE, 2010

- 09-228-J Microalgae mass production methods  
Y. Shen, Z. Pei, W. Yuan, E. Mao  
Transactions of the ASABE,  
52(4):1275-1287, 2009
- 09-232-J Computational investigation of the  
effect of biodiesel fuel properties on  
diesel engine NOx emissions  
W. Yuan, A.C. Hansen  
International Journal of Agricultural  
and Biological Engineering, 2(2):41-48,  
2009
- 09-237-J The effect of nitrogen and extraction  
method on algae lipid yield  
Y. Shen, Z. Pei, W. Yuan, E. Mao  
International Journal of Agricultural  
and Biological Engineering, 2(1):51-57,  
2009
- 09-312-J Properties of field-sprouted sorghum  
and their performance on ethanol  
production  
S. Yan, X. Wu, J. Dahlberg, F.  
MacRitchie, J.D. Wilson, D. Wang  
Journal of Cereal Science, 51(3):374-  
380, 2010
- 09-313-J Effect of nozzle type and water volume  
on dollar spot control in greens-height  
creeping bentgrass  
M.M. Kennelly, R.E. Wolf  
Applied Turfgrass Science, 2008  
doi:10.1094/ATS-2009-0921-01-RS
- 09-330-J Comparison of methods for extracting  
kafirin proteins from sorghum distillers  
dried grains with solubles  
Y. Wang, M. Tilley, S. Bean, S. Sun, D.  
Wang  
Journal of Agricultural and Food  
Chemistry, 57(18):8366-8372, 2009
- 10-103-S Dairy Research 2009  
Multiple authors  
Coordinating author: J. Stevenson  
KS Agric. Exp. Stn. Report of Prog.  
1021, December 2009
- 10-133-S 2010 Chemical Weed Control for Field  
Crops, Pastures, Rangeland, and  
Noncropland  
Multiple authors  
Coordinating author: D. Peterson  
KS Agric. Exp. Stn. Report of Prog.  
1027, January 2010
- 10-159-J Evaluation and characterization of  
sorghum biomass as feedstock for sugar  
production  
K. Theerarattananoon, X. Wu, S.  
Staggenborg, J. Propheter, R. Madl, D.  
Wang  
Transactions of the ASABE, 53(2):509-  
525, 2010
- 10-293-S Field Day 2010, Southwest Research  
Extension Center  
Multiple authors  
KS Agric. Exp. Stn. Report of Prog.  
1034, June 2010
- 10-305-A Estimating sward forage mass and crude  
protein  
J.L. Moyer, R.R. Price, J.J. Higgins,  
L.W. Lomas  
Proceedings of the American Forage  
and Grassland Council Conference  
Springfield, MO, June 2010, pp. 6
- 10-327-A Comparison of different pretreatment  
methods on cellulosic conversion of  
photoperiod-sensitive sorghum  
F. Xu, Y-C. Shi, D. Wang  
2010 ASABE Annual International  
Meeting  
Pittsburgh, PA, June 21-June 24, 2010,  
Paper No. 1008872
- Publications without contribution numbers
- Laboratory scale electrostatically  
assisted wet scrubber for controlling  
dust in livestock buildings  
E. Almuhanha, R.G. Maghirang, J.P.  
Murphy, L.E. Erickson  
Applied Engineering in Agriculture,  
25(5):745-750, 2009
- Simultaneous monitoring of stored  
grain with relative humidity,  
temperature, and carbon dioxide sensors  
H.B. Gonzales, P.R. Armstrong, R.G.  
Maghirang  
Applied Engineering in Agriculture,  
25(4):595-604, 2009



## Biology

- 06-050-J Age-specific survival and probable causes of mortality in female lesser prairie-chickens  
C.A. Hagen, J.C. Pitman, B.K. Sandercock, R.J. Robel, R.D. Applegate  
Journal of Wildlife Management, 71:518-525, 2007
- 06-094-J Long-term response patterns of tallgrass prairie to frequent summer burning  
E.G. Towne, K.E. Kemp  
Journal of Rangeland Ecology & Management, 61:509-520, 2008
- 06-200-J Weight loss via exercise with controlled dietary intake may affect phospholipid profile for cancer prevention in murine skin tissues  
P. Ouyang, Y. Jiang, H.M. Doan, L. Xie, D. Vasquez, R. Welti, Z. Su, N. Lu, B. Herndon, S-S. Yang, R. Jeannotte, W. Wang  
Cancer Prevention Research, 3(4):466-477, 2010
- 07-162-J Spatial variation in lesser prairie-chicken demography: A sensitivity analysis of population dynamics and management alternatives  
C.A. Hagen, B.K. Sandercock, J.C. Pitman, R.J. Robel  
Journal of Wildlife Management, 73:1325-1332, 2009
- 07-204-J Mutation of juxtamembrane cysteines in the tetraspanin CD81 affects palmitoylation and alters interaction with other proteins at the cell surface  
C. Delandre, T.R. Penabaz, A.L. Passarelli, S.K. Chapes, R.J. Clem  
Experimental Cell Research, 315:1953-1963, 2009
- 07-247-J Grasshopper (Orthoptera: Acrididae) communities respond to fire, bison grazing and weather in North American tallgrass prairie: A long-term study  
J.L. Jonas, A. Joern  
Oecologia, 153:699-711, 2007
- 07-250-J Consumption of mycorrhizal and saprophytic fungi by Collembola in grassland soils  
J.L. Jonas, G.W.T. Wilson, P.M. White, A. Joern  
Soil Biology and Biochemistry, 39:2594-2602, 2007
- 08-041-J Thresholds in macroinvertebrate biodiversity and stoichiometry across water-quality gradients in Central Plains (USA) streams  
M.A. Evans-White, W.K. Dodds, D.G. Huggins, D.S. Baker  
Journal of the North American Benthological Society, 28:855-868, 2009  
doi:10.1899/08-113.1
- 08-175-J Interactive changes between macrophages and adipocytes  
L. Xie, M.T. Ortega, S. Mora, S.K. Chapes  
Clinical Vaccine Immunology, 17:651-659, 2010
- 08-304-J Analysis of repetitive DNA distribution patterns in the *Tribolium castaneum* genome  
S. Wang, M.D. Lorenzen, R.W. Beeman, S.J. Brown  
Genome Biology, 9:R61, 2008  
doi:10.1186/gb2008-9-3-r61
- 09-001-B Laws, theories and patterns in ecology  
W.K. Dodds  
Berkeley, CA: University of California Press, pp. 256, 2009
- 09-046-J Movement behavior of red flour beetle: Response to habitat cues and patch boundaries  
S.A. Romero, J.F. Campbell, J.R. Nechols, K.A. With  
Environmental Entomology, 39:919-929, 2010
- 09-058-J Stream discharge and riparian land use influence in-stream concentrations and loads of phosphorus from Central Plains watersheds  
E.B.K. Banner, A.J. Stahl, W.K. Dodds  
Environmental Management, 44:552-565, 2009  
doi:10.1007/s00267-009-9332-6

- 09-210-J FT-IR microspectroscopy enhances biological and ecological analysis of algae  
J.N. Murdock, D.L. Wetzel  
Applied Spectroscopy Reviews, 44(4):335-361, 2009
- 09-218-J Variation in gene expression of *Andropogon gerardii* in response to altered environmental conditions associated with climate change  
S.E. Travers, Z. Tang, D. Caragea, K.A. Garrett, S.H. Hulbert, J.E. Leach, J. Bai, A. Saleh, A.K. Knapp, P.A. Fay, J. Nippert, P.S. Schnable, M.D. Smith  
Journal of Ecology, 98:374-383, 2010
- 09-220-J Virion-associated viral fibroblast growth factor stimulates cell motility  
C. Lehiy, O. Martinez, A.L. Passarelli  
Virology, 395:152-160, 2009
- 09-248-J Annual fire and mowing alter biomass, depth distribution, and C and N content of roots and soil in tallgrass prairie  
D.J. Kitchen, J.M. Blair, M.A. Callahan, Jr.  
Plant and Soil, 323:235-247, 2009  
doi:10.1007/s11104-009-9931-2
- 09-327-J Horizontal transfer of the tetracycline resistance gene *tetM* mediated by pCF10 among *Enterococcus faecalis* in the house fly (*Musca domestica* L.) alimentary canal  
M. Akhtar, H. Hirt, L. Zurek  
Microbial Ecology, 58:509-518, 2009
- 09-329-J Consumer return chronology alters recovery trajectory of stream ecosystem following drought  
J.N. Murdock, K.B. Gido, W.K. Dodds, K.N. Bertrand, M.R. Whiles  
Ecology, 91:1048-1062, 2010
- 09-349-J *Ehrlichia chaffeensis* infections in *Drosophila melanogaster*  
A. Luce-Fedrow, T. Von Ohlen, S.K. Chapes  
Infection and Immunity, 77:4815-4826, 2009
- 09-356-J Quantitative characterization of polar lipids from wheat whole-meal, flour, and starch  
S.M. Finnie, R. Jeannotte, J.M. Faubion  
Cereal Chemistry, 86(6):637-645, 2009
- 09-357-J Variation in polar lipids located on the surface of wheat starch  
S.M. Finnie, R. Jeannotte, C.F. Morris, M. Giroux, J.F. Faubion  
Journal of Cereal Science, 51:73-80, 2010
- 09-358-J Variation in polar lipids composition with near-isogenic wheat lines containing different puroindoline haplotypes  
S.M. Finnie, R. Jeannotte, C.F. Morris, M. Giroux, J.F. Faubion  
Journal of Cereal Science, 51:66-72, 2010
- 09-389-J Membrane lipid composition and heat tolerance in cool-season turfgrasses including a hybrid bluegrass  
K. Su, D.J. Bremer, R. Jeannotte, C. Yang, R. Welti  
Journal of the American Society for Horticultural Science, 134(5):511-520, 2009
- 10-052-J Viral fibroblast growth factor, matrix metalloproteases, and caspases are associated with enhancing systemic infection by baculoviruses  
J.C. Means, A.L. Passarelli  
Proceedings of the National Academy of Sciences, USA, 107(21):9825-9830, 2010
- 10-088-J Erratum: Influence of spatial positioning within stream networks on fish assemblage structure in the Kansas River basin, USA  
D.J. Thornbrugh, K.B. Gido  
Canadian Journal of Fisheries and Aquatic Sciences, 67(3):596-596, 2010
- 10-097-J Male Cd81 knockout genotype disrupts Mendelian distribution of offspring  
W.J. Mordica, R.J. Gallagher, J.L. Kennedy, S.K. Chapes  
Comparative Medicine, 60(3):196-199, 2010

- 10-124-J The woodland vole on Konza Prairie Biological Station, Kansas  
D.W. Kaufman, G.A. Kaufman  
Transactions of the Kansas Academy of Science, 112:229-230, 2009
- 10-198-J *Caenorhabditis elegans* genomic response to soil bacteria predicts environment-specific genetic effects on life history traits  
J.D. Coolon, K.L. Jones, T.C. Todd, B.C. Carr, M.A. Herman  
PLoS Genetics, 5(6):e1000503.  
doi:10.1371/journal.pgen.1000503

Publications without contribution numbers

Contingent productivity responses to more extreme rainfall regimes across a grassland biome  
J.L. Heisler-White, J.M. Blair, E.F. Kelly, K. Harmony, A.K. Knapp  
Global Change Biology, 15(12):2894-2904, 2009  
doi:10.1111/j.1365-2486.2009.01961.x

Discovery of *Plasmodium* modulators by genome-wide analysis of circulating hemocytes in *Anopheles gambiae*  
S.B. Pinto, F. Lombardo, A.C. Koutsos, R.M. Waterhouse, K. McKay, C. An, K. Ramakrishnan, F.C. Kafatos, K. Michel  
Proceedings of the National Academy of Sciences, 106(50):21270-21275, 2009

Highly polymorphic microsatellites in the North American Snakeweed Grasshopper, *Hesperotettix viridis*  
T. Grace, A. Joern, J.L. Apple, S.J. Brown, S.M. Wisely  
Journal of Orthoptera Research, 18(1):19-21, 2009  
doi:10.1665/034.018.0111

Microsatellite isolation and development in the Eastern yellowbelly racer (*Coluber constrictor flaviventris*) for use in landscape genetic studies  
P.E. With, K.A. With, S.M. Wisely  
(Molecular Ecology Resources database accessions 37758–37769).  
<http://tomato.biol.trinity.edu/>. Cited as: Molecular Ecology Resources Primer Development Consortium et al. 2009. Permanent Genetic Resources added to Molecular Ecology Resources Database 1 May 2009–31 July 2009. Molecular Ecology Resources 9:1460-1466.

Non-destructive determination of age and species of *Anopheles gambiae* s.l. using near-infrared spectroscopy  
V.S. Mayagaya, K. Michel, M.Q. Benedict, G.F. Killeen, R.A. Wirtz, H.M. Ferguson, F.E. Dowell  
American Journal of Tropical Medicine and Hygiene, 81(4):622-630, 2009.

## Chemical Engineering

- 08-337-J Evaluation and characterization of forage sorghum as feedstock for fermentable sugar production  
D.Y. Corredor, J.M. Salazar, K.L. Hohn, S. Bean, B. Bean, D. Wang  
Applied Biochemistry and Biotechnology, 158(1):164-179, 2009
- 09-089-J Grain-based activated carbons for natural gas storage  
T. Zhang, W.P. Walawender, L.T. Fan  
Bioresource Technology, 101(6):1983-1991, 2010

Publications without contribution numbers:

Stochastic simulation of disinfection of bacteria: Non-linear approach  
A. Argoti, L.T. Fan, S.T. Chou  
8th World Congress of Chemical Engineering  
Montreal, Canada, 2009

## Clinical Sciences

- 09-173-J Prevalence of *Escherichia coli* O157:H7 in gut contents of beef cattle at slaughter  
C. Walker, X. Shi, M. Sanderson, J. Sargeant, T.G. Nagaraja  
Foodborne Pathogens and Disease, 7:249-255, 2010
- 09-300-J Plasma pharmacokinetics of oral chlortetracycline in group fed, ruminating, Holstein steers in a feedlot setting  
J.B. Reinbold, J.F. Coetzee, R. Gehring, J.A. Havel, L.C. Hollis, KC Olson, M.D. Apley  
Journal of Veterinary Pharmacology and Therapeutics, 33(1):76-83, 2010
- 09-337-J Porcine vas deferens luminal pH is acutely increased by systemic xylazine administration  
F. Pierucci-Alves, C.L. Duncan, J.D. Lillich, B.D. Schultz  
Biology of Reproduction, 82(1):132-135, 2010
- Publications without contribution numbers
- Cultured mammary epithelial monolayers (BME-UV) express functional organic anion and cation transporters  
M.M. Al-Bataineh, D. van der Merwe, B.D. Schultz, R. Gehring  
Journal of Veterinary Pharmacology and Therapeutics, 32:422-428, 2009

## Computer Science

- 09-218-J Variation in gene expression of *Andropogon gerardii* in response to altered environmental conditions associated with climate change  
S.E. Travers, Z. Tang, D. Caragea, K.A. Garrett, S.H. Hulbert, J.E. Leach, J. Bai, A. Saleh, A.K. Knapp, P.A. Fay, J. Nippert, P.S. Schnable, M.D. Smith  
Journal of Ecology, 98:374-383, 2010

## Diagnostic Medicine/Pathobiology

- 05-234-J Effect of ractopamine dose and feeding duration on pig performance in a commercial finishing facility  
R.G. Main, S.S. Dritz, M.D. Tokach, R.D. Goodband, J.L. Nelssen  
Journal of Swine Health and Production, 17:134-139, 2009
- 06-049-J Expression of porcine Toll-like receptor 2, 4 and 9 gene transcripts in the presence of lipopolysaccharide and *Salmonella enterica* serovars Typhimurium and Choleraesuis  
T.E. Burkey, K.A. Skjolaas, S.S. Dritz, J.E. Minton  
Veterinary Immunology and Immunopathology, 130(1-2):96-101, 2009
- 06-232-J Effects of melengestrol acetate on L-selectin and  $\beta$ 2-integrin expression of polymorphonuclear leukocytes from heifers challenged with lipopolysaccharide  
M.E. Corrigan, J.S. Drouillard, C.R. Wyatt, E.R. Loe, B.E. Depenbusch, A.S. Webb, M.J. Quinn, H-F. Wang, J.J. Higgins  
International Journal of Applied Research in Veterinary Medicine, 7:169-180, 2009
- 07-270-J Determining the effect of lysine:calorie ratio on growth performance of ten- to twenty-kilogram of body weight nursery pigs of two different genotypes  
J.D. Schneider, M.D. Tokach, S.S. Dritz, J.L. Nelssen, J.M. DeRouchey, R.D. Goodband  
Journal of Animal Science, 88:137-146, 2010
- 08-045-J Effects of feeding elevated concentrations of supplemental copper and zinc on the antimicrobial susceptibility profiles of fecal bacteria in feedlot cattle  
M.E. Jacob, J.T. Fox, T.G. Nagaraja, J.S. Drouillard, S.K. Narayanan  
Foodborne Pathogens and Disease, 7(6):643-648, 2010

- 08-233-J Effects of irradiation of feed ingredients added to meal of pelleted diets on growth performance of weanling pigs  
C.N. Groesbeck, J.M. DeRouchey, M.D. Tokach, R.D. Goodband, S.S. Dritz, J.L. Nelssen  
Journal of Animal Science, 87:3997-4002, 2009
- 08-294-J Prevalence of *Escherichia coli* O157:H7 in organically and naturally raised beef cattle  
S. Reinstein, J.T. Fox, X. Shi, M.J. Alam, D.G. Renter, T.G. Nagaraja  
Applied and Environmental Microbiology, 75(16):5421-5423, 2009
- 09-127-J The role of cholesterol pathways in norovirus replication  
K-O. Chang  
Journal of Virology, 83:8587-8595, 2009
- 09-173-J Prevalence of *Escherichia coli* O157:H7 in gut contents of beef cattle at slaughter  
C. Walker, X. Shi, M. Sanderson, J. Sargeant, T.G. Nagaraja  
Foodborne Pathogens and Disease, 7:249-255, 2010
- 09-261-J Dietary interactions and interventions affecting *Escherichia coli* O157 colonization and shedding in cattle  
M.E. Jacob, T.R. Callaway, T.G. Nagaraja  
Foodborne Pathogens and Disease, 6:785-792, 2009
- 09-290-J Efficacy of commercial enzymes in diets containing various concentrations and sources of dried distillers grains with solubles for nursery pigs  
C.K. Jones, J.R. Bergstrom, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J.L. Nelssen, S.S. Dritz  
Journal of Animal Science, 88:2084-2091, 2010
- 09-291-J Effects of fermented soybean meal and specialty animal protein sources on nursery pig performance  
C.K. Jones, J.M. DeRouchey, J.L. Nelssen, M.D. Tokach, S.S. Dritz, R.D. Goodband  
Journal of Animal Science, 88:1725-1732, 2010
- 09-327-J Horizontal transfer of the tetracycline resistance gene *tetM* mediated by pCF10 among *Enterococcus faecalis* in the house fly (*Musca domestica* L.) alimentary canal  
M. Akhtar, H. Hirt, L. Zurek  
Microbial Ecology, 58:509-518, 2009
- 09-362-J Survival of *Enterococcus faecalis* (OG1RF:pCF10) in poultry and cattle feed: Vector competence of the red flour beetle, *Tribolium castaneum* (Herbst)  
H.C. Lakshmikantha, B. Subramanyam, L. Zurek  
Journal of Food Protection, 73:568-573, 2009
- 09-387-J Oral inoculation with *Salmonella enterica* serovar Typhimurium or Choleraesuis promotes divergent responses in the somatotropic growth axis of swine  
B.L. Davis, J.N. Fraser, T.E. Burkey, K.A. Skjolaas, S.S. Dritz, B.J. Johnson, J.E. Minton  
Journal of Animal Science, 88(5):1642-1648, 2010
- 09-388-J Interaction of *Bacillus* species and *Salmonella enterica* serovar Typhimurium in immune or inflammatory signaling from swine intestinal epithelial cells  
C.C. Aperce, T.E. Burkey, B. KuKanich, B.A. Crozier-Dodson, S.S. Dritz, J.E. Minton  
Journal of Animal Science, 88(5):1649-1656, 2010
- 09-395-J An insight into the transcriptome and proteome of the salivary gland of the stable fly, *Stomoxys calcitrans*  
X. Wang, J.M. Ribeiro, A.B. Broce, M.J. Wilkerson, M.R. Kanost  
Insect Biochemistry and Molecular Biology, 39:607-614, 2009

- 10-014-S Swine Day 2009  
Multiple authors  
Coordinating author: R. Goodband  
KS Agric. Exp. Stn. Report of Prog.  
1020, November 2009
- 10-015-J Genetic relatedness of *Escherichia coli*  
O157 isolates from cattle feces and  
preintervention beef carcasses  
C.C. Dodd, D.G. Renter, J.T. Fox, X.  
Shi, M.W. Sanderson  
Foodborne Pathogens Disease,  
7(4):357-65, 2010
- 10-084-J A benefit of high temperature:  
Increased effectiveness of a rice  
bacterial blight disease resistance gene  
K.M. Webb, I. Ona, J. Bai, K.A.  
Garrett, T. Mew, C.M. Vera Cruz, J.E.  
Leach  
New Phytologist, 185:568-576, 2010
- 10-126-J Animal- and truckload-level  
associations between *Escherichia coli*  
O157:H7 in feces and on hides at  
harvest and contamination of  
preevisceration beef carcasses  
M.E. Jacob, D.G. Renter, T.G. Nagaraja  
Journal of Food Protection, 73:1030-  
1037, 2010

Publications without contribution numbers

- Antimicrobial host defense peptides in  
an arteriviral infection: Differential  
peptide expression and virus  
inactivation  
Y. Sang, P. Ruchala, R.I. Lehrer, C.R.  
Ross, R.R.R. Rowland, F. Blecha  
Viral Immunology, 22(4):235-242,  
2009
- Challenges involved in the Salmonella  
Saintpaul outbreak and lessons learned  
E. Taylor, J. Kastner, D. Renter  
Journal of Public Health Management  
and Practice, 16:221-231, 2010
- Cultured mammary epithelial  
monolayers (BME-UV) express  
functional organic anion and cation  
transporters  
M.M. Al-Bataineh, D. van der Merwe,  
B.D. Schultz, R. Gehring  
Journal of Veterinary Pharmacology  
and Therapeutics, 32:422-428, 2009

**Entomology**

- 08-142-J A review of stored-product entomology  
information sources  
D.W. Hagstrum, B. Subramanyam  
American Entomologist, 55:174-183,  
2009
- 08-151-J Aphid feeding activates expression of a  
transcriptome of oxylipin-based defense  
signals in wheat involved in resistance  
to herbivory  
C.M. Smith, X.M. Liu, L.J. Wang, X.  
Liu, M.S. Chen, S. Starkey, J. Bai  
Journal of Chemical Ecology, 36:260-  
276, 2010
- 08-194-J Differential responses of wheat  
inhibitor-like genes to Hessian fly  
(*Mayetiola destructor*) attacks during  
compatible and incompatible  
interactions  
J. Wu, X. Liu, S. Zhang, Y.C. Zhu, R.J.  
Whitworth, M.S. Chen  
Journal of Chemical Ecology, 34:1005-  
1012, 2008
- 08-360-J Mechanical properties of insect cuticle,  
a hierarchically ordered biomaterial  
J. Lomakin, C. Eichler, Y. Arakane,  
K.J. Kramer, S. Muthukrishnan, R.W.  
Beeman, M.R. Kanost, S.H. Gherke  
Biomacromolecules, 100:470-471, 2009
- 08-385-J Registration of K1639-2 soybean  
germplasm resistant to soybean cyst  
nematode and soybean aphid  
W.T. Schapaugh, J. Meng, T. Todd, J.  
Reese, J. Diaz-Montano, C.M. Smith  
Journal of Plant Registrations, 4(1):67-  
69, 2010
- 09-005-J Foraging on and consumption of two  
species of papaya pest mites,  
*Tetranychus kanzawai* and *Panonychus*  
*citri* (Acari: Tetranychidae) by *Mallada*  
*basalis* (Neuroptera: Chrysopidae)  
L.L. Cheng, J.R. Nechols, D.C.  
Margolies, J.F. Campbell, P.S. Yang,  
C.C. Chen, C.T. Lu  
Environmental Entomology, 38:715-  
722, 2009

- 09-024-J Multiple season reductions in herbicide, downy brome (*Bromus tectorum*), and irrigation in corn  
R.S. Currie, N.L. Klocke, H.N. Davis, L.L. Buschman  
Weed Technology, 23(3):371-378, 2009
- 09-046-J Movement behavior of red flour beetle: Response to habitat cues and patch boundaries  
S.A. Romero, J.F. Campbell, J.R. Nechols, K.A. With  
Environmental Entomology, 39:919-929, 2010
- 09-078-J Identification, RNAi knockdown, and functional analysis of an ejaculate protein that mediates a postmating, prezygotic phenotype in a cricket  
J.L. Marshall, D.L. Huestis, Y. Hiromasa, S. Wheeler, C. Oppert, S.A. Marshall, J.M. Tomich, B. Oppert  
PLOS One, 4(10):e7537, 2009  
doi:10.1371/journal.pone.0007537
- 09-114-J Plant spacing and weed control affect sunflower stalk insects and the girdling behavior of *Dectes texanus* (Coleoptera: Cerambycidae)  
J.P. Michaud, P.A. Stahlman, J.L. Jyoti, A.K. Grant  
Journal of Economic Entomology, 102:1044-1053, 2009
- 09-124-J Identification of variants of the High Plains virus infecting wheat in Kansas  
D.L. Seifers, T.J. Martin, T.L. Harvey, S. Haber, O. Krokhin, V. Spicer, S. Ying, K.G. Standing  
Plant Disease, 93(12):1265-1274, 2009
- 09-148-J The nature of resistance to *Dectes texanus* (Col., Cerambycidae) in wild sunflower, *Helianthus annuus*  
J.P. Michaud, A.K. Grant  
Journal of Applied Entomology, 133:518-523, 2009
- 09-177-J Global phylogenetics of *Diuraphis noxia* (Hemiptera: Aphididae), an invasive aphid species: Evidence for multiple invasions into North America  
X. Liu, J.L. Marshall, P. Stary, O. Edwards, G. Puterka, L. Dolatti, M.E. Bouhssini, J. Malinga, C.M. Smith  
Journal of Economic Entomology, 103:958-965, 2010
- 09-229-J Efficacy of methoprene applied at different temperatures and rates on surface substrates to control eggs and fifth instars of *Plodia interpunctella*  
Hübner  
E.A. Jenson, F.H. Arthur, J.R. Nechols  
Journal of Economic Entomology, 102:1992-2002, 2009
- 09-251-J Inheritance and categories of resistance in wheat to Russian wheat aphid (Hemiptera: Aphididae) biotype 1 and biotype 2  
S.A. Khan, M. Murugan, S. Starkey, A. Manley, C.M. Smith  
Journal of Economic Entomology, 102:1654-1662, 2009
- 09-271-J The foraging behavior of *Lysiphlebus fabarum* (Marshall), a thelytokous parasitoid of the black bean aphid in Iran  
A. Rasekh, J.P. Michaud, A. Kharazi-Pakdel, H. Allahyari, E. Soleymannejadian  
Journal of Insect Behavior, 23:165-179, 2010
- 09-277-J Efficacy of an esfenvalerate plus methoprene aerosol for the control of eggs and fifth instars of *Plodia interpunctella* (Lepidoptera: Pyralidae)  
E.A. Jenson, F.H. Arthur, J.R. Nechols  
Insect Science, 17:21-28, 2010
- 09-278-J Transgenesis and paratransgenesis to control insect-borne diseases: Current status and future challenges  
I.V. Coutinho-Abrea, K.Y. Zhu, M. Ramalho-Ortigao  
Parasitology International, 59(1):1-8, 2010

- 09-289-J Assessment of house fly dispersal between rural and urban habitats in Kansas, USA  
S. Chakrabarti, S. Kambhampati, L. Zurek  
Journal of the Kansas Entomological Society, 83:172-188, 2010
- 09-306-J Assessment of prey preference by the generalist predator, *Mallada basalis* (Walker) (Neuroptera: Chrysopidae), when offered two species of spider mites, *Tetranychus kanzawai* Kishida and *Panonychus citri* (McGregor) (Acari: Tetranychidae), on papaya  
L. Cheng, J.R. Nechols, D.C. Margolies, J.F. Campbell, P.S. Yang  
Biological Control, 53:267-272, 2010
- 09-310-J Methoprene and synergized pyrethrins as an aerosol treatment to control *Plodia interpunctella* (Hubner), the Indian meal moth (Lepidoptera: Pyralidae)  
E.A. Jenson, F.H. Arthur, J.R. Nechols  
Journal of Stored Products Research, 46:103-110, 2010
- 09-327-J Horizontal transfer of the tetracycline resistance gene *tetM* mediated by pCF10 among *Enterococcus faecalis* in the house fly (*Musca domestica* L.) alimentary canal  
M. Akhtar, H. Hirt, L. Zurek  
Microbial Ecology, 58:509-518, 2009
- 09-348-J Characterization of the stable fly (Diptera : Muscidae) larval developmental habitat at round hay bale feeding sites  
J. Talley, A. Broce, L. Zurek  
Journal of Medical Entomology, 46(6):1310-1319, 2009
- 09-362-J Survival of *Enterococcus faecalis* (OG1RF:pCF10) in poultry and cattle feed: Vector competence of the red flour beetle, *Tribolium castaneum* (Herbst)  
H.C. Lakshmikantha, B. Subramanyam, L. Zurek  
Journal of Food Protection, 73:568-573, 2009
- 09-369-J Biorational approaches to managing stored-product insects  
T.W. Phillips, J.E. Throne  
Annual Review of Entomology, 55:375-397, 2010
- 09-391-J Plant architecture, prey distribution and predator release strategy interact to affect foraging efficiency of the predatory mite *Phytoseiulus persimilis* (Acari: Phytoseiidae) on cucumber  
L.M. Gontijo, D.C. Margolies, J.R. Nechols, R.A. Cloyd  
Biological Control, 53:136-141, 2010
- 09-395-J An insight into the transcriptome and proteome of the salivary gland of the stable fly, *Stomoxys calcitrans*  
X. Wang, J.M. Ribeiro, A.B. Broce, M.J. Wilkerson, M.R. Kanost  
Insect Biochemistry and Molecular Biology, 39:607-614, 2009
- 10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1007, August 2009
- 10-046-J Sulfuryl flouride fumigation effects on the safety, volatile composition, and sensory quality of dry cured ham  
R.K. Sekhon, M.W. Schilling, T.W. Phillips, M.J. Aikins, M.M. Hasan, W.B. Mikel  
Meat Science, 84:505-511, 2010
- 10-048-J Mass-rearing of the redlegged ham beetle, *Necrobia rufipes* De Geer (Coleoptera: Cleridae) for laboratory research  
M.M. Hasan, T.W. Phillips  
Journal of Stored Products Research, 46:38-42, 2010
- 10-151-S 2009 Kansas Performance Tests with Corn Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1019, November 2009



10-160-S 2009 Kansas Performance Tests with Grain Sorghum Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1023, December 2009

Publications without contribution numbers:

EST sequencing of blood-fed and Leishmania-infected midgut of *Lutzomyia longipalpis*, the principal visceral leishmaniasis vector in the Americas  
A.N. Pitaluga, V. Beteille, A.R. Lobo, J.R.O. Farias, A.M. Dávila, A.A. Souza, J.M. Ramalho-Ortigao, Y.M. Traub Cseko  
Molecular Genetics and Genomics, 282:307-317, 2009

Effects of cowpea varietal susceptibility and low pressure on the mortality of life stages of *Callosobruchus maculatus* (Coleoptera: Bruchidae)  
G.N. Mbata, T.W. Phillips, M.W.E. Payton  
Journal of Stored Product Research, 45:232-235, 2009

High Plains sunflower production handbook  
Multiple authors  
Coordinating author: J.P. Michaud  
KS Agric. Exp. Stn. MF2384, 2009

Insect population dynamics in commercial grain elevators  
P.W. Flinn, D.W. Hagstrum, C. Reed, T.W. Phillips  
Journal of Stored Product Research, 46:43-47, 2010

Ecology and IPM of insects at grain elevators and flat storages  
D.W. Hagstrum, P.W. Flinn, C.R. Reed, T.W. Phillips  
Biopesticides International, 6:1-20, 2010

## Food Science Institute

09-133-J Evaluation of two thermal processing schedules at low relative humidity for elimination of *Escherichia coli* O157:H7 and *Salmonella* serovars in chopped and formed beef jerky  
N. Harper, M.N. Roberts, K.J.K. Getty, E.A.E. Boyle, D.Y.C. Fung  
Journal of Food Protection, 72(12):2476-2482, 2009

## Geography

09-169-J SWAT discharge response to spatial rainfall variability in a Kansas watershed  
P. Tuppad, K.R. Douglas-Mankin, J.K. Koelliker, J.M.S. Hutchinson  
Transactions of the ASABE, 2010

## Grain Science and Industry

05-130-J Improved water resistance of soy protein adhesive at isoelectric point  
D. Wang, X.S. Sun, G. Yang, Y. Wang  
Transactions of the ASABE, 52(1):173-177, 2009

08-142-J A review of stored-product entomology information sources  
D.W. Hagstrum, B. Subramanyam  
American Entomologist, 55:174-183, 2009

08-239-J FT-IR microscopic imaging of plant material  
D.L. Wetzel  
In: Infrared and raman spectroscopic imaging, R. Salzer, H.W. Siesler (Eds.). Weinheim, Germany: Wiley-VCH Verlag GmbH & Co. KGaA, pp. 225-258, 2009

08-377-J Effect of an enzyme preparation on wheat flour and dough color, mixing, and test baking  
B.P. Lamsal, J.M. Faubion  
Food and Science Technology, 42:1461-1467, 2009

- 09-009-J Germination-improved ethanol fermentation performance of high-tannin sorghum in a laboratory dry-grind process  
S. Yan, X. Wu, F. MacRitchie, D. Wang  
Cereal Chemistry, 86(6):597-600, 2009
- 09-026-J Innovative FT-IR imaging of protein film secondary structure before and after heat treatment  
E.S. Bonwell, D.L. Wetzel  
Journal of Agricultural and Food Chemistry, 57(21):10067-10072, 2009
- 09-060-J Sodium bisulfite-induced changes in physiochemical, surface and adhesive properties of soy  $\beta$ -conglycinin  
L. Zhang, X.S. Sun  
Journal of the American Oil Chemists' Society, 87(5):583-590, 2009
- 09-130-J Ice cream: Foam formation and stabilization - A review  
X. E, Z.J. Pei, K.A. Schmidt  
Food Reviews International, 26(2):122-137, 2010
- 09-139-J Determination of phytic acid in cereals - A brief review  
P. Wu, J.C. Tian, C.E. Walker, F.C. Wang  
International Journal of Food Science and Technology, 44:1671-1676, 2009
- 09-150-J Effects of alkaline treatment on the structure of phosphorylated wheat starch and its digestibility  
Y. Sang, P.A. Seib, A.I. Herrera, O. Prakash, Y-C. Shi  
Food Chemistry, 118:323-327, 2010
- 09-178-J Dough rheology and wet milling of hard waxy wheat flours  
L. Guan, P.A. Seib, R.A. Graybosch, S. Bean, Y-C. Shi  
Journal of Agricultural and Food Chemistry, 57:7030-7038, 2009
- 09-179-J Phenotypic expression in wheat revealed using FT-IR microspectroscopy  
L.R. Brewer, D.L. Wetzel  
Vibrational Spectroscopy, 52(1):93-96, 2009
- 09-210-J FT-IR microspectroscopy enhances biological and ecological analysis of algae  
J.N. Murdock, D.L. Wetzel  
Applied Spectroscopy Reviews, 44(4):335-361, 2009
- 09-252-J Subzero glass transition of waxy maize starch studied by differential scanning calorimetry  
Y. Sang, Y-C. Shi, S. Alavi  
Starch, 61(12):687-695, 2009
- 09-266-J Consumption of cross-linked resistant starch (type RS4XL) on glucose and insulin responses in humans  
E.K. Al-Tamimi, P.A. Seib, B.S. Snyder, M.D. Haub  
Journal of Nutrition and Metabolism, 2009  
doi:10.1155/2010/651063
- 09-270-J Ethanol production from orange peels: Two-stage hydrolysis and fermentation studies using optimized parameters through experimental design  
H.S. Oberoi, P.V. Vadlani, L. Saida, J.P. Abeykoon, R.L. Madl  
Journal of Agriculture & Food Chemistry, 58(6):3422-3429, 2010
- 09-284-J Effect of peptide sequence on surface properties and self-assembly of an amphiphilic pH-responsive peptide  
J.N. Shera, X.S. Sun  
Biomacromolecules, 10:2446-2450, 2009
- 09-301-J Underlying reasons for waxy rice flours having different pasting properties  
L-J. Zhu, Q-Q. Liu, Y-J. Sang, M-H. Gu, Y-C. Shi  
Food Chemistry, 120(1):94-100, 2010
- 09-312-J Properties of field-sprouted sorghum and their performance on ethanol production  
S. Yan, X. Wu, J. Dahlberg, F. MacRitchie, J.D. Wilson, D. Wang  
Journal of Cereal Science, 51(3):374-380, 2010

- 09-330-J Comparison of methods for extracting kafirin proteins from sorghum distillers dried grains with solubles  
Y. Wang, M. Tilley, S. Bean, S. Sun, D. Wang  
Journal of Agricultural and Food Chemistry, 57(18):8366-8372, 2009
- 09-340-J Effect of sieve tension in quadrumat senior laboratory milling  
R.A. Miller, J.A. Gwartz  
Cereal Chemistry, 86(6):665-668, 2009
- 09-356-J Quantitative characterization of polar lipids from wheat whole-meal, flour, and starch  
S.M. Finnie, R. Jeannotte, J.M. Faubion  
Cereal Chemistry, 86(6):637-645, 2009
- 09-357-J Variation in polar lipids located on the surface of wheat starch  
S.M. Finnie, R. Jeannotte, C.F. Morris, M. Giroux, J.F. Faubion  
Journal of Cereal Science, 51:73-80, 2010
- 09-358-J Variation in polar lipids composition with near-isogenic wheat lines containing different puroindoline haplotypes  
S.M. Finnie, R. Jeannotte, C.F. Morris, M. Giroux, J.F. Faubion  
Journal of Cereal Science, 51:66-72, 2010
- 09-362-J Survival of *Enterococcus faecalis* (OG1RF:pCF10) in poultry and cattle feed: Vector competence of the red flour beetle, *Tribolium castaneum* (Herbst)  
H.C. Lakshmikantha, B. Subramanyam, L. Zurek  
Journal of Food Protection, 73:568-573, 2009
- 09-382-J Mechanical and thermal properties, morphology, relaxation characteristics of poly (lactic acid) and soy flour/wood flour blends  
Y. Li, X.S. Sun, K. Venkateshan  
Polymer International, 59(8):1099-1109, 2010
- 10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1007, August 2009
- 10-062-B Analysis of extraneous matter  
H. Dogan, B. Subramanyam, J.R. Pedersen  
In: Food analysis, S. Nielsen (Ed.). New York: Springer, pp. 351-366, 2010
- 10-159-J Evaluation and characterization of sorghum biomass as feedstock for sugar production  
K. Theerarattananoon, X. Wu, S. Staggenborg, J. Propheter, R. Madl, D. Wang  
Transactions of the ASABE, 53(2):509-525, 2010
- 10-185-J Sorghum proteins: The concentration, isolation, modification, and food applications of kafirins  
N.J. de Mesa-Stonestreet, S. Alavi, S.R. Bean  
Journal of Food Science, 75(5):90-104, 2010
- 10-278-J Preparation and characterization of polymer-inorganic nanocomposites by in situ melt polycondensation of L-lactic acid and surface-hydroxylated MgO  
Y. Li, X.S. Sun  
Biomacromolecules, 11:1847-1855, 2010  
doi:10.1021/bm100320q
- 10-327-A Comparison of different pretreatment methods on cellulosic conversion of photoperiod-sensitive sorghum  
F. Xu, Y-C. Shi, D. Wang  
2010 ASABE Annual International Meeting  
Pittsburgh, PA, June 21-June 24, 2010, Paper No. 1008872

## Horticulture, Forestry, and Recreation Resource

- 05-008-J Evaluation of plant defense activators for dollar spot and brown patch control on creeping bentgrass putting greens  
Q. Zhang, J. Fry, N. Tisserat  
International Turfgrass Society Research Journal, 10:180-185, 2005
- 06-155-J Calcium silicate fails to reduce foliar diseases on creeping bentgrass and tall fescue  
J. Fry, Q. Zhang, K. Lowe, N. Tisserat  
Turfgrass Trends, 2006
- 08-123-J Can older gardeners meet the physical activity recommendation through gardening?  
S. Park, C. Shoemaker, M. Haub  
HortTechnology, 18(4):639-643, 2008
- 08-349-J Improved zoysiagrass cultivar could have use in transition zone  
J. Fry, Q. Zhang, D. Okeyo, M. Engelke, D. Genovesi  
Golfdom, Turfgrass Trends, August 1, 2008  
<http://www.golfdom.com/cultivation/improved-zoysia-cultivar-could-have-use-transition>
- 09-032-J Environmental stresses induce health-promoting phytochemicals in lettuce  
M-M. Oh, E. Carey, C.B. Rajashekar  
Plant Physiology and Biochemistry, 47:578-583, 2009
- 09-081-J A model for healthy aging with horticulture  
C.A. Shoemaker, M. Lin  
Acta Horticulturae, 775:93-98, 2008
- 09-092-J How to measure exercise intensity of gardening tasks as a physical activity for older adults using metabolic equivalents  
S. Park, C.A. Shoemaker, M.D. Haub  
Acta Horticulturae, 775:37-40, 2008

- 09-389-J Membrane lipid composition and heat tolerance in cool-season turfgrasses including a hybrid bluegrass  
K. Su, D.J. Bremer, R. Jeannotte, C. Yang, R. Welti  
Journal of the American Society for Horticultural Science, 134(5):511-520, 2009
- 09-392-J Moss control on creeping bentgrass greens with standard and alternative approaches  
M. Kennelly, D.M. Settle, T.C. Todd, J.D. Fry  
HortScience, 45:654-659, 2010

## Hospitality Management and Dietetics

Publications without contribution numbers

- Customer orientation of service employees and rapport: Influences on service-outcome variables in full-service restaurants  
W. Kim, C. Ok  
Journal of Hospitality & Tourism Research, 34(1):34-55, 2010
- Contingency variables for customer share of visits to full-service restaurants  
W. Kim, C. Ok, D. Canter  
International Journal of Hospitality Management, 29(1):136-147, 2010

## Human Nutrition

- 97-392-J The proliferative effects of retinoic acid on primary cultures of adult rat type II pneumocytes depend upon cell density  
R.C. Baybutt, B.W. Smith, E.V. Donskaya, L. Hu, T. Li, W. Wang  
In Vitro Cellular & Developmental Biology – Animal, 2009  
doi:10.1007/s11626-009-9236-z
- 06-200-J Weight loss via exercise with controlled dietary intake may affect phospholipid profile for cancer prevention in murine skin tissues  
P. Ouyang, Y. Jiang, H.M. Doan, L. Xie, D. Vasquez, R. Welti, Z. Su, N. Lu, B. Herndon, S-S. Yang, R. Jeannotte, W. Wang  
Cancer Prevention Research, 3(4):466-477, 2010

- 08-123-J Can older gardeners meet the physical activity recommendation through gardening?  
S. Park, C. Shoemaker, M. Haub  
HortTechnology, 18(4):639-643, 2008
- 09-003-B Lignan biosynthesis enhancement in transgenic wheat  
A.K. Ayella, W. Wang  
In: Agriculture Research and Technonolgy, K. Bundgaard and L. Isaksen (Eds.). Hauppauge, New York: Nova Science Publishers, pp. 441-450, 2010
- 09-016-J Mitochondrial and sarcoplasmic protein changes in hearts from copper deficient rats: Upregulation of PGC1- $\alpha$  transcript and protein as a cause for mitochondrial biogenesis in copper deficiency  
D.M. Medeiros, Y. Jiang, D. Klahsen, D. Lin  
Journal of Nutritional Biochemistry, 20:823-830, 2009
- 09-092-J How to measure exercise intensity of gardening tasks as a physical activity for older adults using metabolic equivalents  
S. Park, C.A. Shoemaker, M.D. Haub  
Acta Horticulturae, 775:37-40, 2008
- 09-117-J Prediction of Japanese colour score  
S.M. Ryan, J.A. Unruh, K. Adhikari, M.C. Hunt, C. Schultz-Kaster, J.O. Matthews  
Meat Science, 84:165-171, 2010
- 09-266-J Cosumption of cross-linked resistant starch (type RS4XL) on glucose and insulin responses in humans  
E.K. Al-Tamimi, P.A. Seib, B.S. Snyder, M.D. Haub  
Journal of Nutrition and Metabolism, 2009  
doi:10.1155/2010/651063
- 10-172-J Selenium, but not lycopene or vitamin E, decreases growth of transplantable dunning R3327-H rat prostate tumors  
B.L. Lindshield, N.A. Ford, K. Canene-Adams, A.M. Diamond, M.A. Wallig, J.W. Erdman, Jr.  
PLOS One, 5(4), 2010

## Plant Pathology

- 05-008-J Evaluation of plant defense activators for dollar spot and brown patch control on creeping bentgrass putting greens  
Q. Zhang, J. Fry, N. Tisserat  
International Turfgrass Society Research Journal, 10:180-185, 2005
- 06-111-J Deletion of chromosome arms altered wheat resistance to Fusarium head blight and deoxynivalenol accumulation in Chinese Spring  
H-X. Ha, G-H. Bai, B.S. Gill, L.P. Hart  
Plant Disease, 90:1545-1549, 2006
- 07-205-J Comparison of natural populations of *Mycosphaerella graminicola* from single fields in Kansas and California  
M. Kabbage, S.H. Hulbert, J.F. Leslie, B. Bockus  
Physiological and Molecular Plant Pathology, 74:55-59, 2009
- 07-207-J Genetic diversity of *Mycosphaerella graminicola*, the causal agent of Septoria leaf blotch, in Kansas winter wheat  
M. Kabbage, S.H. Hulbert, J.F. Leslie, B. Bockus, K. Zeller  
Journal of Agricultural Food and Environmental Sciences, 2(1), 2008
- 08-131-J Intraspecific functional diversity in hosts and its effects on disease risk across a climatic gradient  
K.A. Garrett, L.N. Zuniga, E. Roncal, G.A. Forbes, C.C. Mundt, Z. Su, R.J. Nelson  
Ecological Applications, 19:1868-1883, 2009
- 08-140-J Beyond yield: Plant disease in the context of ecosystem services  
M.R. Cheatham, M.N. Rouse, P.D. Esker, S. Ignacio, W. Pradel, R. Raymundo, A.H. Sparks, G.A. Forbes, T.R. Gordon, K.A. Garrett  
Phytopathology, 99(11):1228-1236, 2009

- 08-151-J Aphid feeding activates expression of a transcriptome of oxylipin-based defense signals in wheat involved in resistance to herbivory  
C.M. Smith, X.M. Liu, L.J. Wang, X. Liu, M.S. Chen, S. Starkey, J. Bai  
Journal of Chemical Ecology, 36:260-276, 2010
- 08-236-J Estimating the risk of crop epidemics from coincident spatiotemporal processes  
M. Haran, L.S. Bhat, J. Molineros, E. De Wolf  
Journal of Agricultural, Biological, and Environmental Statistics, 15:158-175, 2009
- 08-292-J *Pseudomonas syringae* pv. phaseolicola mutants compromised for type III secretion system gene induction  
X. Deng, Y. Xiao, L. Lan, J.M. Zhou, X. Tang  
Molecular Plant-Microbe Interactions, 22:964-976, 2009
- 08-347-B Cytogenetic analysis of wheat and rye genomes  
B.S. Gill, B. Friebe  
In: Genetics and genomics of the Triticeae, plant genetics/genomics: Crops and models, C. Feuillet, G.J. Muehlbauer (Eds.).  
New York, NY: Springer Science and Business Media, pp. 121-135, 2009
- 08-385-J Registration of K1639-2 soybean germplasm resistant to soybean cyst nematode and soybean aphid  
W.T. Schapaugh, J. Meng, T. Todd, J. Reese, J. Diaz-Montano, C.M. Smith  
Journal of Plant Registrations, 4(1):67-69, 2010
- 09-004-J The major threshability genes soft glume (*sog*) and tenacious glume (*Tg*), of diploid and polyploid wheat, trace their origin to independent mutations at non-orthologous loci  
S. Sood, V. Kuraparthi, G. Bai, B.S. Gill  
Theoretical and Applied Genetics, 119:341-351, 2009
- 09-062-J A benefit of high temperature: Increased effectiveness of a rice bacterial blight disease resistance gene  
K.M. Webb, I. Ona, J. Bal, K.A. Garrett, T-W. Mew, C. Vera Cruz, J.E. Leach  
New Phytologist, 185:568-576, 2010
- 09-066-J Wheat-*Thinopyrum intermedium* recombinants resistant to *wheat streak mosaic virus* and *Triticum mosaics virus*  
B. Friebe, L.L. Qi, D.L. Wilson, Z.J. Chang, D.L. Seifers, T.J. Martin, A.K. Fritz, B.S. Gill  
Crop Science, 49:1221-1226, 2009
- 09-069-J Response of soil microbial and invertebrate communities to tracked vehicle disturbance in tallgrass prairie  
P.S. Althoff, T.C. Todd, S.J. Thien, M.A. Callahan, Jr., P.M. White  
Applied Soil Ecology, 43(1):122-130, 2009
- 09-115-J The grain mold pathogen, *Fusarium thapsinum*, reduces caryopsis formation in *Sorghum bicolor*  
C.R. Little, C.W. Magill  
Journal of Phytopathology, 157:518-519, 2009
- 09-118-B Challenges and approaches to statistical design and inference in high dimensional investigations  
G.L. Gadbury, K.A. Garrett, D.B. Allison  
In: Plant systems biology, D.A. Belostotsky (Ed.).  
Totowa, NJ: The Humana Press Inc., pp. 181-206, 2009
- 09-191-B *Fusarium* genetics and pathogenicity  
J.F. Leslie, J-R. Xu  
In: Cellular and molecular biology of filamentous fungi, K.A. Borkovich, D. Ebbole (Eds.).  
Washington, DC: ASM Press, pp. 607-621, 2010

- 09-206-J Disciplinary, institutional, funding, and demographic trends in plant pathology: What does the future hold for the profession?  
D.M. Gadoury, J. Andrews, K. Baumgartner, M. Bjerkness, T.J. Burr, M.M. Kennelly, A. Lichens-Park, J. MacDonald, S. Savary, H. Scherm, A. Talley, G-L. Wang  
Plant Disease, 93:1228-1237, 2009
- 09-218-J Variation in gene expression of *Andropogon gerardii* in response to altered environmental conditions associated with climate change  
S.E. Travers, Z. Tang, D. Caragea, K.A. Garrett, S.H. Hulbert, J.E. Leach, J. Bai, A. Saleh, A.K. Knapp, P.A. Fay, J. Nippert, P.S. Schnable, M.D. Smith  
Journal of Ecology, 98:374-383, 2010
- 09-236-J Relatedness of *Macrophomina phaseolina* isolates from tallgrass prairie, maize, soybean, and sorghum  
A.A. Saleh, H.U. Ahmed, T.C. Todd, S.E. Travers, K.A. Zeller, J.F. Leslie, K.A. Garrett  
Molecular Ecology, 19:79-91, 2010
- 09-293-J Recombinant *Rp1* genes confer necrotic or nonspecific resistance phenotypes  
S.M. Smith, M. Steinau, H.N. Trick, S.H. Hulbert  
Molecular Genetics and Genomics, 283:591-602, 2010
- 09-308-J Rapid in planta evaluation of root expressed transgenes in chimeric soybean plants  
J. Li, T.C. Todd, H.N. Trick  
Plant Cell Reports, 29:113-123, 2010
- 09-313-J Effect of nozzle type and water volume on dollar spot control in greens-height creeping bentgrass  
M.M. Kennelly, R.E. Wolf  
Applied Turfgrass Science, 2008  
doi:10.1094/ATS-2009-0921-01-RS
- 09-334-J A molecular-cytogenetic method for locating genes to pericentromeric regions facilitates a genome-wide comparison of synteny between the centromeric regions of wheat and rice  
L. Qi, B. Friebe, P. Zhang, B.S. Gill  
Genetics, 183:1235-1247, 2009
- 09-335-J Wheat-rye recombinants with resistance to Hessian fly (*H21*)  
J.C. Cainong, L. Zavatsky, M.S. Chen, J. Johnson, B. Friebe, B.S. Gill, A.J. Lukaszewski  
Crop Science, 50:920-925, 2010
- 09-352-J Deletion and overexpression of the *Aspergillus nidulans* GATA factor AreB reveals unexpected pleiotropy  
K.H. Wong, M.J. Hynes, R.B. Todd, M.A. Davis  
Microbiology, 155(12):3868-3880, 2009
- 09-392-J Moss control on creeping bentgrass greens with standard and alternative approaches  
M. Kennelly, D.M. Settle, T.C. Todd, J.D. Fry  
HortScience, 45:654-659, 2010
- 10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1007, August 2009
- 10-013-D Annual wheat newsletter  
W.J. Raupp  
Plant Pathology Department Report, volume 55, 2009, 298 pp.  
<http://wheat.pw.usda.gov/ggpages/awn/55/>
- 10-053-J The type III effectors of *Xanthomonas*  
F.F. White, N. Potnis, J.B. Jones, R. Koebnik  
Molecular Plant Pathology, 10:749-766, 2009
- 10-054-J Host and pathogen factors controlling the Rice-*Xanthomonas oryzae* interaction  
F.F. White, B. Yang  
Plant Physiology, 150:1677-1686, 2009
- 10-066-J K, Cl, and N fertilization affects grain sorghum production and stalk rot  
D.W. Sweeney, D.J. Jardine, J.L. Moyer, D.A. Whitney  
Crop Management, 2010  
doi:10.1094/CM-2010-0126-01-RS

- 10-071-B Application of aerobiology to IPM  
S. Isard, D. Mortensen, S. Fleischer,  
E.D. De Wolf  
In: Integrated pest management:  
Concepts, tactics, strategies, and case  
studies, B. Radcliffe, W.D. Hutchison,  
R.E. Cancelado (Eds.).  
New York: Cambridge University  
Press, pp. 550, 2009
- 10-072-B Plant pathogens as indicators of climate  
change  
K.A. Garrett, M. Nita, E.D. De Wolf, L.  
Gomez, A.H. Sparks  
In: Climate change: Observed impacts  
on plant earth, T.M. Letcher (Ed.).  
Amsterdam: Elsevier, pp. 492, 2009
- 10-077-J Genome comparisons reveal a dominant  
mechanism of chromosome number  
reduction in grasses and accelerated  
genome evolution in Triticeae  
M.C. Luo, K.R. Deal, E.D. Akhunov,  
A.R. Akhunova, O.D. Anderson, J.A.  
Anderson, N. Blake, M.T. Clegg, D.  
Coleman-Derr, E.J. Conley, C.C.  
Crossman, J. Dubcovsky, B.S. Gill,  
Y.Q. Gu, J. Hadam, H.Y. Heo, N. Huo,  
G. Lazo, Y. Ma, D.E. Matthews, P.E.  
McGuire, P.L. Morrell, C.O. Qualset, J.  
Renfro, D. Tabanao, L.E. Talbert, C.  
Tian, D.M. Toleno, M.L. Warburton,  
F.M. You, W. Zhang, J. Dvorak  
Proceedings of the National Academy  
of Sciences, 106:15780-15785, 2009
- 10-084-J A benefit of high temperature:  
Increased effectiveness of a rice  
bacterial blight disease resistance gene  
K.M. Webb, I. Ona, J. Bai, K.A.  
Garrett, T. Mew, C.M. Vera Cruz, J.E.  
Leach  
New Phytologist, 185:568-576, 2010
- 10-085-B Diagnostic networks for plant  
biosecurity  
J.P. Stack  
In: Knowledge and technology transfer  
for plant pathology, N. Hardwick, M.L.  
Gullino (Eds.).  
Dordrecht: Springer, pp. 124, 2010
- 10-086-B Bioterrorism: A threat to plant  
biosecurity?  
J.P. Stack, F. Suffert, M.L. Gullino  
In: The role of plant pathology in food  
safety and food security, R.N. Strange,  
M.L. Gullino (Eds.).  
Dordrecht: Springer, pp. 155, 2010
- 10-091-J *Uromyces ciceris-arietini*, the cause of  
chickpea rust: New hosts in the  
Trifolieae, Fabaceae  
D.L. Stuteville, W.L. Graves, L.J.  
Dixon, L.A. Castlebury, A.M. Minnis  
Plant Disease, 94:293-297, 2010
- 10-134-J Analysis of expressed sequence tags for  
*Frankliniella occidentalis*, the western  
flower thrips  
D. Rotenberg, A.E. Whitfield  
Insect Molecular Biology, 19(4):537-  
551, 2010
- 10-141-B *Magnaporthe oryzae* and rice blast  
disease  
C-H. Khang, B. Valent  
In: Cellular and molecular biology of  
filamentous fungi, K. Borkovich, D.  
Ebbole (Eds.).  
Washington DC: ASM Press, pp. 802,  
2010
- 10-151-S 2009 Kansas Performance Tests with  
Corn Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog.  
1019, November 2009
- 10-160-S 2009 Kansas Performance Tests with  
Grain Sorghum Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog.  
1023, December 2009
- 10-194-B Transgenic plants in breeding and crop  
production: Soybean  
J.M. Widholm, J.J. Finer, L.O. Vodkin,  
H.N. Trick, P. LaFayette, J. Li, W.  
Parrott  
In: Genetic modification of plants -  
Agriculture, horticulture, and forestry,  
F. Kempken, C. Jung (Eds.).  
Berlin: Springer Verlag and New York:  
Heidelberg, pp. 675, 2010



- 10-198-J *Caenorhabditis elegans* genomic response to soil bacteria predicts environment-specific genetic effects on life history traits  
J.D. Coolon, K.L. Jones, T.C. Todd, B.C. Carr, M.A. Herman  
PLoS Genetics, 5(6):e1000503.  
doi:10.1371/journal.pgen.1000503
- 10-249-J Feasibility of physical map construction from fingerprinted bacterial artificial chromosome libraries of polyploid plant species  
M.C. Luo, Y.Q. Ma, F.M. You, O.D. Anderson, D. Kopecky, H. Simkova, J. Safar, J. Dolezel, B.S. Gill, P.E. McGuire, J. Dvorak  
BMC Genomics, 11:122, 2010
- 10-254-B Advances in genetics, genomics and control of rice blast disease  
G-L. Wang, B. Valent (Eds.).  
New York: Springer Science and Business Media, pp. 464, 2009
- 10-257-S Agricultural Research 2010  
Multiple authors  
KS Agric. Exp. Stn. Report of Prog. 1033, April 2010
- 10-268-J Recent advances in rice blast effector research  
B. Valent, C.H. Khang  
Current Opinion in Plant Biology, 13(4):434-441, 2010
- 10-272-J Translocation of Magnaporthe oryzae effectors into rice cells and their subsequent cell-to-cell movement  
C.H. Khang, R. Berruyer, M.C. Giraldo, P. Kankanala, S-Y. Park, K. Czymmek, S. Kang, B. Valent  
The Plant Cell, 22:1388-1403, 2010
- Statistics**
- 06-094-J Long-term response patterns of tallgrass prairie to frequent summer burning  
E.G. Towne, K.E. Kemp  
Journal of Rangeland Ecology & Management, 61:509-520, 2008
- 06-200-J Weight loss via exercise with controlled dietary intake may affect phospholipid profile for cancer prevention in murine skin tissues  
P. Ouyang, Y. Jiang, H.M. Doan, L. Xie, D. Vasquez, R. Welti, Z. Su, N. Lu, B. Herndon, S-S. Yang, R. Jeannotte, W. Wang  
Cancer Prevention Research, 3(4):466-477, 2010
- 06-232-J Effects of melengestrol acetate on L-selectin and  $\beta$ 2-integrin expression of polymorphonuclear leukocytes from heifers challenged with lipopolysaccharide  
M.E. Corrigan, J.S. Drouillard, C.R. Wyatt, E.R. Loe, B.E. Depenbusch, A.S. Webb, M.J. Quinn, H-F. Wang, J.J. Higgins  
International Journal of Applied Research in Veterinary Medicine, 7:169-180, 2009
- 08-082-J Effects of dry-rolled or steam-flaked corn finishing diets with or without 25% distiller's dried grains on ruminal fermentation and apparent total tract digestion  
M.L. May, M.J. Quinn, C.D. Reinhardt, L. Murray, M.L. Gibson, K.K. Karges, J.S. Drouillard  
Journal of Animal Science, 87:3630-3638, 2009
- 08-135-J Effects of pH, lactate cation, and lactate ion concentration on *in vitro* metmyoglobin-reducing activity  
S. Hutchinson, M. Seyfert, M.C. Hunt, J.J. Higgins  
Journal of Muscle Foods, 21(1):79-86, 2010
- 09-013-J Optimizing use of distillers grains in finishing diets containing steam-flaked corn  
B.E. Depenbusch, E.R. Loe, J.J. Sindt, J.J. Higgins, J.S. Drouillard, N.A. Cole  
Journal of Animal Science, 87(8):2644-2652, 2009

- 09-070-J Effects of increasing levels of dried corn distillers grains with solubles on growth performance, carcass characteristics, and meat quality of yearling heifers  
B.E. Depenbusch, C.M. Coleman, J.J. Higgins, J.S. Drouillard  
Journal of Animal Science, 87(8):2653-2663, 2009
- 09-079-J Size distribution and rate of dust generated during grain elevator handling  
J.M. Boac, R.G. Maghirang, M.E. Casada, J.D. Wilson, Y.S. Jung  
Applied Engineering in Agriculture, 25(4):533-541, 2009
- 09-106-J Effects of dry aging of bone-in and boneless strip loins using two aging processes for two aging times  
S.L. DeGeer, M.C. Hunt, C.L. Bratcher, B.A. Crozier-Dodson, D.E. Johnson, J.F. Stika  
Meat Science, 83:768-774, 2009
- 09-118-B Challenges and approaches to statistical design and inference in high dimensional investigations  
G.L. Gadbury, K.A. Garrett, D.B. Allison  
In: Plant systems biology, D.A. Belostotsky (Ed.).  
Totowa, NJ: The Humana Press Inc., pp. 181-206, 2009
- 09-144-J Effects of zilpaterol hydrochloride feeding duration on crossbred beef semimembranosus steak color in aerobic or modified atmosphere packaging  
J.A. Gunderson, M.C. Hunt, T.A. Houser, E.A.E. Boyle, M.E. Dikeman, D.E. Johnson, D.L. VanOverbeke, G.G. Hilton, C. Brooks, J. Killefer, D.M. Allen, M.N. Streeter, W.T. Nichols, J.P. Hutcheson, D.A. Yates  
Journal of Animal Science, 87(11):3739-3750, 2009
- 09-151-J Feeding zilpaterol hydrochloride to calf-fed Holsteins has minimal effects on semimembranosus steak color  
J.A. Gunderson, M.C. Hunt, T.A. Houser, E.A.E. Boyle, M.E. Dikeman, D.E. Johnson, D.L. VanOverbeke, G.G. Hilton, C. Brooks, J. Killefer, D.M. Allen, M.N. Streeter, W.T. Nichols, J.P. Hutcheson, D.A. Yates  
Journal of Animal Science, 87(11):3751-3763, 2009
- 09-268-J Pregnancy outcome after insemination of frozen-thawed bovine semen packaged in two straw sizes: A meta-analysis  
J.S. Stevenson, J.J. Higgins, Y. Jung  
Journal of Dairy Science, 92:4432-4438, 2009
- 09-378-J Variation explained in mixed model association mapping  
G. Sun, C. Zhu, S. Yang, W. Song, M.H. Kramer, H.P. Piepho, J. Yu  
Heredity, 105:333-340, 2010
- 10-014-S Swine Day 2009  
Multiple authors  
Coordinating author: R. Goodband  
KS Agric. Exp. Stn. Report of Prog. 1020, November 2009
- 10-305-A Estimating sward forage mass and crude protein  
J.L. Moyer, R.R. Price, J.J. Higgins, L.W. Lomas  
Proceedings of the American Forage and Grassland Council Conference  
Springfield, MO, June 2010, pp. 6

### Agricultural Research Center–Hays

- 09-066-J Wheat – *thinopyrum intermedium* recombinants resistant to *wheat streak mosaic virus* and *triticum mosaic virus*  
B. Friebe, L.L. Qi, D.L. Wilson, Z.J. Chang, D.L. Seifers, T.J. Martin, A.K. Fritz, B.S. Gill  
Crop Science, 49:1221-1226, 2009

- 09-080-J Effect of postemergence mesotrione application timing on grain sorghum  
M. Joy, M. Abit, K. Al-Khatib, R.S. Currie, P.W. Stahlman, P.W. Geier, B.W. Gordon, B.L.S. Olson, M.M. Claassen, D.L. Regehr  
Weed Technology, 24:85-90, 2010
- 09-124-J Identification of variants of the High Plains virus infecting wheat in Kansas  
D.L. Seifers, T.J. Martin, T.L. Harvey, S. Haber, O. Krokhin, V. Spicer, S. Ying, K.G. Standing  
Plant Disease, 93(12):1265-1274, 2009
- 09-148-J The nature of resistance to *Dectes texanus* (Col. Cerambycidae) in wild sunflower, *Helianthus annuus*  
J.P. Michaud, A.K. Grant  
Journal of Applied Entomology, 133:518-523, 2009
- 09-152-J No-till induced increase in organic carbon reduces maximum bulk density of soils  
H. Blanco-Canqui, L.R. Stone, A.J. Schlegel, D.J. Lyon, M.F. Vigil, M.M. Mikha, P.W. Stahlman, C.W. Rice  
Soil Science Society of America Journal, 73:1871-1879, 2009
- 09-170-J Regional study of no-till impacts on near-surface aggregate properties that influence soil erodibility  
H. Blanco-Canqui, M.M. Mikha, J.G. Benjamin, L.R. Stone, A.J. Schlegel, D.J. Lyon, M.F. Vigil, P.W. Stahlman  
Soil Science Society of America Journal, 73:1361-1368, 2009
- 09-189-J Using long-term relative yield and quality to select adapted small grain forages  
K.R. Harmony, C.A. Thompson  
Forage and Grazinglands, 2010  
doi:10.1094/FG-2010-0125-01-RS
- 09-222-J Wheat and sorghum residue removal for expanded uses increases sediment and nutrient loss in runoff  
H. Blanco-Canqui, R.J. Stephenson, N.O. Nelson, D.R. Presley  
Journal of Environmental Quality, 38(6):2365-2372, 2009
- 09-367-J Soil response to long-term cropping systems on an Argiustoll in the Central Great Plains  
H. Blanco-Canqui, L.R. Stone, P.W. Stahlman  
Soil Science Society of America Journal, 74:602-611, 2009
- 10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1007, August 2009
- 10-028-J Energy crops and their implications on soil and environment  
H. Blanco-Canqui  
Agronomy Journal, 102(2):403-419, 2010
- 10-133-S 2010 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland  
Multiple authors  
Coordinating author: D. Peterson  
KS Agric. Exp. Stn. Report of Prog. 1027, January 2010
- 10-151-S 2009 Kansas Performance Tests with Corn Hybrids  
Multiple authors  
Coordinating author: W. Aschwege  
KS Agric. Exp. Stn. Report of Prog. 1019, November 2009
- 10-160-S 2009 Kansas Performance Tests with Grain Sorghum Hybrids  
Multiple authors  
Coordinating author: W. Aschwege  
KS Agric. Exp. Stn. Report of Prog. 1023, December 2009
- 10-212-S Field Research 2010  
Multiple authors  
Coordinating authors: H. Blanco, P.W. Stahlman  
KS Agric. Exp. Stn. Report of Prog. 1030, April 2010
- 10-220-S 2009 Kansas Performance Tests with Sunflower Hybrids  
Multiple authors  
Coordinating author: W. Aschwege  
KS Agric. Exp. Stn. Report of Prog. 1024, January 2010

Publications without contribution numbers

Characterization of specific passive immunity stimulated by vaccination of beef cows grazing native range with *E. coli* O157:H7-SRP

B.W. Wileman, D.U. Thompson, KC Olson, L.A. Pacheco, J.R. Jaeger, D.T. Burkhardt, J. Sandstrom, D.A. Emery  
*Bovine Practitioner*, 44:12-16, 2010

Contingent productivity responses to more extreme rainfall regimes across a grassland biome

J.L. Heisler-White, J.M. Blair, E.F. Kelly, K. Harmony, A.K. Knapp  
*Global Change Biology*, 15(12):2894-2904, 2009  
doi:10.1111/j.1365-2486.2009.01961.x

High Plains sunflower production handbook

Multiple authors

Coordinating author: J.P. Michaud  
*KS Agric. Exp. Stn. MF2384*, 2009

Top-dress applications of UAN fertilizer with herbicides on wheat

Multiple authors

Coordinating author: P.W. Stahlman  
*KS Agric. Exp. Stn. MF2903*, 2009

**Northwest Research–Extension Center**

10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties

Multiple authors

Coordinating author: J. Lingenfelter  
*KS Agric. Exp. Stn. Report of Prog. 1007*, August 2009

10-107-J Effect of dripline flushing velocity on subsurface drip irrigation systems

J. Puig-Bargués, F.R. Lamm, T.P.

Tooien, G.A. Clark

*Transactions of the ASABE*, 53(1):147-155, 2010

10-108-J Subsurface drip irrigation emitter spacing effects on soil water redistribution, corn yield and water productivity

G.P. Arbat, F.R. Lamm, A.A. Abou Kheira

*Applied Engineering in Agriculture*, 26(3):391-399, 2010

10-109-A Managing the challenges of subsurface drip irrigation

F.R. Lamm

*Proceedings of the 2009 Irrigation Association Technical Conference*  
San Antonio, TX, 2009

10-110-A Summary of twenty years of Kansas SDI research

F.R. Lamm, D.H. Rogers, M. Alam, D. O'Brien, T. Trooien

*Proceedings of the 2009 Irrigation Association Technical Conference*  
San Antonio, TX, 2009

10-111-A Impact of management on the life expectancy of drip systems

J. Encisco-Medina, W.L. Multer, F.R. Lamm

*Proceedings of the 2009 Irrigation Association Technical Conference*  
San Antonio, TX, 2009

10-112-A Microirrigation for sustainable water use: Research and outreach through a multi-state collaboration

D.O. Porter, F.R. Lamm, L.J. Schwankl, K.A. Shackel

*Proceedings of the 2009 Irrigation Association Technical Conference*  
San Antonio, TX, 2009

10-113-A Effect of the changing U.S. economy on the relative profitability of center pivot sprinklers and SDI systems

D.M. O'Brien, F.R. Lamm, D.H. Rogers, T.J. Dumler

*Proceedings of the 2009 Irrigation Association Technical Conference*  
San Antonio, TX, 2009

10-114-A Using SDI to effectively irrigate with biological effluent

T.P. Trooien, D.J. Hills, F.R. Lamm

*Proceedings of the 2009 Irrigation Association Technical Conference*  
San Antonio, TX, 2009

10-151-S 2009 Kansas Performance Tests with Corn Hybrids

Multiple authors

Coordinating author: J. Lingenfelter  
*KS Agric. Exp. Stn. Report of Prog. 1019*, November 2009

- 10-160-S 2009 Kansas Performance Tests with Grain Sorghum Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1023, December 2009
- 10-167-S 2009 Kansas Performance Tests with Soybean Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1022, December 2009
- 10-183-J Effect of flushing frequency on emitter clogging in microirrigation with effluents  
J. Puig-Bargués, G. Arbat, M. Elbana, M. Duran-Ros, J. Barragan, F. Ramirez de Cartagena, F.R. Lamm  
Agricultural Water Management, 97(6):883-891, 2010
- 10-212-S Field Research 2010  
Multiple authors  
Coordinating author: J. Shroyer  
KS Agric. Exp. Stn. Report of Prog. 1030, April 2010
- 10-220-S 2009 Kansas Performance Tests with Sunflower Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1024, January 2010
- 10-221-S 2009 Kansas Performance Tests with Alfalfa Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1025, January 2010
- 10-224-J Sunflower, soybean, and grain sorghum crop production as affected by dripline depth  
F.R. Lamm, A.A. Abou Kheira, T.P. Trooien  
Applied Engineering in Agriculture, 26(5):873-882, 2010
- 10-228-A Twenty-one years of SDI research in Kansas  
F.R. Lamm, D.H. Rogers, M. Alam, D.M. O'Brien, T.P. Trooien  
Proceedings of the 22nd annual Central Plains Irrigation Conference  
Kearney, NE, February 2010
- 10-229-A How economic factors affect the profitability of center pivot sprinkler and SDI systems  
D.M. O'Brien, F.R. Lamm, D.H. Rogers, T.J. Dumler  
Proceedings of the 22nd annual Central Plains Irrigation Conference  
Kearney, NE, February 2010, pp. 97-109
- 10-293-S Field Day 2010, Southwest Research Extension Center  
Multiple authors  
KS Agric. Exp. Stn. Report of Prog. 1034, June 2010
- Southeast Agricultural Research Center**
- 10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1007, August 2009
- 10-066-J K, Cl, and N fertilization affects grain sorghum production and stalk rot  
D.W. Sweeney, D.J. Jardine, J.L. Moyer, D.A. Whitney  
Crop Management, 2010  
doi:10.1094/CM-2010-0126-01-RS
- 10-098-J Comparison of returns from legumes in endophyte-infected tall fescue for hay  
J.L. Moyer, K.C. Dhuyvetter, D. Shoup  
Forage and Grazinglands, 2009  
doi:10.1094/FG-2009-1014-01-RS
- 10-151-S 2009 Kansas Performance Tests with Corn Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1019, November 2009

- 10-160-S 2009 Kansas Performance Tests with Grain Sorghum Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1023, December 2009
- 10-167-S 2009 Kansas Performance Tests with Soybean Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1022, December 2009
- 10-213-S Kansas Fertilizer Research 2009  
Multiple authors  
Coordinating author: D. Ruiz-Diaz  
KS Agric. Exp. Stn. Report of Prog. 1031, April 2010
- 10-220-S 2009 Kansas Performance Tests with Sunflower Hybrids  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1024, January 2010
- 10-221-S 2009 Kansas Performance Tests with Alfalfa Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1025, January 2010
- 10-257-S Agricultural Research 2010  
Multiple authors  
KS Agric. Exp. Stn. Report of Prog. 1033, April 2010
- 10-305-A Estimating sward forage mass and crude protein  
J.L. Moyer, R.R. Price, J.J. Higgins, L.W. Lomas  
Proceedings of the American Forage and Grassland Council Conference  
Springfield, MO, June 2010, pp. 6
- Southwest Research–Extension Center**
- 09-024-J Multiple season reductions in herbicide, downy brome (*Bromus tectorum*), and irrigation in corn  
R.S. Currie, N.L. Klocke, H.N. Davis, L.L. Buschman  
Weed Technology, 23(3):371-378, 2009
- 09-080-J Effect of postemergence mesotrione application timing on grain sorghum  
M. Joy, M. Abit, K. Al-Khatib, R.S. Currie, P.W. Stahlman, P.W. Geier, B.W. Gordon, B.L.S. Olson, M.M. Claassen, D.L. Regehr  
Weed Technology, 24:85-90, 2010
- 09-152-J No-till induced increase in organic carbon reduces maximum bulk density of soils  
H. Blanco-Canqui, L.R. Stone, A.J. Schlegel, D.J. Lyon, M.F. Vigil, M.M. Mikha, P.W. Stahlman, C.W. Rice  
Soil Science Society of America Journal, 73:1871-1879, 2009
- 09-170-J Regional study of no-till impacts on near-surface aggregate properties that influence soil erodibility  
H. Blanco-Canqui, M.M. Mikha, J.G. Benjamin, L.R. Stone, A.J. Schlegel, D.J. Lyon, M.F. Vigil, P.W. Stahlman  
Soil Science Society of America Journal, 73:1361-1368, 2009
- 09-260-J Tillage and crop rotation phase effects on soil physical properties in the west-central Great Plains  
L.R. Stone, A.J. Schlegel  
Agronomy Journal, 102:483-491, 2010
- 09-379-J Forage yield and quality of hard red and hard white winter wheat across cutting dates  
J.D. Holman, C.R. Thompson, R.L. Hale, A.J. Schlegel  
Agronomy Journal, 102(2):759-773, 2010
- 10-008-S 2009 Kansas Performance Tests with Winter Wheat Varieties  
Multiple authors  
Coordinating author: J. Lingenfelter  
KS Agric. Exp. Stn. Report of Prog. 1007, August 2009
- 10-040-J Planning for deficit irrigation  
N.L. Klocke, R.S. Currie, L.R. Stone, D.A. Bolton  
Journal of Applied Engineering in Agriculture, 26(3):405-412, 2010

10-041-J	Technical note: Scheduling for deficit irrigation - Crop yield predictor N.L. Klocke, L.R. Stone, S. Briggemann, D.A. Bolton Journal of Applied Engineering in Agriculture, 26(3):413-418, 2010	10-221-S	2009 Kansas Performance Tests with Alfalfa Varieties Multiple authors Coordinating author: J. Lingenfelter KS Agric. Exp. Stn. Report of Prog. 1025, January 2010
10-151-S	2009 Kansas Performance Tests with Corn Hybrids Multiple authors Coordinating author: J. Lingenfelter KS Agric. Exp. Stn. Report of Prog. 1019, November 2009	10-293-S	Field Day 2010, Southwest Research Extension Center Multiple authors KS Agric. Exp. Stn. Report of Prog. 1034, June 2010
10-160-S	2009 Kansas Performance Tests with Grain Sorghum Hybrids Multiple authors Coordinating author: J. Lingenfelter KS Agric. Exp. Stn. Report of Prog. 1023, December 2009	Publications without contribution numbers	
10-167-S	2009 Kansas Performance Tests with Soybean Varieties Multiple authors Coordinating author: J. Lingenfelter KS Agric. Exp. Stn. Report of Prog. 1022, December 2009	Corn and grain sorghum production with limited irrigation N.L. Klocke, R.S. Currie Proceedings of the Sustainability Management Conference Denver, CO, 2009	
10-212-S	Field Research 2010 Multiple authors Coordinating author: J. Shroyer KS Agric. Exp. Stn. Report of Prog. 1030, April 2010	Crop selections and water allocations for limited irrigation N.L. Klocke, L.R. Stone, T.J. Dumler, S. Briggeman Proceedings of the Sustainability Management Conference Denver, CO, 2009	
10-213-S	Kansas Fertilizer Research 2009 Multiple authors Coordinating author: D. Ruiz-Diaz KS Agric. Exp. Stn. Report of Prog. 1031, April 2010	Crop yield predictor for deficit irrigation scheduling N.L. Klocke, L.R. Stone, S. Briggeman Proceedings of the Innovations in Irrigation Conference San Antonio, TX, 2009	
10-220-S	2009 Kansas Performance Tests with Sunflower Hybrids Multiple authors Coordinating author: J. Lingenfelter KS Agric. Exp. Stn. Report of Prog. 1024, January 2010	Value of crop residues for evaporation suppression and deficit irrigation N.L. Klocke Proceedings of the 21st High Plains No-till Conference Greeley, CO, 2009, p. 27	





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