Director's Report of Research in Kansas 2014

July 1, 2013–June 30, 2014

K-STATE Research and Extension

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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, 2014. This report contains the title, author, and publication information for manuscripts published by station scientists. The report was published only in electronic format.

John D. Floros, Ph.D.
Director, K-State Research and Extension
and Dean, College of Agriculture

A Message from the Director

We are pleased to provide this 2014 Director's Report of Research in Kansas. The report is intended to inform you about our research programs underway 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 2014 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 the grand challenges facing Kansas citizens.

John D. Floros, Ph.D.
Director, K-State Research and Extension
and Dean, College of Agriculture

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Search Tips

To find publications by a particular author, type the surname in the "find" search box in the Acrobat toolbar in this document. Use "Find Next" until all relevant publications are found.

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Research Components of the Kansas Agricultural Experiment Station*

(see map, next page)

Academic Departments

College of Agriculture

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

College of Arts and Sciences

Biochemistry and Molecular Biophysics
Biology
Sociology, Anthropology, and Social Work
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

Research Centers

Agricultural Research Center–Hays
John C. Pair Horticultural Center (Haysville)
K-State Research and Extension Center for Horticultural Crops (Olathe)
Northwest Research-Extension Center (Colby)
Southeast Agricultural Research Center (Parsons, Columbus, Mound Valley)
Southwest Research-Extension Center (Garden City)
Southwest Research-Extension Center–Tribune

Experiment Fields

East Central – Ottawa
Kansas River Valley – Rossville, Topeka
North Central and Irrigation – Belleville, Scandia
Pecan Field – Chetopa
South Central – Hutchinson

Associated Programs

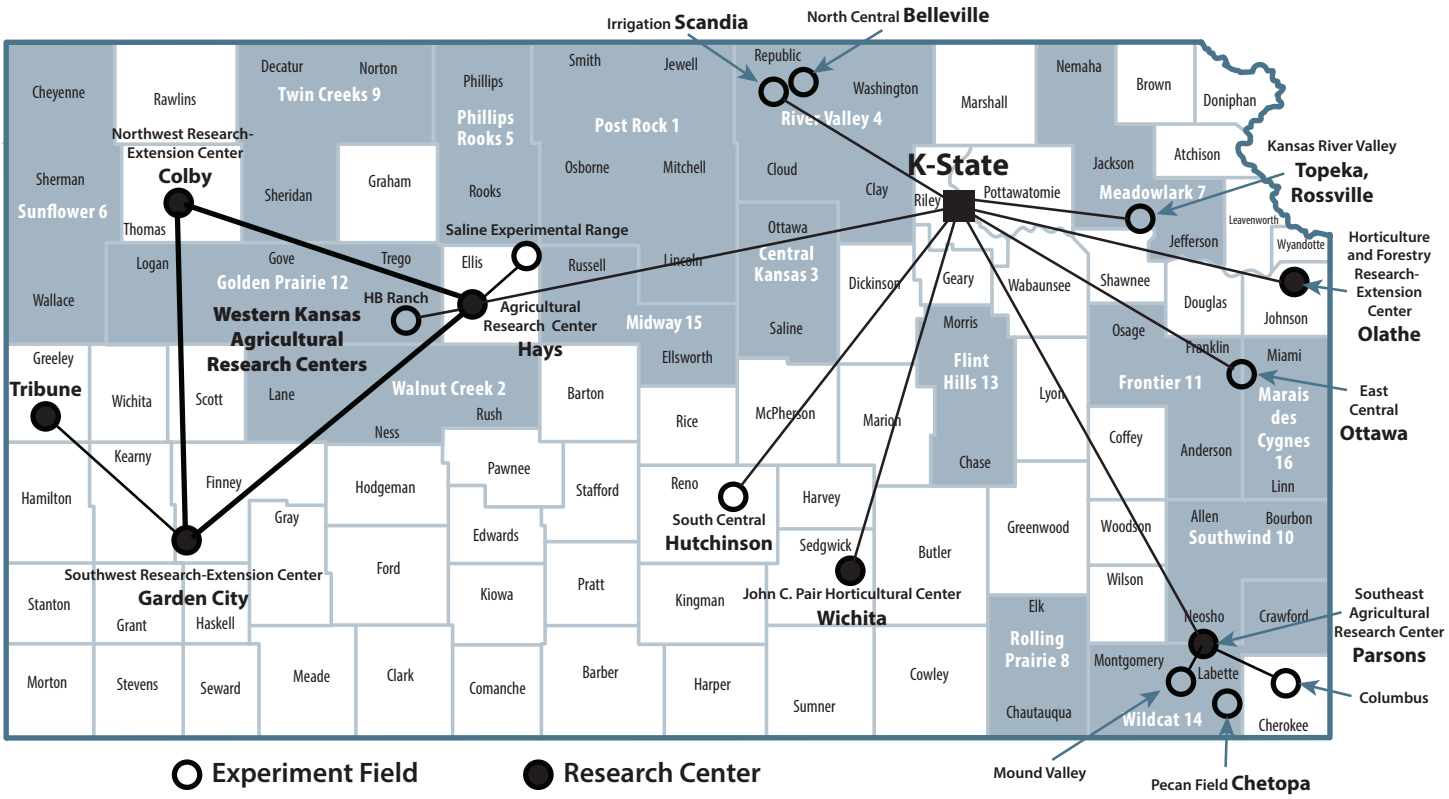
Bioprocessing and Industrial Value-Added Program
Center for Biobased Products by Design
Center for Sustainable Energy
Food Science Institute
Great Plains Diagnostic Network
Great Plains Sorghum Improvement and Utilization Center
IGP Institute
International Meat and Livestock Program
K-State Libraries
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
National Science Foundation Industry/University Cooperative Research for Wheat Genetics
Plant Biotechnology Center
Veterinary Diagnostic Lab
Weather Data Library
Wheat Genetics Resource Center

USAID Feed the Future Innovation Labs

Applied Wheat Genomics
Reduction of Post-Harvest Loss
Sorghum and Millet
Sustainable Intensification

* List includes units having faculty with KAES appointments in fiscal year 2014. 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, and click on "About Us" in the sidebar.

Kansas State University Agricultural Research Locations



Station Publications

Reports of Progress

SRP 1089	K-State Turfgrass Research 2013
SRP 1090	2013 Kansas Performance Tests with Winter Wheat Varieties
SRP 1091	2013 Kansas Performance Tests with Corn Hybrids
SRP 1092	Swine Day 2013
SRP 1093	Dairy Research 2013
SRP 1094	2013 Kansas Performance Tests with Soybean Varieties
SRP 1095	2013 Kansas Performance Tests with Grain Sorghum Hybrids
SRP 1096	2013 Kansas Performance Tests with Sunflower Hybrids
SRP 1097	2013 Kansas Performance Tests with Alfalfa Varieties
SRP 1098	2013 National Winter Canola Variety Trial
SRP 1099	2014 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
SRP 1100	2013 Kansas Performance Tests with Cotton Varieties
SRP 1101	Cattlemen's Day 2014
SRP 1102	Field Research 2014
SRP 1103	Kansas Fertilizer Research 2014
SRP 1104	Roundup 2014, Agricultural Research Center–Hays
SRP 1105	2014 Agricultural Research, Southeast Agricultural Research Center
SRP 1106	Field Day 2014, Southwest Research-Extension Center

Special Publications

DRR13	Director's Report of Research in Kansas 2013

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 at:
www.ksre.ksu.edu/bookstore

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, simply paste the doi into your browser or visit *http://dx.doi.org/*.

Publications of Station Scientists

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

Agricultural Economics

14-022-J Regression estimates of different land type prices and time adjustments
B. Wilson, B. Schurle, A. Featherstone, M. Taylor, G. Ibendahl
Journal of the American Society of Farm Managers and Rural Appraisers
192-203, 2014

14-060-S The impact of climate, disease, and wheat breeding on wheat variety yields in Kansas, 1985-2011
A. Barkley, J. Tack, L.L. Nalley, J. Bergtold, R. Bowden, A. Fritz
KS Agric. Exp. Stn. Special Bulletin 665, August 2013

14-347-T Baseline Feed the Future Indicators for Northern Ghana 2012
Y.A. Zereyesus, K.L. Ross, V. Amanor-Boadu, T.J. Dalton
USAID/GHANA/METSS Report
Kansas State University, Manhattan, KS, March 2014
ISBN 978-0-9898866-0-4 (printed)
ISBN 978-0-9898866-1-1 (pdf)

Agricultural Research Center–Hays

13-216-J Genotypic variation in sorghum [*Sorghum bicolor* (L.) Moench] exotic germplasm collections for drought and disease tolerance
M.H. Kapanigowda, R. Perumal, M. Djanaguiraman, R.M. Aiken, T. Tesso, P.V. Vara Prasad, C.R. Little
SpringerPlus
650(2):1-13, 2013
doi:10.1186/2193-1801-2-650

13-222-J Carcass and meat quality characteristics of Brahman cross bulls and steers finished on tropical pastures in Costa Rica
J. Rodriguez, J. Unruh, M. Villarreal, O. Murillo, S. Rojas, J. Camacho, J. Jaeger, C. Reinhardt
Meat Science
96(3):1340-1344, 2014
doi:10.1016/j.meatsci.2013.10.024

14-014-J Registration of 'Clara CL' Wheat
T.J. Martin, G. Zhang, A.K. Fritz, R. Miller, M-S. Chen
Journal of Plant Registrations
8:38-42, 2014
doi:10.3198/jpr2013.07.0040crc

14-019-S 2013 Kansas Performance Tests with Winter Wheat Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1090, July 2013

14-038-S 2013 Kansas Performance Tests with Corn Hybrids
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1091, November 2013

14-039-S 2013 Kansas Performance Tests with Soybean Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1094, December 2013

14-040-S 2013 Kansas Performance Tests with Grain Sorghum Hybrids
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1095, December 2013

14-041-S 2013 Kansas Performance Tests with Sunflower Hybrids
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1096, February 2014

14-042-S 2013 Kansas Performance Tests with Alfalfa Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1097, February 2014

14-043-S 2013 Kansas Performance Tests with Cotton Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1100, June 2014

14-239-A Long-term tillage and nitrogen fertilizer application effects on crop yields and precipitation use efficiency in a wheat-sorghum cropping system
A.K. Obour, P.W. Stahlman
Great Soil Fertility Proceedings
Denver, CO, 2014, Vol. 15 pp. 6-11

14-266-J Non-target effects of sunflower seed treatments on *Orius insidiosus* (Hemiptera: Anthocoridae)
P.C. Gontijo, V.F. Moscardini, J.P. Michaud, G.A. Carvalho
Pest Management Science
2014
doi:10.1002/ps.3798

14-294-J Non-target effects of chlorantraniliprole and thiamethoxam on *Chrysoperla carnea* when employed as sunflower seed treatments
P.C. Gontijo, V.F. Moscardini, J.P. Michaud, G.A. Carvalho
Journal of Pest Science
2014
doi:10.1007/210340-014-0611-5

14-333-S Roundup 2014
Multiple authors
Coordinating author: K. Harmoney
KS Agric. Exp. Stn. Report of Prog. 1104, April 2014

14-376-J Inheritance of Wheat Streak Mosaic Virus Resistance in KS03HW12
G. Zhang, D.L. Seifers, T.J. Martin
Austin Journal of Plant Biology
1(1):1-4, 2014

14-393-S Field Day 2014 – SWREC
Multiple authors
SRP1106
KS Agric. Exp. Stn. Report of Prog. 1106, July 2014

14-399-J Grain sorghum response and Palmer amaranth control with postemergence application of fluthiacet-methyl
S.S. Reddy, P.W. Stahlman, P.W. Geier
International Journal of Pest Management
2014
doi:10.1080/09670874.2014.934407

14-416-J Biological properties of isolates of Triticum mosaic virus from the Great Plains states of the USA
D.L. Seifers, S.N. Wegulo, G.L. Hein, E. Byamukama, E. De Wolf, M.A.C. Langham
Canadian Journal of Plant Pathology
36(3): 389-395, 2014
doi:10.1080/07060661.2014.924028

Agronomy

13-129-J Harmony Park: A Decision Case on Gardening on a Brownfield Site
A.M.R. Harms, D.R. Presley, G. Hettiarachchi, C. Attanayake, S.J. Thien
Natural Sciences Education
43:33-41, 2014
doi:10.4195/nse2013.02.0003

13-150-J Nitrous oxide fluxes from a commercial beef cattle feedlot in Kansas
O.A. Aguilar, R. Maghirang, C.W. Rice, S.L. Trabue, L.E. Erickson
Air, Soil, and Water Research
7:35-45, 2014
doi:10.4137/ASWR.S12841

13-280-J Stomatal responses to changes in vapor pressure deficit reflect tissue-specific differences in hydraulic conductance
T.W. Ocheltree, J.B. Nippert, and P.V.V. Prasad
Plant Cell and Environment
37(1):132-139, 2014
doi:10.1111/pce.12137

13-359-J Cedar afforestation of prairie alters soil properties on a decadal time scale
M.R. Busch, D. Ricks Presley
Soil Horizons
55(5), 2014
doi:10.2136/sh13-05-0015

13-364-J Field evaluations on soil plant transfer of lead from an urban garden soil
C.P. Attanayake, G.M. Hettiarachchi, A. Harms, D. Presley, S. Martin, G.M. Pierzynski
Journal of Environmental Quality
43(2):475-487, 2014
doi:10.2134/jeq2013.07.0273

13-396-J Grain sorghum nutrient uptake and yield following turkey litter and fertilizer applications on a claypan soil
D.W. Sweeney, G.M. Pierzynski, P.L. Barnesc
Crop Management
12(1), 2014
doi:10.1094/CM-2013-0085-RS

13-403-J Fusarium-damaged kernels and deoxynivalenol in fusarium-infected U.S. winter wheat
F. Jin, G. Bai, D. Zhang, Y. Dong, L. Ma, W. Bockus, F. Dowell
Phytopathology
104(5):472-478, 2014
doi:10.1094/PHYTO-07-13-0187-R

13-407-J Remediation of heavy metal(loid)s contaminated soils - to mobilize or to immobilize?
N.Bolan, A. Kunhikrishnan, J. Kumpiene, J. Park, T. Makino, M.B. Kirkham, K. Scheckel
Journal of Hazardous Materilas
266:141-166, 2014
doi:10.1016/j.jhazmat.2013.12.d18

14-002-B Corn and grain sorghum comparison: All things considered
Y. Assefa, K. Roozeboom, C. Thompson, A. Schlegel, L. Stone, J.E. Lingenfelser
Academic Press/Elsevier, Amsterdam, 2014, 128 pp.
ISBN: 978-0-12-800112-7

14-014-J Registration of 'Clara CL' Wheat
T.J. Martin, G. Zhang, A.K. Fritz, R. Miller, M-S. Chen
Journal of Plant Registrations
8:38-42, 2014
doi:10.3198/jpr2013.07.0040crc

14-019-S 2013 Kansas Performance Tests with Winter Wheat Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1090, July 2013

14-030-J Variability for root traits in spring wheat germplasm
S. Narayanan, Am Mohan, K.S. Gill, P.V. Vara Prasad
PLOS ONE
June 2014
doi:10.1371/journal.pone.0100317

14-038-S 2013 Kansas Performance Tests with Corn Hybrids
Multiple authors
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KS Agric. Exp. Stn. Report of Prog. 1091, November 2013

14-039-S 2013 Kansas Performance Tests with Soybean Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1094, December 2013

14-040-S 2013 Kansas Performance Tests with Grain Sorghum Hybrids
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Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1095, December 2013

14-041-S 2013 Kansas Performance Tests with Sunflower Hybrids
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KS Agric. Exp. Stn. Report of Prog. 1096, February 2014

14-042-S 2013 Kansas Performance Tests with Alfalfa Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1097, February 2014

14-043-S 2013 Kansas Performance Tests with Cotton Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1100, June 2014

14-047-A Methodologies for estimating future climate change scenarios of surface solar radiation
A. Anandhi, V.V. Srinivas, D. Nagesh Kumar, R.S. Nanjundiah, P.H. Gowda
American Geophysical Union, Fall Meeting 2013
San Francisco, CA, 2013
http://adsabs.harvard.edu/abs/2013AGUFMGC23B0917S

14-051-J High-throughput micro-plate HCl-vanillin assay for screening tannin content in sorghum grain
T.J. Herald, P. Gadgil, R. Perumal, S.R. Bean, J.D. Wilson
Journal of the Science of Food and Agriculture
94(10):2133-36, 2014
doi:10.1002/jsfa.6538

14-056-J Genome-wide association analysis identified SNPs closely linked to a gene resistant to soil-borne wheat mosaic virus
S. Liu, X. Yang, D. Zhang, G. Bai, S. Chao, W. Bockus
Theoretical and Applied Genetics
127(5):1039-47, 2014
doi:10.1007/s00122-014-2277-z

14-076-J Association analysis of stem rust resistance in U.S. winter wheat
D. Zhang, G. Bai, R.L. Bowden, J. Yu, B. Carver
PLOS ONE
2014
doi:10.1371/journal.pone.0103747

14-086-J Investigation of phenoxy resistance in wild radish (*Raphanus raphanistrum*)
J. Mithila, N. DiMeo, L.Veldhis, M. Walsh, J.C. Hall
Journal of Agriculture and Food Chemistry
61(51):12516-12521, 2013
doi:10.1021/jf404095h

14-087-J Introgression of phenoxy herbicide resistance from *Raphanus raphanistrum* into *Raphanus sativus*
J. Mithila, M. Walsh, J.C. Hall
Plant Breeding Journal
133(4):489-492, 2014
doi:10.1111/pbr.12168

14-108-J Understanding genetics of herbicide resistance in weeds: implications for weed management
J. Mithila, A.S. Godar
Advances in Crop Science and Technology
1(4):115, 2013
doi:10.4172/2329-8863.1000115

14-118-J Temporal dynamics of oxygen isotope compositions of soil and canopy CO_2 fluxes in a temperate deciduous forest
E. Santos, C. Wagner-Riddle, X. Lee, J. Warland, S. Brown, R. Staebler, P. Bartlett, K. Kim
Journal of Geophysical Research
119:996-1013, 2014
doi:10.1002/2013JG002525

14-122-J Winter canola yield and survival as a function of environment, genetics, and management
Y. Assefa, K. Roozeboom, M. Stamm
Crop Science
2014
doi:10.2135/cropsci2013.10.0678

14-138-J Evaluation of wheat planted on 15-inch row spacing in eastern Kansas
D.E. Shoup, E.A. Adee
Crop Management
2014
doi:10.2134/CM-2013-0015a-RS

14-149-J Assessment of phosphorus retention in irrigation laterals
J.A Ippolito, N.O. Nelson
Journal of Soil and Water Conservation
68:450-459, 2013

14-150-J Development and application of algorithms for simulating terraces within SWAT
H. Shao, C. Baffaut, J.E. Gao, N.O. Nelson, K.A. Janssen, G.M. Pierzynski, P.L. Barnes
Transactions of the ASABE
56:1715-1730, 2013

14-178-S 2014 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
Multiple authors
Coordinating author: D. Peterson
KS Agric. Exp. Stn. Report of Prog. 1099, December 2013

14-202-B Climate change and agriculture in the United States: Effects and adaptation
C.L. Walthall, J. Hatfield, P. Backlund, L. Lengnick, E. Marshall, M. Walsh, S. Adkins, M. Aillery, E.A. Ainsworth, C. Ammann, C.J. Anderson, I. Bartomeus, L.H. Baumgard, F. Booker, B. Bradley, D.M. Blumenthal, J. Bunce, K. Burkey, S.M. Dabney, J.A. Delgado, J. Dukes, A. Funk, K. Garrett, M. Glenn, D.A. Grantz, D. Goodrich, S. Hu, R.C. Izaurralde, R.A.C. Jones, S-H. Kim, A.D.B. Leaky, K. Lewers, T.L. Mader, A. McClung, J. Morgan, D.J. Muth, M. Nearing, D.M. Oosterhuis, D. Ort, C. Parmesan, W.T. Pettigrew, W. Polley, R. Rader, C. Rice, M. Rivington, E. Rosskopf, W.A. Salas, L.E. Sollenberger, R. Srygley, C. Stöckle, E.S. Takle, D. Timlin, J.W. White, R. Winfree, L. Wright-Morton, L.H. Ziska
USDA Technical Bulletin 1935
Washington, DC, 186 pp., 2013
http://www.usda.gov/oce/climate_change/effects.htm

14-217-J Association analysis identified stem rust resistance genes in U.S. winter wheat
D. Zhang, G. Bai, R.L. Bowden, Y. Jin, J. Yu, B. Carver
PLOS ONE
2014
doi:10.1371/journal.pone.0103747

14-242-J Characterization of a spring wheat association mapping panel for root traits
S. Narayanan, P.V. Vara Prasad
Agronomy Journal
106(5):1593-1604, 2014
doi:10.2134/agronj14.0015

14-245-J Assessing the residual from fertilizer nitrogen applied to failed corn on the following wheat crop
D.W. Sweeney, D. Ruiz Diaz
Crop Management
2014
doi:10.2134/CM-2014-0005-BR

14-274-J Influence of nitrogen fertilizer on growth and yield of grain sorghum hybrids and inbred lines
G.Y. Mahama, P.V. Vara Prasad, D.B. Mengel, T.T. Tesso
Agronomy Journal
106(5):1623-1630, 2014
doi:10.2134/agronj14.0092

14-285-J Quantifying potential benefits of drought and heat tolerance in rainy season sorghum for adapting to climate change
P. Singh, S. Nedumaran, P.C.S. Traore, K.J. Boote, H.F.W. Rattunde, P.V.V. Prasad, N.P. Singh, K. Srinivas, M.C.S. Bantilan
Agricultural and Forest Meteorology
185:37-48, 2014
doi:10.1016/j.agrformet.2013.10.012

14-288-J Natural variation in the regulation of leaf senescence and relation to N and root traits in wheat
K.B. Hebbar, J. Rane, S. Ramana, S. Navraten Panwar, S. Ajay, A. Subba Rao, P.V.V. Prasad
Plant and Soil
378(1-2):99-112, 2014
doi:10.1007/s11104-013-2012-6

14-293-J Safety of gardening on lead- and arsenic-contaminated urban brownfields
P.P. Defoe, G.M. Hettiarachchi, C. Benedict, S. Martin
Journal of Environmental Quality
43(6):2064-2078, 2014
doi:10.2134/jeq2014.03.0099

14-304-S 2013 Kansas Fertilizer Research
Multiple authors
Coordinating author: D. Ruiz Diaz Suarez
KS Agric. Exp. Stn. Report of Prog. 1103, April 2014

14-305-S 2013 National Winter Canola Variety Trial
Multiple authors
Coordinating author: M. Stamm
KS Agric. Exp. Stn. Report of Prog. 1098, April 2014

14-352-S 2014 Field Research
Multiple authors
Coordinating author: E. Adee
KS Agric. Exp. Stn. Report of Prog. 1102, April 2014

14-368-J Consistency of wind erosion assessments across land use and land cover types: a critical analysis
J. Li, G.S. Okin, J. Tatarko, N.P. Webb, J.E. Herrick
Aeolian Research
15:253-260, 2014
doi:10.1016/j.aeolia.2014.04.007

14-374-J Current irrigation practices in the central United States reduce drought and extreme heat impacts for maize and soybean, but not for wheat
T. Zhang, X. Lin, G. Sassenrath
Science of the Total Environment
508:331-342, 2015
doi:10.1016/j.scitotenv.2014.12.004

14-385-J Assessing student learning with surveys and a pre-test/post-test in an online course
J. Domenghini, D. Bremer, S. Keeley, J. Fry, C. Lavis, S. Thien
Natural Sciences Education
43:109-116, 2014
doi:10.4195/nse2014.03.0008

Anatomy and Physiology

13-390-J Cholera toxin enhances Na+ absorption across MCF10A human mammary epithelia
Q. Wang, B.D. Schultz
American Journal of Physiology–Cell Physiology
306:C471-484, 2014
doi:10.1152/ajpcell.00181.2013

14-032-J Transforming growth factor-ß1 impairs CFTR-mediated anion secretion across cultured porcine vas deferens epithelial monolayer via the p38 MAPK pathway
S. Yi, F. Pierucci-Alves, B.D. Schultz
American Journal of Physiology–Cell Physiology
305(8):C867-76, 2013
doi:10.1152/ajpcell.00121.2013

14-152-J Genome-wide analysis of antiviral signature genes in porcine macrophages at different activation statuses
Y. Sang, W. Brichalli, R.R.R. Rowland, F. Blecha
PLOS ONE
2014
doi:10.1371/journal.pone.0087613

14-217-J Association analysis identified stem rust resistance genes in U.S. winter wheat
D. Zhang, G. Bai, R.L. Bowden, Y. Jin, J. Yu, B. Carver
PLOS ONE
2014
doi:10.1371/journal.pone.0103747

14-243-J Antiviral regulation in porcine monocytic cells at different activation statuses
Y. Sang, R.R.R. Rowland, F. Blecha
Journal of Virology
2014
doi:10.1128/JVI.01714-14

14-386-J Molecular evolution of the porcine type I interferon family: Subtype-specific expression and antiviral activity
Y. Sang, F. Blecha
PLOS ONE
2014
doi:10.1371/journal.pone.0112378

Animal Sciences and Industry

13-003-J Advanced oxidation technology with photohydroionization as a surface treatment for controlling *Listeria monocytogenes* on stainless steel surfaces and ready-to-eat cheese and turkey
J.K. Saini, J.L. Marsden, K.J.K. Getty, D.Y.C. Fung
Foodborne Pathogens and Disease
11(4):295-300, 2014
doi:10.1089/fpd.2013.1512

13-058-J Effects of prepartum dietary cation-anion difference and acidified coproducts on serum calcium, postpartum health and performance of dairy cows
D.J. Rezac, E. Block, D. Weber, M.J. Brouk, B.J. Bradford
Journal of Dairy Science
92:666-675, 2014
doi:10.2527/jas.2013-6317

13-222-J Carcass and meat quality characteristics of Brahman cross bulls and steers finished on tropical pastures in Costa Rica
J. Rodriguez, J. Unruh, M. Villarreal, O. Murillo, S. Rojas, J. Camacho, J. Jaeger, C. Reinhardt
Meat Science
96(3):1340-1344, 2014
doi:10.1016/j.meatsci.2013.10.024

13-245-J Nutrient database for sorghum distillers dried grains with solubles from ethanol plants in the western plains region and their effects on nursery pig performance
K.M. Sotak, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.M. DeRouchey, J.L. Nelssen
Journal of Animal Science
92(1):292-302, 2014
doi:10.2527/jas.2013-6599

13-248-J Effects of lowering dietary fiber before marketing on finishing pig growth performance, carcass characteristics, carcass fat quality, and intestinal weights
M.D. Asmus, J.M. DeRouchey, M.D. Tokach, S.S. Dritz, T.E. Houser, J.L. Nelssen, R.D. Goodband
Journal of Animal Science
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Multiple authors
Coordinating author: J. Lingenfelser
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14-039-S 2013 Kansas Performance Tests with Soybean Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1094, December 2013

14-040-S 2013 Kansas Performance Tests with Grain Sorghum Hybrids
Multiple authors
Coordinating author: J. Lingenfelser
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14-041-S 2013 Kansas Performance Tests with Sunflower Hybrids
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Coordinating author: J. Lingenfelser
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Multiple authors
Coordinating author: J. Lingenfelser
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Multiple authors
Coordinating author: J. Lingenfelser
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Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1094, December 2013

14-040-S 2013 Kansas Performance Tests with Grain Sorghum Hybrids
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14-041-S 2013 Kansas Performance Tests with Sunflower Hybrids
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14-042-S 2013 Kansas Performance Tests with Alfalfa Varieties
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14-109-J Testing gridded NWS 1-day observed precipitation analysis in a daily irrigation scheduler
G.F. Sassenrath, J.M. Schneider, A.M. Schmidt, J.Q. Corbitt, J.M. Halloran, R. Prabhu
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Multiple authors
Coordinating author: D. Ruiz Diaz Suarez
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14-306-S 2014 Agricultural Research–SEARC
Multiple authors
Coordinating author: L. Lomas
KS Agric. Exp. Stn. Report of Prog. 1105, April 2014

14-352-S 2014 Field Research
Multiple authors
Coordinating author: E. Adee
KS Agric. Exp. Stn. Report of Prog. 1102, April 2014

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T. Zhang, X. Lin, G. Sassenrath
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14-002-B Corn and grain sorghum comparison: All things considered
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Multiple authors
Coordinating author: J. Lingenfelser
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Multiple authors
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Multiple authors
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I. Kisekka, K.W. Migliaccio, R. Muñoz-Carpena, B. Schaffer, Y. Khare
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Multiple authors
Coordinating author: K. Harmoney
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Multiple authors
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C.D. Reinhardt, C.I. Vahl, B.E. Depenbusch, J.P. Hutcheson, D.U. Thomson
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J.K. Craver, C.T. Miller, K.A. Williams, N.M. Bello
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