



DIRECTOR'S REPORT OF RESEARCH IN KANSAS 2012

JULY 1, 2011–JUNE 30, 2012



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, 2012. 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 2012 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 2012 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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 - 13*** Animal Sciences and Industry
 - 15*** Biochemistry and Molecular Biophysics
 - 15*** Biological and Agricultural Engineering
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 - 17*** Clinical Sciences
 - 17*** Diagnostic Medicine/Pathobiology
 - 18*** Division of Biology
 - 19*** Entomology
 - 21*** Grain Science and Industry
 - 23*** Horticulture, Forestry, and Recreation Resources
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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.

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, 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
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
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
International Grains Program
International Meat and Livestock Program
Plant Biotechnology Center
Veterinary Diagnostic Lab
Weather Data Library
Wheat Genetic and Genomic Resources Center

* List includes units having faculty with KAES appointments in fiscal year 2012. 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.

Station Publications

Reports of Progress

SRP 1053	K-State Turfgrass Research 2011
SRP 1054	2011 Kansas Performance Tests with Winter Wheat Varieties
SRP 1055	2011 Kansas Performance Tests with Corn Hybrids
SRP 1056	Swine Day 2011
SRP 1057	Dairy Research 2011
SRP 1058	2011 Kansas Performance Tests with Soybean Varieties
SRP 1059	2011 Kansas Performance Tests with Grain Sorghum Hybrids
SRP 1060	2011 Kansas Performance Tests with Sunflower Hybrids
SRP 1061	2011 Kansas Performance Tests with Alfalfa Varieties
SRP 1062	2011 National Winter Canola Variety Trial
SRP 1063	2012 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
SRP 1064	2011 Kansas Performance Tests with Cotton Varieties
SRP 1065	Cattlemen's Day 2012
SRP 1066	Field Research 2012
SRP 1067	Kansas Fertilizer Research 2011
SRP 1069	2012 Agricultural Research, Southeast Agricultural Research Center
SRP 1070	Field Day 2012, Southwest Research-Extension Center

Special Publications

DRR11	Director's Report of Research in Kansas 2011
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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, 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

- 12-007-J Determining the probability of default of agricultural loans in a French bank
A. Joualt, A.M. Featherstone
Journal of Applied Finance and Banking, 1(1):1-30, 2011
- 12-008-J Labor productivity convergence in the Kansas farm sector: A three-stage procedure using data envelopment analysis and semiparametric regression analysis
A. Muger, M. Langemeier, A. Featherstone
Journal of Productivity Analysis, 38(1):63-79, 2012
doi:10.1007/s11123-011-0235-1, 2011
- 12-035-J On the relationship between openness to trade and efficiency levels in low-income countries: Evidence from the Latin American and the Caribbean countries
A. Chacon-Cascante, A.M. Featherstone
International Research Journal of Finance and Economics, 74:169-87, 2011
- 12-082-D Impact of tillage system on input demands for farms
E. Yeager, M. Langemeier, T. Xia
Agricultural Economics Staff Paper no. 12-01, 2011, 19 pp.
- 12-118-D Staff, programs, and publications in Agricultural Economics, Kansas State University 2010
J. Maberry
Agricultural Economics Staff Paper no. 11-04, 2011, 55 pp.
- 12-119-D Staff, programs, and publications in Agricultural Economics, Kansas State University 2009
J. Maberry
Agricultural Economics Staff Paper no. 10-3, 2010, 47 pp.
- 12-213-J Measuring the benefits to advertising under monopolistic competition
Boland, M.A., J.M. Crespi, J. Silva, T. Xia
Journal of Agricultural and Resource Economics, 37(1):144-155, 2012
- 12-236-D 2011 nonirrigated crop-share leasing arrangements in Kansas
J.B. Schlegel, L.J. Tsoodle
Agricultural Economics Staff Paper no. 12-02, 2011, 22 pp.
- 12-272-J Fixed effects estimation of the intensive and extensive margins of irrigation water demand
N.P. Hendricks, J.M. Peterson
Journal of Agricultural and Resource Economics, 37(1):1-19, 2012
- 12-285-A Do men and women perform differently on different types of test questions?
A.S. Thompson, A.L. Jager, R.O. Burton, Jr.
Proceedings of SAEA [Southern Agricultural Economics Association] annual meeting
Birmingham, AL, 2012
- 12-291-J Nitrogen fertilization affects economic return from crabgrass hay
J.L. Moyer, K. Dhuyvetter, D.W. Sweeney
Forage and Grazinglands, 2012
doi:10.1094/FG-2012-0320-01-RS
- 12-365-D Staff, programs, and publications in Agricultural Economics, Kansas State University 2011
Agricultural Economics Staff Paper no. 12-03, 2011, 73 pp.
- 12-396-J A stochastic production function analysis of maize hybrids and yield variability in drought-prone areas of Kenya
A.D. Jones, T.J. Dalton, M. Smale
Tegemeo Institute of Agricultural Policy and Development, WPS 49, 2012

Agricultural Research Center–Hays

- 12-017-S 2011 Kansas Performance Tests with Winter Wheat Varieties
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1054, July 2011
- 12-052-J Sorghum pathology and biotechnology - A fungal disease perspective: Part II. Anthracnose, stalk rot, and downy mildew
T. Tesso, R. Perumal, C.R. Little, A. Adeyanju, G.L. Radwan, L.K. Prom, C.W. Magill
European Journal of Plant Science and Biotechnology, 6(1):31-45, 2012
- 12-055-J Effects of prepartum and postpartum bolus injections of trace minerals on performance of beef cows and calves grazing native range
L.R. Mundell, J.R. Jaeger, J.W. Waggoner, J.S. Stevenson, D.M. Grieger, L.A. Pacheco, J.W. Bolte, N.A. Aubel, G.J. Eckerle, M.J. Macek, S.M. Ensley, L.J. Havenga, KC Olson
The Professional Animal Scientist, 28(1):82-88, 2012
- 12-088-J Larval food supply constrains female reproductive schedules in *Hippodamia convergens* (Coleoptera: Coccinellidae)
G. Vargas, J.P. Michaud, J.R. Nechols
Annals of the Entomological Society of America, 105(6):832-839, 2012
- 12-090-J Comparing morphological development and nutritive value of Caucasian old world bluestem and native grasses
K.R. Harmony, K.R. Hickman
Forage and Grazinglands, 2012
doi:10.1094/FG-2012-0127-01-RS
- 12-096-J Effects of a new herbicide (Aminocyclopyrachlor) on buffalograss and forbs in shortgrass prairie
K.R. Harmony, P.W. Stahlman, P.W. Geier, R. Rupp
Weed Technology, 26(3):455-459, 2012
- 12-137-A Subsurface drip irrigation in alfalfa
F.R. Lamm, K.R. Harmony, A.A. Aboukheira, S.K. Johnson
Proceedings of the Irrigation Association Technical Conference, San Diego, California, November 6-8, 2011, 10 pp.
- 12-150-J Single and sequential applications of tribenuron on broadleaf weed control and crop response in tribenuron-resistant sunflower
A.S. Godar, P.W. Stahlman, J.A. Dille
Weed Technology, 25(3):391-397, 2011
doi:10.1614/WT-D-10-00154.1
- 12-184-J Summer cover crops fix nitrogen, increase crop yield, and improve soil-crop relationships
H. Blanco-Canqui, M.M. Claassen, D.R. Presley
Agronomy Journal, 104(1):137-147, 2012
- 12-198-J Cryptic maternal effects in the ladybird beetle *Hippodamia convergens* vary with maternal age and body size
G.A. Vargas, J.P. Michaud, J.R. Nechols
Entomologia Experimentalis et Applicata, 146: 302-311, 2012
- 12-209-S 2012 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
Multiple authors
Coordinating authors: D. Peterson, C.R. Thompson
KS Agric. Exp. Stn. Report of Prog. 1063, December 2011
- 12-214-S 2011 Kansas Performance Tests with Soybean Varieties
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1058, December 2011
- 12-215-S 2011 Kansas Performance Tests with Corn Hybrids
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1055, November 2011

- 12-216-S 2011 Kansas Performance Tests with Grain Sorghum Hybrids
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1059, December 2011
- 12-221-J Alfalfa production with subsurface drip irrigation in the Central Great Plains
F.R. Lamm, K.R. Harmoney, A.A. Aboukheira, S.K. Johnson
Transactions of the ASABE, 55(4):1203-1212, 2012
- 12-245-S 2011 Kansas Performance Tests with Sunflower Hybrids
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1060, January 2012
- 12-246-S 2011 Kansas Performance Tests with Alfalfa Varieties
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1061, January 2012
- 12-259-J Multi-location study of soil enzyme activities as affected by types and rates of manure application and tillage practices
V. Acosta-Martinez, M.M. Mikha, K.R. Sistani, P.W. Stahlman, J.G. Benjamin, M.F. Vigil, R. Erickson
Agriculture, 1(1):4-21, 2011
doi:10.10.3390/agriculture1010004
- 12-293-S 2012 Field Research
Multiple authors
KS Agric. Exp. Stn. Report of Prog. 1066, April 2012
- 12-294-S 2011 Kansas Fertilizer Research
Multiple authors
KS Agric. Exp. Stn. Report of Prog. 1067, April 2012
- 12-333-J New sources of resistance in Sorghum [*Sorghum bicolor* (L.) Noench] 'Minicor' germplasm are effective against a diverse array of Potyvirus species
D.L. Seifers, R. Perumal, C. Little
Plant Disease, 96(12):1775-1779, 2012
- 12-358-J Field Day 2012 SWREC
Multiple authors
KS Agric. Exp. Stn. Report of Prog. 1070, May 2012
- Agronomy**
- 12-005-J Interpreting relationships between soil variables and soybean iron deficiency using factor analysis
A.M. Liesch, D.A. Ruiz Diaz
Soil Science Society of America Journal, 76(4):1311-1318, 2012
doi:10.2136/sssaj2011.0379
- 12-014-J Physicochemical properties and adhesion performance of canola protein modified with sodium bisulfite
N. Li, G. Qi, X.S. Sun, M. J. Stamm, D. Wang
Journal of the American Oil Chemists' Society, 89(5):897-908, 2012
doi:10.1007/s11746-011-1977-7
- 12-017-S 2011 Kansas Performance Tests with Winter Wheat Varieties
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1054, July 2011
- 12-031-J Dryland and irrigated corn yield with climate, management, and hybrid changes from 1939 through 2009
Y. Assefa, K.L. Roozeboom, S.A. Staggenborg, J. Du
Agronomy Journal, 104(2):473-482, 2012
- 12-051-J Sorghum pathology and biotechnology - A fungal disease perspective: Part I. Grain mold, head smut, and ergot
C.R. Little, R. Perumal, T. Tesso, L.K. Prom, G.N. Odvody, C.W. Magill
European Journal of Plant Science and Biotechnology, 6(1):10-30, 2012

- 12-052-J Sorghum pathology and biotechnology - A fungal disease perspective: Part II. Anthracnose, stalk rot, and downy mildew
T. Tesso, R. Perumal, C.R. Little, A. Ad-eyanju, G.L. Radwan, L.K. Prom, C.W. Magill
European Journal of Plant Science and Biotechnology, 6(1):31-45, 2012
- 12-056-J Integrating rare-variant testing, function prediction, and gene network in composite resequencing-based genome-wide association studies (CR-GWAS)
C. Zhu, X. Li, J. Yu
G3: Gene, Genomes, Genetics, 1(3):233-243, 2011
doi:10.1534/g3.111.000364
- 12-057-D Effects of Austrian winter pea cover crop and nitrogen rates on grain sorghum yield in a cover crop, grain sorghum, winter wheat rotation
W. Heer, K. Roozeboom, J. Shroyer
KS. Agric. Exp. Sta. Keeping up with Research (SRL) 142, September 2011
- 12-066-J Speciation of phosphorus in a fertilized, reduced till soil system: In-field treatment incubation study
R. Khatiwada, G.M. Hettiarachchi, D.B. Mengel
Soil Science Society of America Journal, 76(6):2006-2018, 2012
doi:10.2136/sssaj2011.0299
- 12-068-J Genotypic variation within sorghum in transpiration response to drying soil
M. Gholipour, T. R. Sinclair, P.V.V. Prasad
Plant Soil, 357(1-2):35-40, 2012
- 12-072-J High-iron biosolids compost-induced changes in lead and arsenic speciation and bioaccessibility in co-contaminated soils
S.L. Brown, I. Clausen, M.A. Chappell, K.G. Scheckel, M. Newville, G.M. Hettiarachchi
Journal of Environmental Quality, 41(5):1612-1622, 2012
doi:10.2134/jeq2010.0139
- 12-089-J Managing diminished irrigation capacity with preseason irrigation and plant density for corn production
A. Schlegel, L. Stone, T. Dumler, F. Lamm
Transactions of the ASABE, 55(2):525-531, 2012
- 12-093-J Quantitative trait loci responsible for Fusarium head blight resistance in Chinese landrace Baishanyuehuang
X. Zhang, H. Pan, G. Bai
Theoretical and Applied Genetics, 125(3):495-502, 2012
doi:10.1007/s00122-012-1848-0
- 12-113-J Registration of malt sorghum varieties, Macia and Red Swazi
A. Adugna, T. Tesso, T. Tadesse, E. Degu, G. Gebeyehu, S. Yetneberk, S. Admase, M. Bekele, Z. Elias, T. Woldu, T. Hadis, M. Teshome
Ethiopian Journal of Agricultural Science, 21:136-137, 2011
- 12-114-J Registration of pearl millet [*Pennisetum glaucum* (L.) R. Br.] Variety, Kola-1
A. Adugna, T. Tesso, E. Degu, T. Tadesse, S. Yetneberk, S. Admase, M. Bekele, Z. Elias, T. Woldu, T. Hadis, M. Teshome
Ethiopian Journal of Agricultural Science, 21:138-139, 2011
- 12-150-J Single and sequential applications of tribenuron on broadleaf weed control and crop response in tribenuron-resistant sunflower
A.S. Godar, P.W. Stahlman, J.A. Dille
Weed Technology, 25(3):391-397, 2011
doi:10.1614/WT-D-10-00154.1
- 12-162-J Impact of pelleting and acid pretreatment on biomass structure and thermal properties of wheat straw, corn stover, big bluestem, and sorghum stalk
K. Theerarattananoon, F. Xu, J. Wilson, S. Staggenborg, L. Mckinney, P. Vadlani, Z.J. Pei, D. Wang
Transactions of the ASABE, 55(5):1845-1858, 2012

- 12-184-J Summer cover crops fix nitrogen, increase crop yield, and improve soil-crop relationships
Humberto Blanco-Canqui, M.M. Claassen, D.R. Presley
Agronomy Journal, 104(1):137-147, 2012
- 12-199-B Computer simulation in plant breeding
X. Li, C. Zhu, J. Wang, J. Yu
Advances in Agronomy, 116:219-264, 2012
- 12-200-J Genic and non-genic contributions to natural variation of quantitative traits in maize
X. Li, C. Zhu, C-T. Yeh, W. Wu, E.M. Takacs, K.A. Petsch, F. Tian, G. Bai, E.S. Buckler, G.J. Muehlbauer, M.C.P. Timmermans, M.J. Scanlon, P. S. Schnable, J. Yu
Genome Research, 22(12):2436-2444, 2012
- 12-201-J Parallel domestication of the *Shattering1* genes in cereals
Z. Lin, X. Li, L.M. Shannon, C-T. Yeh, M.L. Wang, G. Bai, Z. Peng, J. Li, H.N. Trick, T.E. Clemente, J. Doebley, P.S. Schnable, M.R. Tuinstra, T.T. Tesso, F. White, J. Yu
Nature Genetics, 44(6):720-724, 2012
doi:10.1038/ng.2281
- 12-209-S 2012 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
Multiple authors
Coordinating authors: D. Peterson, C.R. Thompson
KS Agric. Exp. Stn. Report of Prog. 1063, December 2011
- 12-210-J Effect of drought and high temperature stress on synthetic hexaploid wheat
G.P. Pradhan, P.V.V. Prasad, A.K. Fritz, M.B. Kirkham, B.S. Gill
Functional Plant Biology, 39(3):190-198, 2012
- 12-211-J Response of streamflow to climate change and human activities in Xitiaoqi river basin in China
C. Zhang, B. Zhang, W. Li, F. Jin
Hydrological Processes, 2012
doi:10.1002/hyp.9539
- 12-214-S 2011 Kansas Performance Tests with Soybean Varieties
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1058, December 2011
- 12-215-S 2011 Kansas Performance Tests with Corn Hybrids
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1055, November 2011
- 12-216-S 2011 Kansas Performance Tests with Grain Sorghum Hybrids
Multiple authors
Coordinating author: J. Lingenfelser
KS Agric. Exp. Stn. Report of Prog. 1059, December 2011
- 12-217-B Research needs for agriculture under elevated carbon dioxide
M.B. Kirkham
In: Handbook of Climate Change and Agroecosystems: Global and Regional Aspects and Implications, D. Hillel and C. Rosenzweig (Eds.)
London: World Scientific, pp. 225-234, 2012
- 12-226-J Allometric model to quantify sorghum canopy formation
S. Narayanana, R.M. Aiken, P.V. V. Prasad, Z. Xin, G. Paul, J. Yu
ASA CSSA SSSA International Annual Meetings, San Antonio, TX, 2011
- 12-228-J Internationalization of soil physics from an American perspective
M.B. Kirkham
International Agrophysics, 26(2):181-185, 2012
doi:10.2478/v10247-012-0026-6

- 12-245-S 2011 Kansas Performance Tests with Sunflower Hybrids
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1060, January 2012
- 12-246-S 2011 Kansas Performance Tests with Alfalfa Varieties
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1061, January 2012
- 12-257-J Assessing the educational needs of urban gardeners and farmers on the subject of soil contamination
A.M. Raes Harms, D.R. Presley, G.M. Hettiarachchi, S.J. Thien
Journal of Extension, 51(1), 2011
- 12-290-J Nutrient losses in field-scale surface runoff from claypan soil receiving turkey litter and fertilizer
D.W. Sweeney, G.M. Pierzynski, P.L. Barnes
Agriculture, Ecosystems & Environment 150:19–26, 2012
- 12-293-S 2012 Field Research
Multiple authors
KS Agric. Exp. Stn. Report of Prog. 1066, April 2012
- 12-294-S 2011 Kansas Fertilizer Research
Multiple authors
KS Agric. Exp. Stn. Report of Prog. 1067, April 2012
- 12-302-J Presence of tannins in sorghum grains is conditioned by different natural alleles of *Tannin1*
X. Li, W. Xiang, C. Zhu, Z. Lin, Y. Wu, J. Li, S. Pandravada, D.D. Ridder, G. Bai, M.L. Wang, H.N. Trick, S.R. Bean, M.R. Tuinstra, T.T. Tesso, J. Yu
PNAS, 109(26):10281–10286, 2012
- 12-311-A Assessment of plant-available soil water on producer fields in Western Kansas
F.R. Lamm, D.H. Rogers, A.J. Schlegel, N.L. Klocke, L.R. Stone, R.M. Aiken, L.K. Shaw
Proceedings of the 24th Annual Central Plains Irrigation Conference
Colby, KS, 2012
- 12-314-A Optimizing cropping systems under limited irrigation conditions
A. Schlegel, L. Stone, T. Dumler, F. Lamm
Proceedings of the 24th Annual Central Plains Irrigation Conference
Colby, KS, 2012
- 12-315-A A return look at dormant-season irrigation strategies
A. Schlegel, L. Stone, T. Dumler, F. Lamm
Proceedings of the 24th Annual Central Plains Irrigation Conference
Colby, KS, 2012
- 12-319-J Spatial application of WEPS for estimating wind erosion in the Pacific Northwest
L. Wagner, F. Fox, S. Chung, B. Lamb
Transactions of the ASABE
Proceedings International Symposium on Erosion and Landscape Evolution (ISELE), Anchorage, AK, 2011
- 12-322-J Overview of the management submodel in the Wind Erosion Prediction System
L. Wagner
Proceedings International Symposium on Erosion and Landscape Evolution (ISELE), Anchorage, AK, 2011
- 12-328-J Selenate-enriched urea granules are a highly effective fertilizer for selenium biofortification of paddy rice grain
L. Premarathna, M. McLaughlin, J. Kirby, G.M. Hettiarachchi, S. Stacey, D. Chittleborough
Journal of Agricultural and Food Chemistry, 60(23):6037–6044, 2012
doi:10.1021/jf3005788

- 12-332-B Association mapping of genetic resources: Achievements and future perspectives
S. Sukumaran, J. Yu
2nd International Symposium on Genomics of Plant Genetic Resources
Bologna, Italy, 2010
- 12-336-J A History of Wind Erosion Prediction in the United States Department of Agriculture
J. Tatarko, M.A. Sporcic, E.L. Skidmore
Aeolian Research, 2012
doi:10.1016.j/aeolia.2012.08.004
- 12-349-S 2012 Agricultural Research SEARC Multiple authors
Coordinating author: Lyle Lomas
KS Agric. Exp. Stn. Report of Prog. 1069, April 2012
- 12-372-J Roles of protein synthesis elongation factor EF-Tu in heat tolerance in plants
J. Fu, I. Momcilovic, P.V.V. Prasad
Journal of Botany, 2012
doi:10.1155/2012/835836
- 12-407-S 2011 Kansas Performance Tests with Cotton Varieties
Multiple authors
Coordinating author: J. Lingenfelter
KS Agric. Exp. Stn. Report of Prog. 1064, April 2012
- 12-408-J Changes in stomatal conductance along grass blades reflect changes in leaf structure
T.W. Ocheltree, J.B. Nippert, P.V.V. Prasad
Plant Cell and Environment, 35(6):1040-1049, 2012
- 12-428-B Molecular basis and improvement of heat tolerance in crop plants
J. Fu, I. Momcilovic, P.V.V. Prasad
In: Heat Stress, Causes, Treatment, and Prevention
Hauppauge, NY: Nova Science Publishers, pp. 185-214
- 12-463-J Association mapping for grain quality in a diverse sorghum collection
S. Sukumaran, W. Xiang, S.R. Bean, J.F. Pedersen, M.R. Tuinstra, T.T. Tesso, M.T. Hamblin, J. Yu
The Plant Genome, 5(3):126-135, 2012
- Anatomy and Physiology**
- 12-048-J Ring opening of epoxidized methyl oleate using novel acid-functionalized iron nanoparticle catalyst
B.K. Ahn, H. Wang, S. Robinson, T.B. Shrestha, D.L. Troyer, S. Bossmann, X.S. Sun
Green Chemistry, 14(1): 136-142, 2012
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