

DIRECTOR'S REPORT OF RESEARCH IN KANSAS 2018 AND 2019

JULY 1, 2017–JUNE 30, 2019

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 Laura Kelly, 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, 2019. This report contains the title, author, and publication information for manuscripts published by station scientists. The report was published only in electronic format.

J. Ernest Minton
Dean, College of Agriculture
Director, K-State Research and Extension

A Message from the Director

It is a pleasure to provide the 2018 and 2019 Director's Report of Research in Kansas. The report documents our research programs and some of our accomplishments. K-State Research and Extension provides trusted, practical education to help individuals, businesses and communities solve problems, develop skills, and build a better future.

This report is produced and distributed in electronic format. This reduces printing costs and makes the report accessible to a broader audience.

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

The Kansas Agricultural Experiment Station was established in 1887 to conduct research vital to the success of Kansas. In 1914, the Kansas Cooperative Extension Service was created to disseminate research-based information to the public. During our strategic planning process, we received input from 5,000 stakeholders to determine five grand challenges facing Kansans — global food systems, water, health, developing tomorrow's leaders, and community vitality. Our research programs provide the latest information through our statewide network to address those challenges.

J. Ernest Minton
Dean, College of Agriculture
Director, K-State Research and Extension

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A Message from the Associate Director of Research

The Hatch Act established the Kansas Agricultural Experiment Station in 1887 as the food, agriculture, and natural resources research component of Kansas State University, the nation's first operational land-grant university.

Our statewide network of centers and experiment fields allows our faculty to evaluate crop and livestock production systems across a wide range of environmental conditions.

This research helps Kansas farmers contribute to feeding a growing world population. By 2050, there will be an estimated 9.6 billion people globally. Every year, we develop and test nearly 1,000 new wheat breeding lines, tirelessly working to find only the best ones that will grow well in Kansas. A K-State wheat variety has been the top variety planted in Kansas for eight of the past nine years.

Great wheat varieties mean great harvests for Kansas farmers, which in turn benefit the local, regional and state economies.

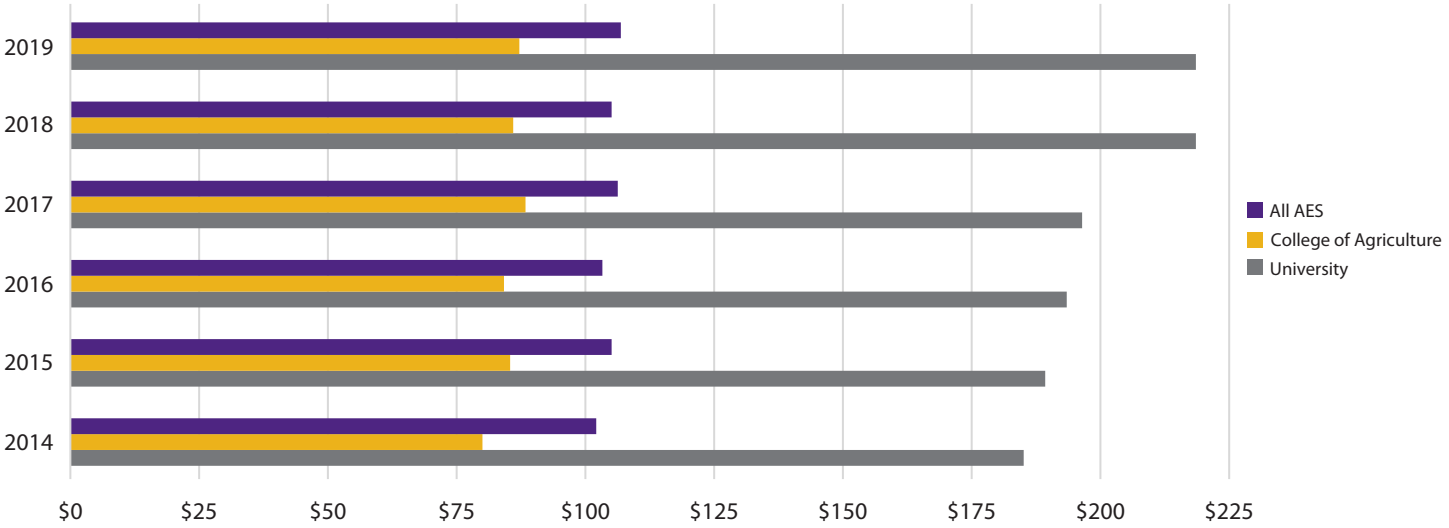
K-State's Agricultural Experiment Station funds research in 18 academic departments across five colleges on two campuses. In addition to long-term research projects on livestock and crop breeding, scientists are looking at new ways to control pests and diseases, emerging technologies to save water and energy, food safety, postharvest storage, weed control, and more. As an example of our researchers' capabilities, when it became clear that industrial hemp presented an opportunity as an alternative crop, we were able to quickly begin field trials at the John C. Pair Horticultural Center so that Kansas farmers might have the option of safely growing the crop.

As Kansas' largest employer, agriculture contributes 43 percent of the state's economy. According to current data from the national study, Feeding the Economy, 258,670 people are directly employed in Kansas agriculture, accounting for more than $9.26 billion in wages and $11.2 billion in business taxes. Our research focuses on the agricultural industry and helping it grow in a sustainable manner.

Kansas Agricultural Experiment Station research expenditures — all funds used to produce research outcomes — represent the majority of Kansas State University's total research effort. Funds are usually awarded through a highly competitive federal grant system.

Martin Draper
Associate Dean, Research and Graduate Studies
Director for Research

Agricultural Experiment Station and University Research Expenditures (in millions)



Making a State Impact

Kansas' Pet Food Industry Has Found Its New Best Friend

In 2012, the College of Ag launched the K-State Pet Food Program. It's the first of its kind offering education and research devoted to improving the nutrition and safety of food for pets, and endangered and captive wild animals.

Greg Aldrich, a research associate professor for the college, helped start and continues to coordinate the program. He's not hard to spot. Aldrich is the one with the silver lab, Lucre, always by his side.

In recent years, pet food has become serious business, especially in Kansas. Pet food manufacturers located within the Kansas City Animal Health Corridor had sales of $30.6 billion in 2014. This represents 61% of the total pet food sold in the US and accounts for 49% of global pet food sales, according to the KC Animal Health Corridor's 2014 Asset Survey. The Animal Health Corridor runs from Kansas State University in Manhattan to the University of Missouri in Columbia. Between these two research universities are more than 300 companies and organizations focused on animal health and nutrition, including Hill's Pet Nutrition, Mars Petcare, Nestlé Purina PetCare and Cargill.

"Pet food manufacturers in the Kansas City Animal Health Corridor had sales representing 61% of the total pet food sold in the US."

At K-State, Aldrich's focus is on educating students to become leaders in the pet food industry, and provide research to companies to make their pet food safer, more nutritious and have a longer shelf life.

Aldrich spent the majority of his career working in industry. After earning his PhD from the University of Illinois in animal nutrition, Aldrich joined the Iams Company and then several other companies where he formulated pet diets. From industry, Aldrich moved to consulting, particularly for small startups that are often short on equipment and research staff. His consulting often brought Aldrich to K-State.

"I was using the extrusion laboratory here on campus to make some of these products, and I started a dialogue with some of the faculty," he said.

At first, Aldrich was asked to teach one class, then two classes, and the college hired him to be a research associate professor. Aldrich is excited by his new role.

"The pet food industry is going through a very transformative period," explains Aldrich. "And, the timing couldn't be better. Last year, there were more than 5,000 new pet food products introduced to the world and 475 of those new products came from the US. We're about 50 years behind in what we need to know about companion-animal nutrition, and we have a lot of consumers out there with an appetite for new and better pet food."

Aldrich believes his new role at K-State's College of Ag positions him well to help improve pet nutrition, prepare his students for outstanding careers in this industry, and support the economy of this state by helping Kansas-based pet food companies.

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 and Natural Resources
Plant Pathology

College of Arts and Sciences

Biochemistry and Molecular Biophysics
Division of Biology
Statistics

College of Engineering

Biological and Agricultural Engineering

College of Human Ecology

Apparel, Textiles, and Interior Design
Family Studies and Human Services
Food, Nutrition, Dietetics and Health

College of Veterinary Medicine

Anatomy and Physiology
Clinical Sciences
Diagnostic Medicine/Pathobiology

Research Centers

Agricultural Research Center (Hays, HB Ranch, and Saline Experimental Range)
K-State Research and Extension Center for Horticultural Crops (Olathe)
Northwest Research-Extension Center (Colby)
Southeast Research and Extension Center (Parsons, Columbus, Mound Valley)
Southwest Research Center (Tribune)
Southwest Research-Extension Center (Garden City)

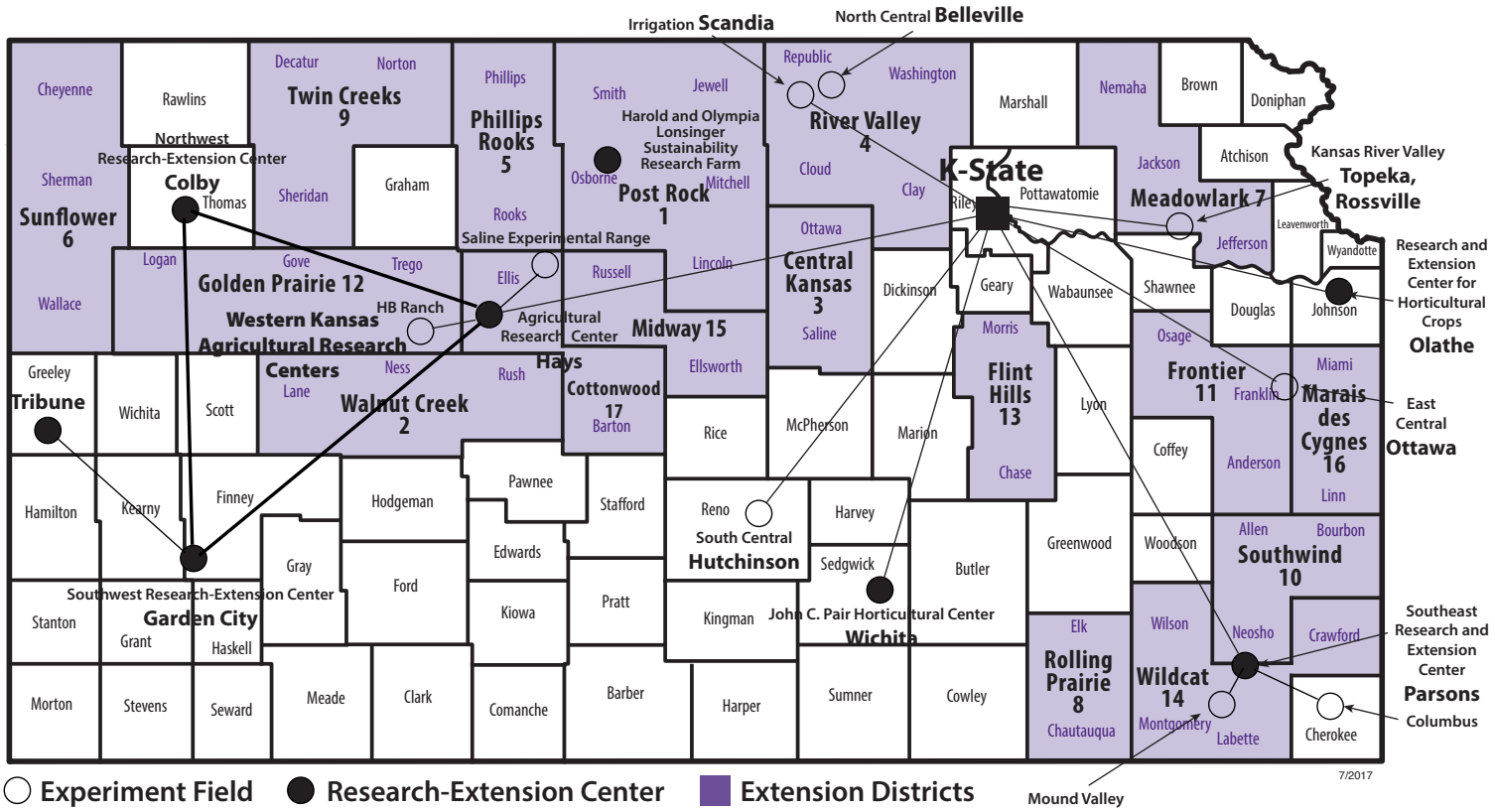
Experiment Fields

East Central (Ottawa)
John C. Pair Horticultural Center (Haysville)
Kansas River Valley (Rossville, Topeka)
North Central and Irrigation (Belleville, Scandia)
Pecan Field (Chetopa)
South Central (Hutchinson)

USAID Feed the Future Innovation Labs

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

Kansas State University Agricultural Research Locations



Associated Programs

AgManager.info
Beef Cattle Research Center
Beef Stocker Unit
Bio Materials and Technology Lab
Bioprocessing and Industrial Value-Added Products
Biosecurity Research Institute
Cargill Feed Safety Research Center
Center for Bio-based Products by Design
Center for Risk Management Education and Research
Center for Rural Enterprise Engagement
Center for Sorghum Improvement
Center for Sustainable Energy
Environmental Health and Safety Office
Food Science Institute
Fungal Genetics Stock Center
Grain-Feed Microbiology and Toxicology Laboratory
Great Plains Diagnostic Network
International Grains Program Institute
Insect Zoo
Hal Ross Flour Mill
Horse Unit
K-State Global Food Systems
K-State Libraries
K-State Meat Lab (cookery, sensory, color, chemistry, microbiology, customized)
K-State Pet Food Program
K-State Radio Network
K-State Rapid Response Center
Kansas Agriculture and Rural Leadership
Kansas Center for Agricultural Resources and the Environment
Kansas Center for Sustainable Agriculture and Alternative Crops
Kansas Cooperative Extension Service
Kansas FFA
Kansas Wheat Innovation Center
Kansas Youth Institute
Kansas Value-Added Foods Lab
Kansas Water Resources Institute
Konza Prairie Biological Station
KSRE News and Media Services
National Science Foundation Industry/University Cooperative Research for Wheat Genetics
O. H. Kruse Feed Technology Innovation Center
Plant Biotechnology Center
Sheep and Meat Goat Center
Soil Carbon Center
Tom Avery Poultry and Game Bird Research Unit
University Gardens
Veterinary Diagnostic Laboratory
Weather Data Library
Wheat Genetics Resource Center
Wheat Quality Lab

Station Publications

Reports of Progress

SRP 1134	2016 National Winter Canola Variety Trials
SRP 1135	2017 Kansas Performance Tests with Winter Wheat Varieties
SRP 1136	2017 Kansas Performance Tests with Corn Hybrids
SRP 1137	2017 Kansas Performance Tests with Soybean Varieties
SRP 1138	2017 Kansas Performance Tests with Grain Sorghum Hybrids
SRP 1139	2018 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
SRP 1140	2017 Kansas Performance Tests with Sunflower Hybrids
SRP 1141	2017 National Winter Canola Variety Trials
SRP 1142	2014-2017 Field Pea Performance Test Results
SRP 1143	2018 Kansas Performance Tests with Winter Wheat Varieties
SRP 1145	2018 Kansas Performance Tests with Corn Hybrids
SRP 1146	2018 Kansas Performance Tests with Soybean Varieties
SRP 1147	2018 Kansas Performance Tests with Grain Sorghum Hybrids
SRP 1148	2019 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
SRP 1149	2018 Kansas Performance Tests with Sunflower Hybrids
SRP 1150	2018 National Winter Canola Variety Trials

Research Reports

2018 Hays Roundup Research Report

2018 and 2019 Research Reports

*Cattlemen's Day
Southeast Research and Extension Center Agricultural Research
Kansas Turfgrass Research
Forage Report
Kansas Field Research
Kansas Fertilizer Research
Southwest Research-Extension Center
Swine Day
Dairy Research

Special Publications

DRR17	Director's Report of Research in Kansas 2017

Understanding Contribution Numbers

Contribution numbers have three parts:

- The first two digits denote the year (state fiscal) of assignment.
- The second set of digits identifies the manuscript (numbered consecutively throughout the year).
- The suffix letter identifies the type of publication.

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:
http://newprairiepress.org/kaesrr/
http://www.bookstore.ksre.ksu.edu/

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/*.

*Kansas Agricultural Experiment Station reports are posted at http://newprairiepress.org/kaesrr/. These reports no longer have "SRP" numbers. They are now listed by volume and issue (2015 Cattlemen's Day Research, Vol. 1, Issue 1; http://newprairiepress.org/kaesrr/vol1/iss1/). Recommended citations and doi numbers are listed with each report.

Recommended Citation
Vesco, A. C.; Sexten, A. K.; Weibert, C. S.; Oleen, B. E.; Hollenbeck, W. R.; Grimes, L C.; and Blasi, Dale (2015) "Evaluation of the Productivity of a Single Subcutaneous Injection of LongRange in Stocker Calves Compared With a Positive (Dectomax) and a Negative (Saline) Control," Kansas Agricultural Experiment Station Research Reports: Vol. 1: Iss. 1. http://dx.doi.org/10.4148/2378-5977.1018

Agricultural Economics

18-015-J Disaggregating sorghum yield reductions under warming scenarios exposes narrow genetic diversity in US breeding programs
J. Tack, J. Lingenfelser, S.V.K. Jagadish
Proceedings of the National Academy of Sciences
August 2017, Vol. 114, No. 35
www.pnas.org/cgi/doi/10.1073/pnas.1706383114

18-028-J The production, consumption and environmental impacts of rice hybridization in the USA
L. Nalley, J. Tack, A. Durand, G. Thoma, F. Tsiboe, A. Shew, A. Barkley
Agronomy Journal
January 2017
Vol. 109, Issue 1, Pg. 193-203
doi.org/10.2134/agronj2016.05.0281

18-029-A Heterogeneous yield impacts from adoption of genetically engineered corn and the importance of controlling for weather
J.L. Lusk, J. Tack, N.P. Hendricks
Agriculture Productivity and Producer Behavior
November 2019, Pg. 11-39
ISBN: 978-0-226-61980-4

18-151-J Irrigation offsets wheat yield reductions from warming temperatures
J. Tack, A. Barkley, N. Hendricks
Environmental Research Letter
November 2017
Vol. 12, No. 11
doi.org/10.1088/1748-9326/aa8d27

18-178-J Are smallholder farmers better or worse off from an increase in the international price of cereals?
T. Nakelse, T.J. Dalton, N.P. Hendricks, M. Hodjo
Food Policy
August 2018, Vol. 79, Pg. 213-223
doi.org/10.1016/j.foodpol.2018.07.006

18-207-J Value of arrival metaphylaxis in U.S. cattle industry
E.J. Dennis, D.L. Pendell, D.G. Renter, T.C. Schroeder
Journal of Agricultural and Resource Economics
May 2018, Vol. 43, Issue 2
https://jareonline.org/articles/value-of-arrival-metaphylaxis-in-u-s-cattle-industry/

18-218-S 2017 Kansas Performance Tests with Corn Hybrids, SRP1136
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-252-J Impact of nitrogen application rate on switchgrass yield, production costs, and nitrous oxide emissions
A. McGowan, D.H. Min, J. Williams, C. Rice
Journal of Environmental Quality
March 2018
Vol. 47, Issue 2, Pg. 228-237
doi.org/10.2134/jeq2017.06.0226

18-309-J Early-season stand count determination in corn via integration of imagery from unmanned aerial systems (UAS) and supervised learning techniques
S. Varela, P. Reddy Dhodda, W.H. Hsu, P.V.V. Prasad, Y. Assefa, N.R. Peralta, T. Griffin, A. Sharda, A. Ferguson, I.A. Ciampitti
Remote Sensing
February 2018
Vol. 10, Issue 2
doi.org/10.3390/rs10020343

18-500-J Economic value and water productivity of major irrigated crops in the Ogallala aquifer region
A. Araya, P.H. Gowda, B. Golden, A.J. Foster, J. Aguilar, R. Currie, I.A. Ciampitti, P.V.V. Prasad
Agriculture Water Management
April 2019, Vol. 214, Pg. 55-63
doi.org/10.1016/j.agwat.2018.11.015

18-511-J How do *E. coli* recalls impact cattle and beef prices?
D. Moon, G.T. Tonsor
Journal of Agricultural and Resource Economics
January 2020
Vol. 45, Issue 1, Pg. 92-106
10.22004/ag.econ.298436

18-520-J From field experiments to regional forecasts: upscaling wheat grain and forage yield response to acidic soils
R.P. Lollato, T.E. Ochsner, D.B. Arnall, T. Griffin, J.T. Edwards
Agronomy Journal
January 2019
Vol. 111, Issue 1, Pg. 287-302
doi.org/10.2134/agronj2018.03.0206

19-092-J The potential implications of 'Big Ag Data' for USDA forecasts
J. Tack, K.H. Coble, R. Johansson, A. Harri, B.J. Barnett
Applied Economics Perspectives and Policy
December 2019
Vol. 41, Issue 4, Pg. 668-683
doi.org/10.1093/aepp/ppy028

19-093-J Warming temperatures will likely induce higher premium rates and government outlays for the US crop insurance program
J. Tack, K. Coble, B. Barnett
Agricultural Economics
September 2018
Vol. 49, Issue 5, Pg. 635-647
doi.org/10.1111/agec.12448

19-094-J Is another genetic revolution needed to offset climate change impacts for US maize yields?
A. Ortiz-Bobea, J. Tack
Environmental Research Letters
November 2018
Vol. 13, No. 12

Agricultural Research Center - Hays

18-016-J Sustainable production of microbial lipids from lignocellulosic biomass using oleaginous yeast cultures
J.-E. Lee, P.V. Vadlani, D. Min
Journal of Sustainable Bioenergy Systems
March 2017
Vol. 7, Pg. 36-50
doi: 10.4236/jsbs.2017.71004

18-018-S 2017 Kansas Performance Tests with Winter Wheat Varieties, SRP1135
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-034-J QTL mapping of pre-harvest sprouting resistance in a white wheat cultivar Danby
M. Shao, G. Bai, T.W. Rife, J. Poland, M. Lin, S. Liu, H. Chen, T. Kumssa, A. Fritz, H. Trick, Y. Li, G. Zhang
Theoretical and Applied Genetics
June 2018
Vol. 131, Vol. 8, Pg. 1683-1697
doi.org/10.1007/s00122-018-3107-5

18-095-S 2017 Southwest Research-Extension Center Research Report
B. Gillen and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 5
newprairiepress.org/kaesrr/vol3/iss5/

18-096-J Serum and plasma metabolites associated with postpartum ovulation and pregnancy risks in suckled beef cows subjected to artificial insemination
S.L. Hill, K.C. Olson, J. R. Jaeger, J.S. Stevenson
Journal of Animal Science
2018
Vol. 57, Issue 3, Pg. 258-272
doi.org/10.1093/jas/skx033

18-116-J Forage and seed production potential, nutritive value, and fatty acid profile of fenugreek
M. Anowarul Islam, A.K. Obour, D.C. Rule, M. Bandara, S.N. Acharya
Crop Science
June 2017
Vol. 108, Issue 2, Pg. 1764-1772
doi.org/10.2135/cropsci2016.08.0685

18-117-J Managing harvest time to control pod shattering in oilseed camelina
H.Y. Sintim, V.D. Zheljazkov, A.K. Obour, A.G. y Garcia
Agronomy Journal
March 2016
Vol. 108, Issue 2, Pg. 656-661
doi.org/10.2134/agronj2015.0300

18-118-J Evaluating agronomic responses of camelina to seeding date under rain-fed conditions
H.Y. Sintim, V.D. Zheljazkov, A.K. Obour, A.G. y Garcia, T.K. Foulke
Agronomy Journal
January 2016
Vol. 108, Issue 1, Pg. 349-357
doi.org/10.2134/agronj2015.0153

18-120-J Nitrogen application in sainfoin under rain-fed conditions in Wyoming: Productivity and cost implications
H.Y. Sintim, A.T. Adjesiwor, V.D. Zheljazkov, M. Anowarul Islam, A.K. Obour
Agronomy Journal
January 2016
Vol. 108, Issue 1, Pg. 294-300
doi.org/10.2134/agronj2015.0317

18-121-J Influence of nitrogen and sulfur application on camelina performance under dryland conditions
H.Y. Sintim, V.D. Zheljazkov, A.K. Obour, A.G. y Garcia, T.K. Foulke
Industrial Crops & Products
August 2015
Vol. 70, Pg. 253-259
doi.org/10.1016/j.indcrop.2015.03.062

18-122-J Hydrodistillation time affects dill seed essential oil yield, composition, and bioactivity
H.Y. Sintim, A. Burkhardt, A. Gawde, C.L. Cantrell, T. Astatkie, A.E. Obour, V.D. Zheljazkov, V. Schlege
Industrial Crops & Products
January 2015
Vol. 63, Pg. 190-196
doi.org/10.1016/j.indcrop.2014.09.058

18-131-J Soil nutrients status after fifty years of tillage and nitrogen fertilization
M.M. Mikha, A.K. Obour, J.D. Holman
Communications in Soil Science and Plant Analysis
July 2018
Vol. 49, Issue 16, Pg. 1953-1975
doi.org/10.1080/00103624.2018.1492599

18-163-J Seed yield and oil quality as affected by Camelina cultivar and planting date
E. Obeng, A.K. Obour, N.O. Nelson, J.A. Moreno, I.A. Ciampitti, D. Wang, T.P. Durrett
Journal of Crop Improvement
January 2019
Vol. 33, Issue 2, Pg. 202-222
doi.org/10.1080/15427528.2019.1566186

18-167-J High-polyphenol sorghum bran extract inhibits cancer cell growth through ROS induction, cell cycle arrest, and apoptosis
D. Smolensky, D. Rhodes, D.S. McVey, Z. Fawver, R. Perumal, T. Herald, L. Noronha
Journal of Medicinal Food
October 2018
Vol. 21, No. 10
doi.org/10.1089/jmf.2018.0008

18-191-J Evaluating grain sorghum hybrids for tolerance to iron chlorosis
A. Obour, A. Schlegel, R. Perumal, J. Holman, D. Ruiz Diaz
Journal of Plant Nutrition
January 2019
Vol. 42, Issue 4, Pg. 401-409
doi.org/10.1080/01904167.2018.1549677

18-198-J Tall wheatgrass and western wheatgrass for complementary cool-season forage systems
K. Harmoney, J. Jaeger
Crop, Forage, and Turfgrass Management
January 2019
Vol. 5, No. 1
doi:10.2134/cftm2018.08.0065

18-203-T Is ecotype difference in switchgrass a reflection of photosynthetic efficiency?
D.D. Serba, M.C. Saha, S. Rao Uppalapati
Atlas of Science
November 2017

18-215-S 2018 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
C.R. Thompson, D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1139
Kansas Agricultural Experiment Station

18-221-J Registration of six grain sorghum pollinator (R) lines
R. Perumal, T. Tesso, K.D. Kofoid, R.M. Aiken, P.V.V. Prasad, S.R. Bean, J.D. Wilson, T.J. Herald, C.R. Little
Journal of Plant Registration
December 2018
Vol. 13, No. 1, Pg. 113-117
doi:10.3198/jpr2017.12.0087crp

18-228-J Seeding rate and nitrogen application effects on oat forage yield and nutritive value
A.K. Obour, J.D. Holman, A.J. Schlegel
Journal of Plant Nutrition
May 2019
Vol. 42, Issue 13, Pg. 1452-1460
doi.org/10.1080/01904167.2019.1617311

18-278-S 2017 Kansas Performance Tests with Sunflower Hybrids, SRP1140
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-344-S 2018 Hays Roundup Research Report
Keith Harmoney and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 2
newprairiepress.org/kaesrr/vol4/iss2/

18-365-J Integrated aerial and destructive phenotyping differentiates chilling stress tolerance during early seedling growth in sorghum
A. Chiluwal, R. Bhemanahalli, R. Perumal, A.R. Asebedo, E. Bashir, A. Lamsal, D. Sebela, N.J. Shetty, S.V.K. Jagadish
Field Crops Research
October 2018
Vol. 227, Pg. 1-10
doi.org/10.1016/j.fcr.2018.07.011

18-372-J Differential germination characteristics of dicamba-resistant kochia (*Bassia scoparia*) populations in response to temperature
V. Kumar, P. Jha, C.A. Lim, P.W. Stahlman
Weed Science
November 2018
Vol. 66, Issue 6, Pg. 721-178
doi.org/10.1017/wsc.2018.54

18-373-J Genome comparison implies the role of Wsm2 in membrane trafficking and protein degradation
G. Zhang and Z. Hua
PeerJ
April 2018
Vol. 6
doi.org/10.7717/peerj.4678

18-384-J Great plains yucca (*Yucca glauca*) control on shortgrass rangelands
W.H. Fick, K. Harmoney
Weed Technology
November 2018
Vol. 33. Issue 1, Pg. 192-295
doi.org/10.1017/wet.2018.85

18-408-J Imputation accuracy of wheat genotyping-by-sequencing (GBS) data using barley and wheat genome references
H. Alipour, G. Bai, G. Zhang, M.R. Bihamta, V. Mohammadi, S.A. Peyghambari
PLoS ONE
January 2019
Vol. 14, Issue 1
doi.org/10.1371/journal.pone.0208614

18-490-B Agroclimatology of oats, barley and minor millets
M. Djanaguiraman, P.V.V. Prasad, Z.P. Stewart, R. Perumal, D. Min, I. Djalovic, I.A. Ciampitti
Agroclimatology Monograph
June 2018, Vol. 60, Ch. 10
doi.org/10.2134/agronmonogr60.2018.0020

18-503-J Soil physicochemical properties influenced by nitrogen sources and rates in the central Great Plains
M.M. Mikha, A.K. Obour, V. Kumar, P.W. Stahlman
Journal of Soil and Water Conservation
November 2019
Vol. 74, Issue 6, Pg. 584-593
doi.org/10.2489/jswc.74.6.584

18-519-J Glyphosate- and dicamba-resistant genes are not linked in Kochia (*Bassia scoparia*)
J. Ou, A.K. Fritz, P.W. Stahlman, R.S. Currie, M. Jugulam
Weed Science
December 2018
Vol. 67, Issue 1, Pg. 16-21
doi.org/10.1017/wsc.2018.78

18-621-J Herbicide-resistant kochia (*Bassia scoparia*) in North America: A review
V. Kumar, P. Jha, M. Jugulam, R. Yadav, P.W. Stahlman
Weed Science
January 2019
Vol. 67, Issue 1, Pg. 4-15
doi.org/10.1017/wsc.2018.72

18-628-S 2018 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 7
newprairiepress.org/kaesrr/vol4/iss7/

18-629-S 2018 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 5
newprairiepress.org/kaesrr/vol4/iss5/

19-022-S 2018 Kansas Performance Tests with Winter Wheat Varieties, SRP1143
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-032-S 2018 Southwest Research-Extension Center Research Report
B. Gillen and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 8
newprairiepress.org/kaesrr/vol4/iss8/

19-083-J Status of global pearl millet breeding programs and the way forward
D.D. Serba, R. Perumal, T.T. Tesso, D. Min
Crop Science
August 2017
Vol. 57, Issue 6, Pg. 2892-2905
doi.org/10.2135/cropsci2016.11.0936

19-100-S 2019 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1148
Kansas Agricultural Experiment Station

19-109-J Water deficit and heat stress induced alterations in grain physico-chemical characteristics and micronutrient composition in field grown grain sorghum
S.M. Impa, R. Perumal, S.R. Bean, V.S.J. Sunoj, S.V.K. Jagadish
Journal of Cereal Science
March 2019
Vol. 86, Pg. 124-131
doi.org/10.1016/j.jcs.2019.01.013

19-119-S 2018 Kansas Performance Tests with Corn Hybrids, SRP1145
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-121-J Genetic diversity, population structure, and linkage disequilibrium in pearl millet
D.D. Serba, K.T. Muleta, P. St. Anand, A. Bernando, G. Bai, R. Perumal, E. Bashir
The Plant Genome
November 2019
Vol. 12, Issue 3, Pg. 1-12
doi.org/10.3835/plantgenome2018.11.0091

19-127-J Moisture effects on robustness of sorghum grain protein near-infrared spectroscopy calibration
K.H.S. Peiris, S.R. Bean, A. Chiluwal, R. Perumal, S.V.K. Jagadish
Cereal Chemistry
July 2019
Vol. 96, Issue 4, Pg. 678-688
doi.org/10.1002/cche.10164

19-165-J Confirmation of 2,4-D resistance and identification of multiple resistance in a Kansas Palmer amaranth (*Amaranthus palmeri*) population
V. Kumar, R. Lui, G. Boyer, P.W. Stahlman
Pest Management Science
March 2019
Vol. 75, Issue 11, Pg. 2952-2933
doi.org/10.1002/ps.5400

19-166-J Nitrogen application effects on forage sorghum production and nitrate concentration
J.D. Holman, A.K. Obour, D.B. Mengel
Journal of Plant Nutrition
September 2019
Vol. 42, No. 20, Pg. 2794-2804
doi.org/10.1080/01904167.2019.1659321

19-192-J Climate zones determine where substantial increases of maize yields can be attained in Northeast China
Z. Liu, X. Yang, X. Lin, P. Gowda, S. Lv, J. Wang
Climate Change
August 2018
Vol. 149, Pg. 473-487
doi.org/10.1007/s10584-018-2243-x

19-205-S 2018 Kansas Performance Tests with Sunflower Hybrids, SRP1149
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-251-J Registration of 17 sorghum pollinator germplasm lines resistant to acetolactate synthase (ALS)-inhibitor herbicides
T. Tesso, D.D. Gobena, R. Perumal, S. Bean, J. Wilson, C. Little
Journal of Plant Registrations
March 2019
Vol. 13, Issue 2, Pg. 212-216
doi:10.3198/jpr2018.05.0032crg

19-317-S 2018 Forage Report
J. Holman, A. Obour, A. Esser, J. Lingenfelser, T. Roberts
Kansas Agricultural Experiment Station
Vol. 5, Issue 3
newprairiepress.org/kaesrr/vol5/iss3/

19-318-S 2019 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 4
newprairiepress.org/kaesrr/vol5/iss4/

13-319-S 2019 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 6
newprairiepress.org/kaesrr/vol5/iss6/

19-322-J Deterioration of ovary plays a key role in heat stress-induced spikelet sterility in sorghum
A. Chiluwal, R. Bheemanahalli, V. Kanaganahalli, D. Boyle, R. Perumal, M. Pokharel, H. Oumarou, S.V.K. Jagadish
Plant, Cell & Environment
November 2019
Vol. 43, Issue 2, Pg. 448-462
doi.org/10.1111/pce.13673

19-323-J Differential sensitivity of Kansas Palmer amaranth populations to multiple herbicides
V. Kumar, R. Liu, P.W. Stahlman
Agronomy Journal
February 2020
Vol. 112, Issue 3, Pg. 2152-2163
doi.org/10.1002/agj2.20178

Agronomy

16-012-J Irrigation impacts on minimum and maximum surface moist enthalpy in the Central Great Plains of the USA
T. Zhang, R. Mahmood, X. Lin, R. Pielke Sr.
Weather and Climate Extremes
March 2019
Vol. 23
doi.org/10.1016/j.wace.2019.100197

16-067-J Root anatomical traits of wild-rices reveal links between flooded rice and dryland sorghum
R. Bheemanahalli, S. Hechanova, J.K. Kshirod, S.V.K. Jagadish
Plant Physiology Reports
July 2019
Vol. 24, Pg. 155-167

16-188-B Climate change influence on herbicide efficacy and weed management
M. Jugulam, A. Varanasi, V.K. Varanasi, P.V.V. Prasad
Food Security and Climate Change
November 2018
doi.org/10.1002/9781119180661.ch18

16-274-J Water quality assessment in the Cherry Creek watershed: Patterns of nutrient runoff in an agricultural watershed
V.J. Alarcon, G.F. Sassenrath
Journal of Soil and Water Conservation
May 2018
Vol. 73, Issue 3, Pg. 229-246
doi.org/10.2489/jswc.73.3.229

17-001-J Genome-wide association analysis on pre-harvest sprouting resistance and grain color in U.S. winter wheat
M. Lin, D. Zhang, S. Liu, G. Zhang, J. Yu, A.K. Fritz, G. Bai
BMC Genomics
October 2016
Vol. 17, Article No. 794
doi.org/10.1186/s12864-016-3148-6

17-002-J Quantitative trait loci for slow-rusting resistance to leaf rust in doubled- haploid wheat population CI13227 × Lakin
Y. Lu, R.L. Bowden, G. Zhang, X. Xu, A. Fritz, G. Bai
Phytopathology
August 2017
Vol. 107, No. 11
doi.org/10.1094/PHYTO-09-16-0347-R

17-003-J Multiple minor QTLs are responsible for Fusarium head blight resistance in Chinese wheat landrace Haiyanzhong
J. Cai, S. Wang, T. Li, G. Zhang, G. Bai
Plos One
September 2016
doi.org/10.1371/journal.pone.0163292

17-023-J Rapid detoxification via glutathione S-transferase (GST) conjugation confers a high level of atrazine resistance in Palmer amaranth (*Amaranthus palmeri*)
S. Nakka, A.S. Godar, C.R. Thompson, D.E. Peterson, M. Jugulama
Pest Management Science
May 2017
Vol. 73, Issue 11, Pg. 2236-2243
doi.org/10.1002/ps.4615

17-041-J Patch-burning on tall-grass native prairie does not negatively affect stocker performance or pasture composition
J.K. Farney, C.B. Rensink, W.H. Fick, D. Shoup, G.A. Miliken
The Professional Animal Scientist
October 2017
Vol. 33, Issue 5, Pg. 549-554
doi.org/10.15232/pas.2016-01574

17-108-J Glycolipid ranking of bread quality hard wheat breeding stock cultivars by tandem mass spectrometry of total lipid extract
M.D. Boatwright, A.K. Fritz, D.L. Wetzel
Cereal Research Communications
February 2017
Vol. 45, Issue 1, Pg. 139-145
doi.org/10.1556/0806.45.2017.001

17-160-J Observational evidence of temperature trends at two levels in the surface layer
X. Lin, R. A. Pielke, R. Mahmood, C.A. Fiebrich, R. Aiken
Atmospheric Chemistry and Physics
January 2016
Vol. 16, Issue 2
doi.org/10.5194/acp-16-827-2016

17-161-J Maize yield gaps caused by non-controllable, agronomic, and socioeconomic factors in a changing climate of Northeast China
Z. Liu, X. Yang, X. Lin, K.G. Hubbard, S. Lv, J. Wang
Science of the Total Environment
January 2016
Vol. 541, Pg. 756-764
doi.org/10.1016/j.scitotenv.2015.08.145

17-162-J Narrowing the agronomic yield gaps of maize by improved soil, cultivar and agricultural management practices in different climate zones of Northeast China
Z. Liu, X. Yang, X. Lin, K.G. Hubbard, S. Lv, J. Wang
Earth Interactions
April 2016
Vol. 20, Issue 12
doi.org/10.1175/EI-D-15-0032.1

17-170-J Winter cover crops influence weed establishment and nitrogen supply to maize
H.A. González Villalba, D.A. Ruiz Diaz, E.L. Schoninger, C.A. Leguizamon Rojas
Investigación Agraria
2018
Vol. 20, No. 2
dx.doi.org/10.18004/investig.agrar.2018.diciembre.100-109

17-173-J Single nucleotide polymorphism tightly linked to a major QTL on chromosome 7A for both kernel length and kernel weight in wheat
Z. Su, S. Jin, Y. Lu, G. Zhang, S. Chao, G. Bai
Molecular Breeding
February 2016
Vol. 36, Article No. 15
doi.org/10.1007/s11032-016-0436-4

17-179-J Deep banding increases phosphorus removal by soybean grown under no-tillage production systems
F.D. Hansel, D.A. Ruiz Diaz, T.J.C. Amado, L.H.M. Rosso
Agronomy Journal
May 2017
Vol. 109, No. 3, Pg. 1091-1098
doi:10.2134/agronj2016.09.0533

17-184-J Evaluating heat tolerance of a complete set of wheat-*Aegilops geniculata* chromosome addition lines
A. Green, B. Friebe, P.V.V. Prasad, A.K. Fritz
Journal of Agronomy and Crop Science
April 2018
Vol. 204, Issue 6
doi.org/10.1111/jac.12282

17-193-J Mapping of quantitative trait loci for leaf rust resistance in the wheat population Ning7840 × Clark
C. Li, Z. Wang, C. Li, R. Bowden, G. Bai, C. Li, C. Li, Z. Su, B.F. Carver
Plant Disease
October 2017, Vol. 101, No. 12
doi.org/10.1094/PDIS-12-16-1743-RE

17-228-J Long-term tillage on yield and water use of grain sorghum and winter wheat
A.J. Schlegel, Y. Assefa, L.A. Haag, C.R. Thompson, L.R. Stone
Agronomy Journal
January 2018
Vol. 110, Issue 1, Pg. 269-280
doi.org/10.2134/agronj2017.02.0104

17-270-J Community-based grazing marketing: Barriers and benefits related to the adoption of best managment practices in grazing systems
A.E.H. King, L.M. Baker, P.J. Tomlinson
Journal of Applied Communications
2017
Vol. 101, Issue 1
doi.org/10.4148/1051-0834.1013

17-275-J Steer and pasture productivity influenced by intensive early stocking plus late season grazing
C.E. Owensby, L.M. Auen
Crop, Forage and Turfgrass Management
January 2018
Vol. 4, No. 1
doi:10.2134/cftm2017.02.0011

17-286-J Grain sorghum response to nitrogen fertilizer following cover crops
G. Preza Fontes, P.J. Tomlinson, K. Roozeboom, D. Ruiz Diaz
Agronomy Journal
November 2017
Vol. 109, Issue 6, Pg. 2723-2737
doi.org/10.2134/agronj2017.03.0180

17-287-J Genotyping-by-sequencing (GBS) revealed molecular genetic diversity of Iranian wheat landraces and cultivars
H.A. Pour, M.R. Bihamta, V. Mohammadi, S.A. Peyghambari, G. Bai, Z. Zhang
Frontiers in Plant Science
August 2017
doi.org/10.3389/fpls.2017.01293

17-327-J Kansas trends and changes in temperature, precipitation, drought, and frost-free days from the 1890s to 2015
X. Lin, J. Harrington, I. Ciampitti, P. Gowda, D. Brown, I. Kisekka
Journal of Contemporary Water Research and Education
December 2017
Vol. 162, Issue 1
doi.org/10.1111/j.1936-704X.2017.03257.x

17-328-J Crop water production functions of grain sorghum and winter wheat in Kansas and Texas
J.T. Moberly, R.M. Aiken, X. Lin, A.J. Schlegel, R.L. Baumhardt, R.C. Schwartz
Journal of Contemporary Water Research and Education
December 2017
Vol. 162, Issue 1
doi.org/10.1111/j.1936-704X.2017.03259.x

17-389-J Improving gene regulatory network inference by incorporating rates of transcriptal changes
J. Desai, R.C. Sartor, L.M. Lawas, S.V.K. Jagadish, C.J. Doherty
Scientific Reports
December 2017
Vol. 7, Article No. 17244
doi.org/10.1038/s41598-017-17143-1

18-008-J Planter technology to reduce double-planted area and improve corn and soybean yields
G.M. Corassa, T.J.C. Amado, T. Liska, A. Sharda, J. Fulton, I.A. Ciampitti
Agronomy Journal
January 2018
Vol. 110, Issue 1, Pg. 300-310
doi.org/10.2134/agronj2017.07.0380

18-012-J Dryland corn and grain sorghum yield response to available soil water at planting
A.J. Schlegel, F.R. Lamm, Y. Assefa, L.R. Stone
Agronomy Journal
January 2018
Vol. 110, Issue 1, Pg. 236-245
doi.org/10.2134/agronj2017.07.0398

18-015-J Disaggregating sorghum yield reductions under warming scenarios exposes narrow genetic diversity in US breeding programs
J. Tack, J. Lingenfelser, S.V.K. Jagadish
Proceedings of the National Academy of Sciences
August 2017, Vol. 114, No. 35
doi.org/10.1073/pnas.1706383114

18-016-J Sustainable production of microbial lipids from lignocellulosic biomass using oleaginous yeast cultures
J.-E. Lee, P.V. Vadlani, D. Min
Journal of Sustainable Bioenergy Systems
March 2017
Vol. 7, Pg. 36-50
doi: 10.4236/jsbs.2017.71004

18-018-S 2017 Kansas Performance Tests with Winter Wheat Varieties, SRP1135
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-021-J An open-source laboratory manual for introductory, undergraduate soil science courses
C.J. Moorberg, D.A. Crouse
Natural Sciences Education
August 2017
Vol. 46, Issue 1, Pg. 1-8
doi.org/10.4195/nse2017.06.0013

18-033-A Winter wheat yield responses to climate variation in the U.S. Central Great Plains
R.M. Aiken, X. Lin, Z.T. Zambreski
2017 ASABE Annual International Meeting
doi:10.13031/aim.201701661

18-034-J QTL mapping of pre-harvest sprouting resistance in a white wheat cultivar Danby
M. Shao, G. Bai, T.W. Rife, J. Poland, M. Lin, S. Liu, H. Chen, T. Kumssa, A. Fritz, H. Trick, Y. Li, G. Zhang
Theoretical and Applied Genetics
June 2018
Vol. 131, Vol. 8, Pg. 1683-1697
doi.org/10.1007/s00122-018-3107-5

18-035-J Production of free fatty acids from switchgrass using recombinant *Escherichia coli*
J.-E. Lee, P.V. Vadlani, Y.N. Guragain, K.-Y. San, D.-H. Min
Biotechnology Progress
January 2018
Vol. 34, Issue 1, Pg. 91-98
doi.org/10.1002/btpr.2569

18-072-B Surveillance and monitoring of weed populations
J.A. Dille
Integrated weed management for sustainable agriculture
2017
Ch. 6, ISBN: 978 1 78676 164 4

18-073-J Forecasting maize yield at field scale based in high-resolution satellite imagery
R. Schwalbert, T.J.C. Amado, L. Nieto, S. Varela, G.M. Corassa, T.A N. Horbe, C.W. Rice, N.R. Peralta, I.A. Ciampitti
Biosystems Engineering
July 2018
Vol. 171, Pg. 179-192
doi.org/10.1016/j.biosystemseng.2018.04.020

18-074-J Understanding N timing in corn yield and fertilizer N recovery: An insight from an isotopic labeled-N determination
S.M. de Oliveira, R.E. Munhoz de Almeida, I.A. Ciampitti, C. Pierozan Junior, B.C. Lago, P.C. Ocheuze Trivelin, J.L. Favarin
PLOS ONE
February 2018
doi.org/10.1371/journal.pone.0192776

18-078-J Development of a complete set of wheat-barley group-7 Robertsonian translocation chromosomes conferring an increased content of fl-glucan
T.V. Danilova, B. Friebe, B.S. Gill, J. Poland, E. Jackson
Theoretical and Applied Genetics
November 2017
Vol. 131, Pg. 377-388
doi.org/10.1007/s00122-017-3008-z

18-093-J Communicating climate change: A qualitative study exploring how communicators and educators are approaching climate-change discussions
K. Rohling, C. Wandersee, L.M. Baker, P. Tomlinson
Journal of Applied Communications
2017
Vol. 100, Issue 3
doi.org/10.4148/1051-0834.1232

18-095-S 2017 Southwest Research-Extension Center Research Report
B. Gillen and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 5
newprairiepress.org/kaesrr/vol3/iss5/

18-102-J Sources, distribution, bioavailability, toxicity, and risk assessment of heavy metal(loid)s in complementary medicines
S. Bolan, A. Kunhikrishnan, B. Seshadri, G. Choppala, R. Naidu, N.S. Bolan, Y.S. Ok, M. Zhang, C.-G. Li, F. Li, B. Noller, M.B. Kirkham
Environment International
November 2017
Vol. 108, Pg. 103-118
doi.org/10.1016/j.envint.2017.08.005

18-103-B Spoil to soil: Mine site rehabilitation and revegetation
N.S. Bolan, M.B. Kirkham, Y.S. Ok
Publisher: CRC Press, Taylor & Francis Group
2018
ISBN 9781498767613

18-111-J Silencing of OsGRXS17 in rice improves drought stress tolerance by modulating ROS accumulation and stomal closure
Y. Hu, Q. Wu, Z. Peng, S.A. Sprague, W. Wang, J. Park, E. Akhunov, K.S.V. Jagadish, P.A. Nakata, N. Cheng, K.D. Hirschi, F.F. White, S. Park
Scientific Reports
November 2017, Article No. 15950
doi.org/10.1038/s41598-017-16230-7

18-125-J Maize yield and planting date relationship: A synthesis-analysis for US high-yielding contest winner and field research data
N.V. Long, Y. Assefa, R. Schwalbert, I.A. Ciampitti
Frontiers in Plant Sciences
December 2017
Vol. 8, Article No. 2106
doi.org/10.3389/fpls.2017.02106

18-127-J Alterations in wheat pollen lipidome during high day and night temperature stress
S. Narayanan, P.V.V. Prasad, R. Welti
Plant, Cell & Environment
January 2018
Vol. 41, Issue 8, Pg. 1749-1761
doi.org/10.1111/pce.13156

18-128-B Soils Laboratory Manual, K-State Edition
C.J. Moorberg, D.A. Crouse
New Prairie Press, 2017
https://newprairiepress.org/ebooks/15/

18-131-J Soil nutrients status after fifty years of tillage and nitrogen fertilization
M.M. Mikha, A.K. Obour, J.D. Holman
Communications in Soil Science and Plant Analysis
July 2018
Vol. 49, Issue 16, Pg. 1953-1975
doi.org/10.1080/00103624.2018.1492599

18-135-B Drought and high temperature stress and traits associated with tolerance
P.V.V. Prasad, M. Djanaguiraman, S.V.K. Jagadish, I.A. Ciampitti
Sorghum: A State of the Art and Future Perspectives
January 2019, Vol. 58
doi.org/10.2134/agronmonogr58.c11

18-136-J Reproductive fitness in common bean (*Phaseolus vulgaris* L.) under drought stress is associated with root length and volume
P.A. Sofi, M. Djanaguiraman, K.H.M. Siddique, P.V.V. Prasad
Indian Journal of Plant Physiology
December 2018
Vol. 23, Pg. 796-809
doi.org/10.1007/s40502-018-0429-x

18-137-J Root length and root lipid composition contribute to drought tolerance of winter and spring wheat
M. Djanaguiraman, P.V.V. Prasad, J. Kumari, Z. Rengel
Plant and Soil, September 2018
Article No. 439, Pg. 57-73
doi.org/10.1007/s11104-018-3794-3

18-138-J High-temperature stress alleviation by selenium nanoparticle treatment in grain sorghum
M. Djanaguiraman, N. Belliraj, S.H. Bossmann, P.V.V. Prasad
ACS Omega, March 2018
Vol. 3, Issue 3, Pg. 2497-2491
doi.org/10.1021/acsomega.7b01934

18-139-J Seed treatment with nano-iron (III) oxide enhances germination, seeding growth and salinity tolerance of sorghum
H.F. Maswada, M. Djanaguiraman, P.V.V. Prasad
Journal of Agronomy and Crop Science
March 2018
Vol. 204, Issue 6, Pg. 577-587
doi.org/10.1111/jac.12280

18-140-J Response of photosynthetic performance, water relations and osmotic adjustment to salinity acclimation in two wheat cultivars
H.F. Maswada, M. Djanaguiraman, P.V.V. Prasad
Acta Physiologiae Plantarum
May 2018
Vol. 40, Article No. 105
doi.org/10.1007/s11738-018-2684-x

18-141-B Growth, development and physiology of grain and sorghum
M. Djanaguiraman, P.V.V. Prasad, I.A. Ciampitti
Burleigh Dodds Science Publishing
April 2018
Achieving sustainable cultivation of sorghum. Vol. 2: Sorghum utilisation around the world
https://shop.bdspublishing.com/store/bds/detail/product/3-190-9781838795306

18-143-J Grain sorghum production functions under different irrigation capacities
A. Araya, I. Kisekka, P.H. Gowda, P.V.V. Prasad
Agricultural Water Management
April 2018
Vol. 203, Pg. 261-271
doi.org/10.1016/j.agwat.2018.03.010

18-144-S 2016 National Winter Canola Variety Trial
Coordinating authors M. Stamm and S. Dooley, multiple co-authors
SRP1134
Kansas Agricultural Experiment Station

18-148-J Phosphorus dynamics near bald cypress roots in a restored wetland
C.J. Moorberg, M.J. Vepraskas, C.P. Niewoehner
Soil Science Society of America Journal
December 2017
Vol. 81, Issue 6, Pg. 1652-1660
doi: 10.2136/sssaj2017.07.0228

18-149-J Prominent winter wheat varieties response to post-flowering heat stress under controlled chambers and field based heat tents
B. Bergkamp, S.M. Impa, A.R. Asebedo, A.K. Fritz, S.V.K. Jagadish
Field Crops Research
June 2018
Vol. 222, Pg. 143-152
doi.org/10.1016/j.fcr.2018.03.009

18-154-J Increased chalcone synthase (CHS) expression is associated with dicamba resistance in *Kochia scoparia*
D.J. Pettinga, J. Ou, E.L. Patterson, M. Jugulam, P. Westra, T.A. Gaines
Pest Management Science
October 2018
Vol. 74, Issue 10, Pg. 2306-2315
doi.org/10.1002/ps.4778

18-155-J Weed resistance to synthetic auxin herbicides
R. Busi, D.E. Goggin, I.M. Heap, M.J. Horak, M. Jugulam, R.A. Masterse, R.M. Napier, D.S. Riar, N.M. Satchivi, J. Torra, P. Westra, T.R. Wright
Pest Management Science
December 2017
Vol. 74, Issue 10, Pg. 2265-2276
doi.org/10.1002/ps.4823

18-156-J Multiple resistance to glyphosate, paraquat and ACCase-inhibiting herbicides in Italian ryegrass populations from California: Confirmation and mechanisms of resistance
P. Tehranchian, V. Nandula, M. Jugulam, K. Putta, M. Jasieniuk
Pest Management Science
October 2017
Vol. 74, Issue 4, Pg. 868-877
doi.org/10.1002/ps.4774

18-161-J Factors affecting model sensitivity and uncertainty: Application to an irrigation scheduler
A.C. Linhoss, M.L. Tagert, H. Buka, G. Sassenrath
Transactions of the ASABE
February 2017
Vol. 60, Issue 3, Pg. 803-312
doi: 10.13031/trans.11912

18-163-J Seed yield and oil quality as affected by Camelina cultivar and planting date
E. Obeng, A.K. Obour, N.O. Nelson, J.A. Moreno, I.A. Ciampitti, D. Wang, T.P. Durrett
Journal of Crop Improvement
January 2019
Vol. 33, Issue 2, Pg. 202-222
doi.org/10.1080/15427528.2019.1566186

18-164-J Productivity of lactating dairy cows fed diets with teff hay as the sole forage
B.A. Saylor, D.H. Min, B.J. Bradford
Journal of Dairy Science
July 2018
Vol. 101, Issue 7, Pg. 5984-5990
doi.org/10.3168/jds.2017-14118

18-181-J Application of synchrotron radiation-based methods for environmental biogeochemistry: Introduction to the special section
G.M. Hettiarachchi, E. Donner, E. Doelsch
Journal of Environmental Quality
November 2017
Vol. 46, Issue 6, Pg. 1139-1145
doi.org/10.2134/jeq2017.09.0349

18-182-J Charcoal rot and Fusarium stalk rot diseases influence sweet sorghum sugar attributes
Y.M.A.Y. Bandara, T.T. Tesso, K. Zhang, D. Wang, C.R. Little
Industrial Crops and Products
February 2018
Vol. 112, Pg. 188-195
doi.org/10.1016/j.indcrop.2017.11.012

18-189-J Extrachromosomal circular DNA-based amplification and transmission of herbicide resistance in crop weed *Amaranthus palmeri*
D.-H. Koo, W.T. Molin, C.A. Saski, J. Jiang, K. Putta, M. Jugulam, B. Friebe, B.S. Gill
PNAS
March 2018
Vol. 115, Issue 13, Pg. 3332-3337
doi.org/10.1073/pnas.1719354115

18-191-J Evaluating grain sorghum hybrids for tolerance to iron chlorosis
A. Obour, A. Schlegel, R. Perumal, J. Holman, D. Ruiz Diaz
Journal of Plant Nutrition
January 2019
Vol. 42, Issue 4, Pg. 401-409
doi.org/10.1080/01904167.2018.1549677

18-201-J Benefits and profitability of fluopyram-amended seed treatments for suppressing sudden death syndrome and protecting soybean yield: A meta-analysis
Y.R. Kandel, M.T. McCarville, E.A. Adee, J.P. Bond, M.I. Chilvers, S.P. Conley, L.J. Geisler, H.M. Kelly, D.K. Malvivk, F.M. Mathew, J.C. Rupe, L.E. Sweets, A.U. Tenuta, K.A. Wise, D.S. Mueller
Plant Disease
March 2018, Vol. 102, No. 6
doi.org/10.1094/PDIS-10-17-1540-RE

18-204-J Forage mass production, forage nutrient value, and cost comparisons of three-way cover crop mixes
J.K. Farney, G.F. Sassenrath, C.J. Davis, D. Presley
Crops, Forage, and Turfgrass Management
August 2018, Vol. 4, Issue 1
doi.org/10.2134/cftm2017.11.0081

18-205-J Trace element dynamics of biosolids-derived microbeads
H. Wijesekara, N.S. Bolan, L. Bradney, N. Obadamudalige, B. Seshadri, A. Kunhikrishnan, R. Dharmarajan, Y.S. Ok, J. Rinklebe, M.B. Kirkham, M. Vithanage
Chemosphere
May 2018
Vol. 199, Pg. 331-339
doi.org/10.1016/j.chemosphere.2018.01.166

18-211-J Development and validation of diagnostic markers for Fhb1 region, a major QTL for Fusarium head blight resistance in wheat
Z. Su, S. Jin, D. Zhang, and G. Bai
Theoretical and Applied Genetics
August 2018
Vol. 131, Pg. 2371-2380
doi.org/10.1007/s00122-018-3159-6

18-215-S 2018 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
C.R. Thompson, D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1139
Kansas Agricultural Experiment Station

18-218-S 2017 Kansas Performance Tests with Corn Hybrids, SRP1136
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-219-J Extrapolation of a structural equation model for digital soil mapping
M.E. Angelini, B. Kempen, G.B.M. Heuvelink, A.J.A.M. Temme, M.D. Ransom
Geoderma
May 2020, Vol. 367, 114226
doi.org/10.1016/j.geoderma.2020.114226

18-222-J Agronomic practices for reducing wheat yield gaps: A quantitative appraisal for progressive producers
R.P. Lollato, D.A. Ruiz Diaz, E. DeWolf, M. Knapp, D.E. Peterson, A.K. Fritz
Crop Science
January 2019, Vol. 59, Issue 1
doi.org/10.2135/cropsci2018.04.0249

18-223-J A systems-level yield gap assessment of maize-soybean rotation under high- and low-management inputs in the Western US Corn Belt using APSIM
G.R. Balboa, S.V. Archontoulis, F. Salvagiotti, F.O. Garcia, W.M. Stewart, E. Francisco, P.V.V. Prasad, I.A. Ciampitti
Agricultural Systems
August 2019
Vol. 174, Pg. 145-154
doi.org/10.1016/j.agsy.2019.04.008

18-227-S 2017 Kansas Performance Tests with Soybean Varieties, SRP1137
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-231-J Comparing methane emissions estimated using a backward-Lagrangian stochastic model and the eddy covariance technique in a beef cattle feedlot
P. Prajapati, E.A. Santos
Agricultural and Forest Meteorology
June 2018
Vol. 256-257, Pg. 482-491
doi.org/10.1016/j.agrformet.2018.04.003

18-235-S 2017 Kansas Performance Test with Grain Sorghum Hybrids, SRP1138
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-239-J Identification of hydroclimate subregions for seasonal drought monitoring in the U.S. Great Plains
Z.T. Zambreski, X. Lin, R.M. Aiken, G.J. Kluitenberg, R.A. Pielke Sr
Journal of Hydrology
December 2018
Vol. 567, Pg. 370-381
doi.org/10.1016/j.jhydrol.2018.10.013

18-244-J Iron oxides minimize arsenic mobility in a soil material saturated with saline wastewater
M.B. Galkaduwa, G.M. Hettiarachchi, G.J. Kluitenberg, S.L. Hutchinson
Journal of Environmental Quality
July 2018
Vol. 47, Issue 4, Pg. 873-883
doi.org/10.2134/jeq2018.01.0022

18-245-J Subsurface submergence of mine waste materials as a remediation strategy to reduce metal mobility: An overview
R.R. Karna, G.M. Hettiarachchi
Current Pollution Report
February 2018
Vol. 4, Pg. 35-48
doi.org/10.1007/s40726-018-0078-8

18-246-J Reactions of phosphorus fertilizers with and without a fertilizer enhancer in three acidic soils with high phosphorus-fixing capacity
J. Pierzynski, G.M. Hettiarachchi
Soil Science Society of America Journal
September 2018
Vol. 82, Issue 5, Pg. 1124-1139
doi.org/10.2136/sssaj2018.01.0064

18-247-J Quantifying the impact of heat stress on pollen germination, seed-set and grain-filling in spring wheat
R. Bheemanahalli, V.S.J. Sunoj, G. Saripalli, P.V.V. Prasad, H.S. Balyan, P.K. Gupta, N. Grant, K.S. Gill, S.V.K. Jagadish
Crop Science
March 2019
Vol. 59, Issue 2, Pg. 684-696
doi.org/10.2135/cropsci2018.05.0292

18-252-J Impact of nitrogen application rate on switchgrass yield, production costs, and nitrous oxide emissions
A. McGowan, D.H. Min, J. Williams, C. Rice
Journal of Environmental Quality
March 2018
Vol. 47, Issue 2, Pg. 228-237
doi.org/10.2134/jeq2017.06.0226

18-255-J Reproductive success of soybean (*Glycine max* L. Merril) cultivars and exotic lines under high daytime temperature
M. Djanaguiraman, W.T. Schapaugh, F.B. Fritschi, H.T. Nguyen, P.V.V. Prasad
Plant, Cell & Environment
August 2018
Vol. 42, Issue 1, Pg. 321-336
doi.org/10.1111/pce.13421

18-278-S 2017 Kansas Performance Tests with Sunflower Hybrids, SRP1140
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-293-J Nitrogen management strategies to improve yield and dough properties in hard red spring wheat
G.M. Corassa, F.D. Hansel, R. Lollato, J.L.F. Pires, R. Schwalbert, T.J.C. Amado, E.M. Guarienti, R. Gaviraghi, M.B. Bisognin, G.B. Reimche, A.L. Santi, I.A. Ciampitti
Agronomy Journal
November 2018
Vol. 110, Issue 6, Pg. 2417-2429
doi.org/10.2134/agronj2018.02.0075

18-296-J Yield and water productivity of winter wheat under various irrigation capacities
A. Araya, P.V.V. Prasad, P.H. Gowda, I. Kisekka, A.J. Foster
Journal of the American Water Resources Association
January 2019
Vol. 55, Issue 1, Pg. 24-37
doi.org/10.1111/1752-1688.12721

18-297-J Wheat resistance to Fusarium head blight
G. Bai, Z. Su, J. Cai
Canadian Journal of Plant Pathology
June 2018
Vol. 40, Issue 3, Pg. 336-346
doi.org/10.1080/07060661.2018.1476411

18-306-B Crop management practices for sorghum: An overview
D. Maduraimuthu, P.V.V. Prasad, I.A. Ciampitti
Achieving sustainable cultivation of sorghum
July 2018
Vol. 1, Pg. 285-302
doi: 10.19103/AS.2017.0015.13

18-309-J Early-season stand count determination in corn via integration of imagery from unmanned aerial systems (UAS) and supervised learning techniques
S. Varela, P. Reddy Dhodda, W.H. Hsu, P.V.V. Prasad, Y. Assefa, N.R. Peralta, T. Griffin, A. Sharda, A. Ferguson, I.A. Ciampitti
Remote Sensing
February 2018, Vol. 10, Issue 2
doi.org/10.3390/rs10020343

18-310-S 2018 Cattlemen's Day Research Report
E.A. Boyle and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 1
newprairiepress.org/kaesrr/vol4/iss1/

18-321-J The necrotrophic fungus *Macrophomina phaseolina* promotes charcoal rot susceptibility in grain sorghum through induced host cell-wall-degrading enzymes
Y.M.A.Y. Bandara, D.K. Weerasooriya, S. Liu, C.R. Little
Biochemistry and Cell Biology
June 2018, Vol. 108, No. 8
doi.org/10.1094/PHYTO-12-17-0404-R

18-325-J Molecular mechanisms of combined heat and drought stress resilience in cereals
L.M.F. Lawas, E. Zuther, S.V.K. Jagadish, D.K. Hincha
Current Opinion in Plant Biology
October 2018
Vol. 45, Part B, Pg. 212-217
doi.org/10.1016/j.pbi.2018.04.002

18-335-J Reduced translocation of glyphosate and dicamba in combination contributes to poor control of *Kochia scoparia*: Evidence of herbicide antagonism
J. Ou, C.R. Thompson, P.W. Stahlman, N. Bloedow, M. Jugulam
Scientific Reports
March 2018
Vol. 8, Article No. 5330
doi.org/10.1038/s41598-018-23742-3

18-338-J Yield and overall productivity under long-term wheat-based crop rotations: 2000 through 2016
A.J. Schlegel, Y. Assefa, L.A. Haag, C.R. Thompson, L.R. Stone
Agronomy Journal
January 2019
Vol. 111, Issue 1, Pg. 264-274
doi.org/10.2134/agronj2018.03.0171

18-343-S 2017 National Winter Canola Variety Trial
Coordinating authors M. Stamm and S. Dooley, multiple co-authors
SRP1141
Kansas Agricultural Experiment Station

18-345-S 2018 Southeast Agricultural Research Center Agricultural Research Report
L. Lomas and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 3
newprairiepress.org/kaesrr/vol4/iss3/

18-350-J Effects of TaPHS1 and TaMKK3-A genes on wheat pre-harvest sprouting resistance
M. Lin, S. Liu, G. Zhang, G. Bai
Agronomy
September 2018, Vol. 8, Issue 10
doi.org/10.3390/agronomy8100210

18-351-J Development of single nucleotide polymorphism markers for the wheat curl mite resistance gene Cmc4
J. Zhao, N.R. Abdelsalam, L. Khalaf, W.-P. Chuang, L. Zhao, C. M. Smith, B. Carver, G. Bai
Crop Science
July 2019
Vol. 59, Issue 4, Pg. 1567-1575
doi:10.2135/cropsci2018.11.0695

18-359-J Composition, forage production, and costs are variable in three-way cover crop mixes as a fall forage
J.K. Farney, G.F. Sassenrath, C.J. Davis, D. Presley
Crops, Forage, and Turfgrass Management
December 2018, Vol. 4, No. 1
doi:10.2134/cftm2018.03.0020

18-365-J Integrated aerial and destructive phenotyping differentiates chilling stress tolerance during early seedling growth in sorghum
A. Chiluwal, R. Bhemanahalli, R. Perumal, A.R. Asebedo, E. Bashir, A. Lamsal, D. Sebela, N.J. Shetty, S.V.K. Jagadish
Field Crops Research
October 2018
Vol. 227, Pg. 1-10
doi.org/10.1016/j.fcr.2018.07.011

18-370-J Prevalence and mechanism of atrazine resistance in waterhemp (*Amaranthus tuberculatus*) from Nebraska
A.R. Vennapusa, F. Faleco, B. Vieira, S. Samuelson, G.R. Kruger, R. Werle, M. Jugulam
Weed Science
September 2018
Vol. 66, Issue 5, Pg. 595-602
doi.org/10.1017/wsc.2018.38

18-372-J Differential germination characteristics of dicamba-resistant kochia (*Bassia scoparia*) populations in response to temperature
V. Kumar, P. Jha, C.A. Lim, P.W. Stahlman
Weed Science
November 2018
Vol. 66, Issue 6, Pg. 721-178
doi.org/10.1017/wsc.2018.54

18-375-J Grassland bird and butterfly responses to sericea lespedeza control via late-season grazing pressure
S. Ogden, D. A. Haukos, K.C. Olson, J. Lemmon, J. Alexander, G. Gatson, W. Fick
The American Midland Naturalist
May 2019
Vol. 181, Issue 2, Pg. 147-169
doi.org/10.1674/0003-0031-181.2.147

18-376-S 2017 Kansas Summer Annual Forage Hay and Silage Variety Trial
J. Holman, A. Obour, A. Esser, J. Lingenfelser, S. Maxwell, T. Roberts, G.F. Sassenrath
Kansas Agricultural Experiment Station
Vol. 4, Issue 4
newprairiepress.org/kaesrr/vol4/iss4/1/

18-377-J Community water management to intensify agricultural productivity in the polders of the coastal zone of Bangladesh
S. Yadav, M.K. Mondal, A. Shew, S.V.K. Jagadish, Z.H. Khan, A. Sutradhar, H. Bhandari, E. Humphreys, J. Bhattacharya, R. Parvin, M. Rahman, P. Chandna
Paddy and Water Environment
December 2019
Vol. 18, Pg. 331-343
doi.org/10.1007/s10333-019-00785-4

18-381-J Optimum soybean seeding rates by yield environment in southern Brazil
G.M. Corassa, T.J C. Amado, M.L. Strieder, R. Schwalbert, J.L.F. Pires, P.R. Carter, I.A. Ciampitti
Agronomy Journal
November 2018
Vol. 110, Issue 6, Pg. 2430-2438
doi.org/10.2134/agronj2018.04.0239

18-384-J Great plains yucca (*Yucca glauca*) control on shortgrass rangelands
W.H. Fick, K. Harmoney
Weed Technology
November 2018
Vol. 33. Issue 1, Pg. 192-295
doi.org/10.1017/wet.2018.85

18-394-J Exploring nitrogen limitation for historical and modern soybean genotypes
O.A. Ortez, F. Salvagiotti, J. Enrico, P.V.V. Prasad, P. Armstrong, I.A. Ciampitti
Agronomy Journal
September 2018
Vol. 110, Issue 5, Pg. 2080-2090
doi.org/10.2134/agronj2018.04.0271

18-406-B Agroclimatology of maize, sorghum, and pearl millet
P.V.V. Prasad, M. Djanaguiraman, Z.P. Stewart, I.A. Ciampitti
Agroclimatology: Linking Agriculture to Climate
June 2018, Vol. 60, Ch. 10
doi.org/10.2134/agronmonogr60.2016.0005

18-408-J Imputation accuracy of wheat genotyping-by-sequencing (GBS) data using barley and wheat genome references
H. Alipour, G. Bai, G. Zhang, M.R. Bihamta, V. Mohammadi, S.A. Peyghambari
PLoS ONE
January 2019, Vol. 14, Issue 1
doi.org/10.1371/journal.pone.0208614

18-409-B Sorghum diseases and their management in cultivation: seedling, seed, panicle and foliar diseases
C.R. Little, A.Y. Bandara, and R. Perumal
Achieving sustainable cultivation of sorghum
July 2018, Vol. 1
https://shop.bdspublishing.com/store/bds/detail/product/3-190-9781838795436

18-410-B Sorghum diseases and their management in cultivation: stalk, root and other diseases
C. Little, A.Y. Bandara, T. C. Todd, R. Perumal
Achieving sustainable cultivation of sorghum
July 2018, Vol. 1
https://shop.bdspublishing.com/store/bds/detail/product/3-190-9781838797652

18-486-J Botanical composition of yearling-steer and mature-ewe diets in the Kansas Flint Hills
C.A. Sowers, G.A. Gatson, J.D. Wolf, W.H. Fick, K.C. Olson
Range Ecology & Management
January 2019
Vol. 72, Issue 1, Pg. 126-135
doi.org/10.1016/j.rama.2018.09.003

18-490-B Agroclimatology of oats, barley and minor millets
M. Djanaguiraman, P.V.V. Prasad, Z.P. Stewart, R. Perumal, D. Min, I. Djalovic, I.A. Ciampitti
Agroclimatology Monograph
June 2018, Vol. 60, Ch. 10
doi.org/10.2134/agronmonogr60.2018.0020

18-494-J Modeling irrigation water and nitrogen management of wheat in northern Ethiopia
A. Araya, P.V.V. Prasad, P.H. Gowda, A. Afewerk, B. Abadi, A.J. Foster
Agricultural Water Management
May 2019
Vol. 216, Pg. 264-272
doi.org/10.1016/j.agwat.2019.01.014

18-498-J Alien chromosome segment from *Aegilops speltoides* and *Dasypyrum villosum* increases drought tolerance in wheat via profuse and deep root system
M. Djanaguiraman, P.V.V. Prasad, J. Kumari, S.K. Sehgal, B. Friebe, I. Djalovic, Y. Chen, K.H.M. Siddique, B.S. Gill
BMC Plant Biology
June 2019
Vol. 19, Article No. 242
doi.org/10.1186/s12870-019-1833-8

18-499-J Cerium oxide nanoparticles decrease drought-induced oxidative damage in sorghum leading to higher photosynthesis and grain yield
M. Djanaguiraman, R. Nair, J.P. Giraldo, P.V.V. Prasad
ACS Omega
October 2018
3 (10), 14406-14416
doi.org/10.1021/acsomega.8b01894

18-500-J Economic value and water productivity of major irrigated crops in the Ogallala aquifer region
A. Araya, P.H. Gowda, B. Golden, A.J. Foster, J. Aguilar, R. Currie, I.A. Ciampitti, P.V.V. Prasad
Agriculture Water Management
April 2019
Vol. 214, Pg. 55-63
doi.org/10.1016/j.agwat.2018.11.015

18-502-J Interplay between nitrogen fertilizer and biological nitrogen fixation in soybean: implications on seed yield and biomass allocation
S. Tamagno, V.O. Sadras, J.W. Haegele, P.R. Armstrong, I.A. Ciampitti
Scientific Reports
November 2018
Vol. 8, Article No. 17502
doi.org/10.1038/s41598-018-35672-1

18-517-J Temporal variation of soil microbial properties in a corn-wheat-soybean system
C-J. Hsiao, G.F. Sassenrath, L.H. Zeglin, G.M. Hettiarachchi, C.W. Rice
Soil Science Society of America Journal
November 2019
Vol. 83, No. 6, Pg. 1696-1711
doi:10.2136/sssaj2019.05.0160

18-519-J Glyphosate- and dicamba-resistant genes are not linked in kochia (*Bassia scoparia*)
J. Ou, A.K. Fritz, P.W. Stahlman, R.S. Currie, M. Jugulam
Weed Science
December 2018
Vol. 67, Issue 1, Pg. 16-21
doi.org/10.1017/wsc.2018.78

18-520-J From field experiments to regional forecasts: upscaling wheat grain and forage yield response to acidic soils
R.P. Lollato, T.E. Ochsner, D.B. Arnall, T. Griffin, J.T. Edwards
Agronomy Journal
January 2019
Vol. 111, Issue 1, Pg. 287-302
doi.org/10.2134/agronj2018.03.0206

18-610-J Ch. 5- A review of tillage practices and their potential to impact soil carbon dynamics
P. Mehra, J. Baker, R.E. Sojka, N. Bolan, J. Desbiolles, M.B. Kirkham, C. Ross, and R. Gupta
Advances in Agronomy
April 2018
Vol. 150, Pg. 185-230
doi.org/10.1016/bs.agron.2018.03.002

18-611-J Study on using green plants to remove contaminants from soil through phytoremediation
A.A. Alsheikh, M.B. Kirkham
Nature Environment and Pollution Technology
February 2018
Vol. 17, Issue 4, Pg. 1243-1250

18-621-J Herbicide-resistant kochia (*Bassia scoparia*) in North America: A review
V. Kumar, P. Jha, M. Jugulam, R. Yadav, P.W. Stahlman
Weed Science
January 2019, Vol. 67, Issue 1, Pg. 4-15
doi.org/10.1017/wsc.2018.72

18-628-S 2018 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 7
newprairiepress.org/kaesrr/vol4/iss7/

18-629-S 2018 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 5
newprairiepress.org/kaesrr/vol4/iss5/

18-634-J Field-based high-throughput phenotyping of plant height in sorghum using different sensing technologies
X. Wang, D. Singh, S. Marla, G. Morris, J. Poland
Plant Methods
July 2018
Vol. 14, Article No. 53
doi.org/10.1186/s13007-018-0324-5

19-009-J Warming effects of spring rainfall increase methane emissions from thawing permafrost
R.B. Neumann, C.J. Moorberg, J.D. Lundquist, J.C. Turner, M.P. Waldrop, J.W. McFarland, E.S. Euskirchen, C.W. Edgar, M.R. Turetsky
Geophysical Research Letters
January 2019
Vol. 46, Issue 3, Pg. 1393-1401
doi.org/10.1029/2018GL081274

19-011-B Precision conservation and precision regulation
J.A. Delgado, G.F. Sassenrath
Agronomy Monographs. Precision Conservation: Geospatial Techniques for Agricultural and Natural Resources Conservation
2018, Vol. 59, Ch. 17
doi.org/10.2134/agronmonogr59.c17

19-012-B Precision conservation: geospatial techniques for agricultural and natural resources conservation
J.A. Delgado, G.F. Sassenrath, T. Mueller
Agronomy Monographs. Precision Conservation: Geospatial Techniques for Agricultural and Natural Resources Conservation
2017
Vol. 59, Online ISBN:9780891183563
doi:10.2134/agronmonogr59

19-014-J Low-temperature tolerance of maize and sorghum seedlings grown under the same environmental conditions
R.M. Antony, M.B. Kirkham, T.C. Todd, S.R. Bean, J.D. Wilson, P.R. Armstrong, E. Maghirang, D.L. Brabec
Journal of Crop Improvement
March 2019
Vol. 33, Issue 3
doi.org/10.1080/15427528.2019.1579139

19-016-J Dicamba-resistant kochia (*Bassia scoparia*) in Kansas: characterization and management with fall- or spring-applied preemergence herbicides
V. Kumar, R.P. Engel, R. Currie, P. Jha, P.W. Stahlman, C. Thompson
Weed Technology
April 2019
Vol. 33, Issue 2, Pg. 342-348
doi.org/10.1017/wet.2019.4

19-022-S 2018 Kansas Performance Tests with Winter Wheat Varieties, SRP1143
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-026-J Modeling transient soil moisture dichotomies in landscapes with intermixed land covers
A. Patrignani, T.E. Ochsner
Journal of Hydrology
November 2018
Vol. 566, Pg. 783-794

19-028-J Integrating field-based heat tents and cyber-physical system technology to phenotype high night-time temperature impact on winter wheat
N.T. Hein, D. Wagner, R. Bheemanahalli, D. Šebela, C. Bustamante, A. Chiluwal, M.L. Neilsen, S.V.K. Jagadish
Plant Methods
April 2019
Vol. 15, Article 41
doi.org/10.1186/s13007-019-0424-x

19-029-J Carbon balance and source-sink metabolic changes in winter wheat exposed to high night-time temperature
S.M. Impa, V.S.J. Sunoj, I. Krassovskaya, R. Bheemanahalli, T. Obata, S.V.K. Jagadish
Plant Cell and Environment
November 2018
Vol. 42, Issue 4, Pg. 1233-1246
doi.org/10.1111/pce.13488

19-030-J Assessing strategies to enhance soil carbon sequestration with the DSSAT-CENTURY model
R.S. Nicoloso, T.J.C. Amado, C.W. Rice
European Journal of Soil Science
January 2020
doi.org/10.1111/ejss.12938

19-031-J Landscape effects on Hessian fly, *Mayetiola destructor* (Diptera: Cecidomyiidae), distribution within six Kansas commercial wheat fields
R.B. Schmid, T. Hefley, R. Lollato, B.P. McCornack
Agriculture, Ecosystems, & Environment
March 2019
Vol. 274, Pg. 52-61
doi.org/10.1016/j.agee.2018.12.018

19-032-S 2018 Southwest Research-Extension Center Research Report
B. Gillen and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 8
newprairiepress.org/kaesrr/vol4/iss8/

19-035-J Nitrogen management and uptake by corn on no-till and ridge-till claypan soil
D.W. Sweeney, D. Ruiz-Diaz, D.J. Jardine
Agrosystems, Geosciences & Environment
November 2018
Vol. 1, Issue 1, Pg. 1-6
doi.org/10.2134/age2018.09.0034

19-037-J No-till diversified cropping systems for more efficient allocation of precipitation in the Southern Great Plains
A. Patrignani, C. Godsey, T. Ochsner
Agrosystems, Geosciences & Environment
February 2019
Vol. 2, Issue 1, Pg. 1-8
doi.org/10.2134/age2018.08.0026

19-052-J Estimating herd-scale methane emissions from cattle in a feedlot using the eddy covariance measurements and the carbon dioxide tracer method
P. Prajapati, E.A. Santos
Journal of Environmental Quality
September 2019
Vol. 48, Issue 5, Pg. 1427-1434
doi.org/10.2134/jeq2018.09.0332

19-054-J Critical sulfur dilution curve and sulfur nutrition index in maize
W.D. Carciochi, N. Wyngaard, N.I. Reussi Calvo, A. Pagani, G.A. Divito, H.E. Echeverría, I.A. Ciampitti
Agronomy Journal
January 2019
Vol. 111, Issue 1
doi.org/10.2134/agronj2018.07.0467

19-056-J Plant population and fungicide economically reduced winter wheat yield gap in Kansas
B.R. Jaenisch, A. de Oliveira Silva, E. DeWolf, D.A. Ruiz-Diaz, R.P. Lollato
Agronomy Journal
March 2019
Vol. 111, Issue 2, Pg. 650-665
doi.org/10.2134/agronj2018.03.0223

19-065-J Effects of high temperature stress during anthesis and grain filling periods on photosynthesis, lipids and grain yield in wheat
M. Djanaguiraman, S. Narayanan, E. Erdayani P.V.V. Prasad
BMC Plant Biology
June 2020
Vol. 20, Article No. 268
doi.org/10.1186/s12870-020-02479-0

19-072-J Root anatomy based on root cross-section image analysis with deep learning
C. Wang, X. Li, C. Wang, D. Caragea, R. Bheemanahalli, S.V.K. Jagadish
bioRxiv
February 2019
doi.org/10.1101/442244

19-073-J Neural net classification combined with movement analysis to evaluate *Setaria viridis* as a model system for time of day of anther appearance
J.S. Desai, E. Slabaugh, D.J. Liebelt, J.D. Fredenberg, B.N. Gray, K. Jagadish, O. Wilkins, C.J. Doherty
Frontiers in Plant Science
October 2018
doi.org/10.3389/fpls.2018.01585

19-074-J Heat stress tolerance in rice (*Oryza sativa* L.): Identification of quantitative trait loci and candidate genes for seedling growth under heat stress
N.L. Kilasi, J. Singh, C.E. Vallejos, C. Ye, S.V. K. Jagadish, P. Kusolwa, B. Rathinasabapathi
Frontiers in Plant Science
November 2018
doi.org/10.3389/fpls.2018.01578

19-076-J Nutritional Genomics: Connecting crop improvement to human health
D. Rhodes
Cereal Foods World
January 2019
Vol. 64, No.1
doi.org/10.1094/CFW-64-1-0004

19-083-J Status of global pearl millet breeding programs and the way forward
D.D. Serba, R. Perumal, T.T. Tesso, D. Min
Crop Science
August 2017
Vol. 57, Issue 6, Pg. 2892-2905
doi.org/10.2135/cropsci2016.11.0936

19-085-J Accuracy evaluation of the crop-weather yield predictive models of Italian ryegrass and forage rye using cross-validation
J.L. Peng, M.J. Kim, M.H. Jo, D.H. Min, K.D. Kim, B.H. Lee, B.W. Kim, K.I. Sung
Journal of Crop Science and Biotechnology
December 2017
Vol. 20, Pg. 327-334
doi.org/10.1007/s12892-017-0090-0

19-086-J Protein and dry-matter degradability of European- and Mediterranean-derived birdsfoot trefoil cultivars grown in the colder continental USA
J.H. Grabber, W.K. Coblentz, H. Riday, T.C. Griggs, D.H. Min, J.W. MacAdam, K.A. Cassida
Forage & Grazinglands
Vol. 55, Issue 3, Pg. 1356-1364
doi.org/10.2135/cropsci2014.09.0659

19-100-S 2019 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1148
Kansas Agricultural Experiment Station

19-103-J New candidate loci and marker genes on chromosome 7 for improved chilling tolerance in sorghum
N. Moghimi, J.S. Desai, R. Bheemanahalli, S.M. Impa, A.R.Vennapusa, D. Sebela, R. Perumal, C.J. Doherty, S.V.K. Jagadish
Journal of Experimental Botany
April 2019
Vol. 70, Issue 12, Pg. 3357-3371
doi.org/10.1093/jxb/erz143

19-109-J Water deficit and heat stress induced alterations in grain physico-chemical characteristics and micronutrient composition in field grown grain sorghum
S.M. Impa, R. Perumal, S.R. Bean, V.S.J. Sunoj, S.V.K. Jagadish
Journal of Cereal Science
March 2019
Vol. 86, Pg. 124-131
doi.org/10.1016/j.jcs.2019.01.013

19-111-J Drought or/and heat-stress effects on seed filling in food crops: Impacts on functional biochemistry, seed yields and nutritional quality
A. Sehgal, K. Sita, K.H.M. Siddique, R. Kumar, S. Bhogireddy, R.K. Varshney, B. Hanumantha Rao, R.M. Nair, P.V.V. Prasad, H. Nayyar
Frontiers in Plant Sciences
November 2018
Vol. 9, No. 1705
doi.org/10.3389/fpls.2018.01705

19-112-J Corn response to long-term phosphorus fertilizer application rate and placement with strip-tillage
C.L. Preston, D.A. Ruiz Diaz, D.B. Mengel
Agronomy Journal
March 2019
Vol. 111, Issue 2, Pg. 841-850
doi.org/10.2134/agronj2017.07.0422

19-114-J A survey of introductory soil science courses and curricula in the United States
N.A. Jelinski, C.J. Moorberg, M.D. Ransom, J.C. Bell
Natural Sciences Education
February 2019
Vol. 48, Issue 1, Pg. 1-13
doi.org/10.4195/nse2018.11.0019

19-117-J Particulate plastics as a vector for toxic trace-element uptake by aquatic and terrestrial organisms and human health risk
L. Bradney, H. Wijesekara, K.N. Palansooriya, N. Obadamudalige, N.S. Bolan, Y.S. Ok, J. Rinklebe, K. Kolyvas, K.-H. Kim, M.B. Kirkham
Environment International
October 2019, Vol. 131
doi.org/10.1016/j.envint.2019.104937

19-119-S 2018 Kansas Performance Tests with Corn Hybrids, SRP1145
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-120-J Estimating biological nitrogen fixation in field-grown soybeans: impact of B value
G. Balboa, I. Ciampitti
Plant and Soil Journal
November 2019
Article No. 446, Pg. 195-210
doi.org/10.1007/s11104-019-04317-1

19-121-J Genetic diversity, population structure, and linkage disequilibrium in pearl millet
D.D. Serba, K.T. Muleta, P. St. Anand, A. Bernando, G. Bai, R. Perumal, E. Bashir
The Plant Genome
November 2019
Vol. 12, Issue 3, Pg. 1-12
doi.org/10.3835/plantgenome2018.11.0091

19-122-J Soil organic carbon dynamics: Impact of land use changes and management practices - A review
T. Ramesh, N.S.Bolan, MB. Kirkham, H. Wijesekara, M. Kanchikerimath, C.S. Rao, S. Sandeep, J. Rinklebeg, Y.S. Ok, B.U. Choudhury, H. Wang, C. Tang, X. Wang, Z. Song, O.W. Freeman
Advances in Agronomy
2019, Vol. 156, Pg. 1-107
doi.org/10.1016/bs.agron.2019.02.001

19-127-J Moisture effects on robustness of sorghum grain protein near-infrared spectroscopy calibration
K.H.S. Peiris, S.R. Bean, A. Chiluwal, R. Perumal, S.V.K. Jagadish
Cereal Chemistry
July 2019
Vol. 96, Issue 4, Pg. 678-688
doi.org/10.1002/cche.10164

19-131-A Winter cover crops to sustain soil in the Great Plains
M.B. Kirkham, O.W. Freeman II, K.L. Roozeboom, A.J. Schlegel, S.A. Staggenborg
Proceedings of the 2018 Annual International Meeting of the American Society for Agricultural and Biological Engineers
2018
doi:10.13031/aim.201801864

19-142-J Assessing variation in US soybean seed composition (protein and oil)
Y. Assefa, L.C. Purcell, M. Salmeron, S. Naeve, S.N. Casteel, P. Kovács, S. Archontoulis, M. Licht, F. Below, H. Kandel, L.E. Lindsey, J. Gaska, S. Conley, C. Shapiro, J.M. Orlowski, B.R. Golden, G. Kaur, M. Singh, K. Thelen, R. Laurenz, D. Davidson, I.A. Ciampitti
Frontier Plant Science
March 2019
doi: 10.3389/fpls.2019.00298

19-143-J Performance of grain sorghum hybrids resistant to acetolacate synthase (ALS) and acetyl coenzyme-A carboxylase (ACCase) inhibitor herbicides
D. Weerasooriya, D. Gobena, A. Bandara, F. Dowell, K. Peiris, S. Bean, R. Perumal, E. Adee, T. Tesso
Crop Science
August 2020
doi.org/10.1002/csc2.20309

19-145-J Impact of fungicide and insecticide use on wheat production in a high-rainfall environment
G.F. Sassenrath, J. Farney, R. Lollato
Crops, Forage & Turfgrass Management
October 2019
Vol. 5, Issue 1, Pg. 1-10
doi.org/10.2134/cftm2019.01.0008

19-146-J Optimizing genomic selection for a sorghum breeding program in Haiti: A simulation study
K.T. Muleta, G. Pressoir, G.P. Morris
G3: Genes, Genomes, Genetics
February 2019
Vol. 9, No 2, 391-1401
doi.org/10.1534/g3.118.200932

19-166-J Nitrogen application effects on forage sorghum production and nitrate concentration
J.D. Holman, A.K. Obour, D.B. Mengel
Journal of Plant Nutrition
September 2019
Vol. 42, No. 20, Pg. 2794-2804
doi.org/10.1080/01904167.2019.1659321

19-178-S 2018 Kansas Performance Tests with Soybean Varieties, SRP1146
J. Lingenfelser and other co-authors
Kansas Agricultural Experiment Station

19-179-J Phosphorus fertilizer placement and rate affect soybean root growth and nutrient uptake in soil with high fertility
F.D. Hansel, D.A. Ruiz Diaz, A.T. Rosa, C.J. Moorberg
Agronomy Science and Biotechnology
2019, Vol. 5, Issue 1
doi:10.33158/ASB.2019v5i1p62

19-182-J Development of PLEAD: A database containing event-based runoff phosphorus loadings from agricultural fields
C.H. Bolster, C. Baffaut, N.O. Nelson, D.L. Osmond, M.L. Cabrera, J.J. Ramirez-Avila, A.N. Sharpley, T.L. Veith, A.M.S. McFarland, A.G.M.M.M. Senaviratne, G.M. Pierzynski, R.P. Udawatta
Journal of Environmental Quality
March 2019
Vol. 48, Issue 2. Pg. 510-517
doi.org/10.2134/jeq2018.09.0337

19-183-J Evaluation of four parameterization strategies for the APEX model
G.M.M.M.A. Senaviratne, C. Baffaut, J.A. Lory, R.P. Udawatta, N.O. Nelson, A.B. Bhandari
Transactions of the ASABE
2018
Vol. 61, Issue 5, Pg. 1603-1617
doi: 10.13031/trans.12656

19-184-J Improved APEX model simulation of buffer water quality benefits at field-scale
G.M.M.M.A. Senaviratne, C. Baffaut, J.A. Lory, R.P. Udawatta, N.O. Nelson, J.R. Williams, S.H. Andersen
Transactions of the ASABE
2018, Vol. 61, Issue 2, Pg. 603-616
doi: 10.13031/trans.12655

19-185-J The promise, practice, and state of planning tools to assess site vulnerability to runoff phosphorus loss
P.J.A. Kleinman, A.N. Sharpley, A.R. Buda, Z.M. Easton, J.A. Lory, D.L. Osmond, D.E. Radcliffe, N.O. Nelson, T.L. Veith, D.G. Doody
Journal of Environmental Quality
November 2017
Vol. 46, Issue 6, Pg. 1243-1249
doi.org/10.2134/jeq2017.10.0395

19-186-J Evaluation of phosphorus site assessment tools: Lessons from the USA
A. Sharpley, P. Kleinman, C. Baffaut, D. Beegle, C. Bolster, A. Collick, Z. Easton, J. Lory, N. Nelson, D. Osmond, D. Radcliffe, T. Veith, J. Weld
Journal of Environmental Quality
November 2017
Vol. 46, Issue 6, Pg. 1250-1256
doi.org/10.2134/jeq2016.11.0427

19-191-S 2018 Kansas Performance Tests with Grain Sorghum Hybrids, SRP1147
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-192-J Climate zones determine where substantial increases of maize yeilds can be attained in Northeast China
Z. Liu, X. Yang, X. Lin, P. Gowda, S. Lv, J. Wang
Climate Change
August 2018
Vol. 149, Pg. 473-487
doi.org/10.1007/s10584-018-2243-x

19-193-J Registration of 'Surefire' winter canola
M. Stamm, S. Angadi, J. Damicone, S. Dooley, J. Holman, J. Johnson, J. Lofton, D. Santra
Journal of Plant Registrations
September 2019
Vol. 13, No. 3, Pg. 316-319
doi:10.3198/jpr2019.02.0007crc

19-196-J Heat storage and its effect on the surface energy balance closure under advective conditions
S. Kutikoff, X. Lin, S. Evett, P. Gowda, J. Moorhead, G. Marek, P. Colaizzi, R. Aiken, D. Brauer
Agricultural and Forest Meteorology
February 2019
Vol. 265, Pg. 59-69
doi.org/10.1016/j.agrformet.2018.10.018

19-202-J Wheat grain yield and grain nitrogen relationships as affected by N, P, and K fertilization: A synthesis of long-term experiments
R.P. Lollato, B.M. Figueiredo, J.S. Dhillon, D.B. Arnall, W.R. Raun
Field Crops Research
April 2019
Vol. 236, Pg. 42-57
doi.org/10.1016/j.fcr.2019.03.005

19-203-J Nitrogen utilization efficiency in wheat: A global perspective
A. de Oliveira Silva, I.A. Ciampitti, G.A. Slafer, R.P. Lollato
European Journal of Agronomy
March 2020, Vol. 114
doi.org/10.1016/j.eja.2020.126008

19-205-S 2018 Kansas Performance Tests with Sunflower Hybrids, SRP1149
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-206-J Evaluating a Lagrangian inverse model for inferring isotopic CO_2 exchange in plant canopies
M.V. Santos, E. Santos, K. Stropes, C. Wagner-Riddle, S. Brown, K. Stropes, R. Staebler, J. Nippert
Agricultural and Forest Meteorology
October 2019, Vol. 276-277
doi.org/10.1016/j.agrformet.2019.107651

19-218-J Multiplex restriction amplicon sequencing: a novel next-generation sequencing-based marker platform for high-throughput genotyping
A. Bernardo, P. St. Amand, H.Q. Le, Z. Su, G. Bai
Plant Biotechnology Journal
January 2020
Vol. 18, Issue 1, Pg. 254-265
doi.org/10.1111/pbi.13192

19-232-J Late-season nitrogen fertilization on maize yield: a meta-analysis
J.A. Fernandez, J. DeBruin, C.D. Messina, I.A. Ciampitti
Field Crops Research
February 2020, Vol. 247
doi.org/10.1016/j.fcr.2019.107586

19-235-J Pre-planting weed detection based on ground field spectral data
L.P. Pott, T.J.C. Amado, R.A. Schwalbert, E. Sebem, M. Jugulam, I.A. Ciampitti
Pest Management Science
October 2019
Vol. 76, Issue 3, Pg. 1173-1182
doi.org/10.1002/ps.5630

19-251-J Registration of 17 sorghum pollinator germplasm lines resistant to acetolactate synthase (ALS)-inhibitor herbicides
T. Tesso, D.D. Gobena, R. Perumal, S. Bean, J. Wilson, C. Little
Journal of Plant Registrations
March 2019
Vol. 13, Issue 2, Pg. 212-216
doi:10.3198/jpr2018.05.0032crg

19-252-S 2018 National Winter Canola Variety Trial
Coordinating authors M. Stamm and S. Dooley, multiple co-authors
SRP1150
Kansas Agricultural Experiment Station

19-254-J Productivity and profitability of four crop rotations under limited irrigation
A.J. Schlegel, Y. Assefa, D. O'Brien
Transactions of the ASABE
2020, Vol. 36, Issue 1, Pg. 1-9
doi.org/10.13031/aea.13416

19-268-J Genomic signatures of adaptation to Sahelian and Soudanian climates in sorghum landraces of Senegal
J.M. Faye, F. Maina, Z. Hu, D. Fonceka, N. Cisse, G.P. Morris
Ecology and Evolution
April 2019, Vol. 9, Issue 10
doi.org/10.1002/ece3.5187

19-276-J Soybean yield response to *Bradyrhizobium* strains inoculation in fields with inoculation history in Southern Brazil
V.G. Ambrosini, S.M.V. Fontoura, R.P. de Moraes, S. Tamagno, I.A. Ciampitti, C. Bayer
Journal of Plant Nutrition
August 2019
Vol. 42, Issue 16
doi.org/10.1080/01904167.2019.1648680

19-286-S 2019 Southeast Agricultural Research Center Agricultural Research Report
L. Lomas and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 2
newprairiepress.org/kaesrr/vol5/iss2/

19-287-J Species and termination method effects on phosphorus loss from plant tissue
R.E. Carver, N.O. Nelson, K.L. Roozeboom, M.B. Kirkham
Journal of Environmental Quality
December 2019
Vol. 49, Issue 1
doi.org/10.1002/jeq2.20019

19-292-J Stalk rot resistant sorghum genotypes are resilient to pathogen-mediated photosystem II quantum yield retardation
A.Y. Bandara, D.K. Weerasooriya, T.T. Tesso, C.R. Little
Crop Protection
October 2019, Vol. 124
doi.org/10.1016/j.cropro.2019.104852

19-297-J Stocking rate impacts on tallgrass prairie landscape carbon fluxes
C.E. Owensby, L.M. Auen
Crop, Forage, & Turfgrass Management
June 2020, Vol. 6, Issue 1
doi.org/10.1002/cft2.20048

19-303-J Novel sources of wheat head blast resistance in modern breeding lines and wheat wild relatives
G. Cruppe, C.D. Cruz, G. Peterson, K. Pedley, M. Asif, A. Fritz, L. Calderon, C. Lemes da Silva, T. Todd, P. Kuhnem, P. K. Singh, R.P. Singh, H.-J. Braun, N.C.D. Barma, B. Valent
Plant Disease
January 2020, Vol. 104, No. 1
doi.org/10.1094/PDIS-05-19-0985-RE

19-314-J Meta-analysis of QTLs for Fusarium head blight resistance in Chinese wheat landraces
J. Cai, S. Wang, Z. Su, T. Li, X. Zhang, G. Bai
The Crop Journal
December 2019
Vol.7, Issue 6, Pg. 784-798
doi.org/10.1016/j.cj.2019.05.003

19-317-S 2018 Forage Report
J. Holman, A. Obour, A. Esser, J. Lingenfelser, T. Roberts
Kansas Agricultural Experiment Station
Vol. 5, Issue 3
newprairiepress.org/kaesrr/vol5/iss3/

19-318-S 2019 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 4
newprairiepress.org/kaesrr/vol5/iss4/

19-319-S 2019 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 6
newprairiepress.org/kaesrr/vol5/iss6/

19-321-J Potential impacts of climate change factors and agronomic adaptation strategies on wheat yields in central highlands of Ethiopia
A. Arayaa, P.V.V. Prasad, P.H. Gowda, M. Djanaguiraman, A.H. Kassa
Climate Change
January 2020
Vol. 159, Pg. 461-479
doi.org/10.1007/s10584-019-02627-y

19-322-J Deterioration of ovary plays a key role in heat stress-induced spikelet sterility in sorghum
A. Chiluwal, R. Bheemanahalli, V. Kanaganahalli, D. Boyle, R. Perumal, M. Pokharel, H. Oumarou, S.V.K. Jagadish
Plant, Cell & Environment
November 2019
Vol. 43, Issue 2, Pg. 448-462
doi.org/10.1111/pce.13673

19-325-J Increased absorption and translocation contribute to improved efficacy of dicamba to control early growth stage Palmer amaranth (*Amaranthus palmeri*)
I. Cuvaca, R. Currie, K. Roozeboom, J. Fry, M. Jugulam
Weed Science
January 2020, Vol. 68, Issue 1
doi.org/10.1017/wsc.2019.67

19-334-J A review of the latest in phosphorus fertilizer technology: Possibilities and pragmatism
J. J. Weeks Jr., G.M. Hettiarachchi
Journal of Environmental Quality
August 2019
Vol. 48, No. 5, Pg. 1300-1313
doi:10.2134/jeq2019.02.0067

Anatomy and Physiology

17-160-J Observational evidence of temperature trends at two levels in the surface layer
X. Lin, R.A. Pielke, R. Mahmood, C.A. Fiebrich, R. Aiken
Atmospheric Chemistry and Physics
January 2016
Vol. 16, Issue 2
doi.org/10.5194/acp-16-827-2016

18-036-J Adjuvants for animal vaccines
Y. Burakova, R. Madera, S. McVey, J.R. Schlup, J. Shi
Viral Immunology
January 2018, Vol. 31, Issue 1
doi.org/10.1089/vim.2017.0049

18-037-J Comparison of immune responses in pigs infected with Chinese highly pathogenic PRRS virus strain HV and North American strain NADC-20
X. Li, A. Galliher-Beckley, L. Wang, J. Nietfeld, W. Feng, J. Shi
The Open Virology Journal
June 2017
Vol. 11, Issue Suppl-1, M5, Pg. 73-82
doi: 10.2174/1874357901711010073

18-038-J Complete genome sequence of a sub-subgenotype 2.1i isolate of classical swine fever virus from China
B. Zhang, S. Mi, F. Bao, H. Guo, C. Tu, J. Shi, W. Gong
American Society for Microbiology Journals
April 2017, Vol. 5, Issue 14
doi.org/10.1128/genomeA.00127-17

18-039-J Serum metabolomic profiling of piglets infected with virulent classical swine fever virus
W. Gong, J. Jia, B. Zhang, S. Mi, L. Zhang, X. Xie, H. Guo, J. Shi, C. Tu
Frontiers in Microbiology
April 2017, Vol. 8, Issue 731
doi.org/10.3389/fmicb.2017.00731

18-040-J Impact of oil composition on formation and stability of emulsions produced by spontaneous emulsification
Y. Burakova, J. Shi, J.R. Schlup
Journal of Dispersion Science and Technology
March 2017
Vol. 38, Issue 12
doi.org/10.1080/01932691.2017.1281141

18-041-J Pigs immunized with a novel E2 subunit vaccine are protected from heterologous classical swine fever virus challenge
R. Madera, W. Gong, L. Wang, Y. Burakova, K. Lleellish, A. Galliher-Beckley, J. Nietfeld, J. Henningson, K. Jia, P. Li, J. Bai, J. Schlup, S. McVey, C. Tu, J. Shi
BMC Veterinary Research
September 2016
Vol. 12, Article No. 197
doi.org/10.1186/s12917-016-0823-4

18-042-J A multiplex real-time PCR panel assay for simultaneous detection and differentiation of 12 common swine viruses
X. Shi, X. Liu, Q. Wang, A. Das, G. Ma, L. Xu, Q. Sun, L. Peddireddi, W. Jia, Y. Liu, G. Anderson, J. Bai, J. Shi
Journal of Virological Methods
October 2016
Vol. 236, Pg. 258-265
doi.org/10.1016/j.jviromet.2016.08.005

18-043-J Highly pathogenic porcine reproductive and respiratory syndrome virus Nsp4 cleaves VISA to impair antiviral responses mediated by RIG-I-like receptors
C. Huang, Y. Du, Z. Yu, Q. Zhang, Y. Liu, J. Tang, J. Shi, W. Feng
Scientific Reports
June 2016
Vol. 6, Article No. 28497
doi.org/10.1038/srep28497

18-044-J Complete genome sequence of a novel sub-subgenotype 2.1g isolate of classical swine fever virus from China
W. Gong, L. Zhang, Z. Lu, J. Jia, M. Wang, Z. Peng, H. Guo, J. Shi, C. Tu
Archives of Virology
June 2016
Vol. 161, Pg. 2613-2617
doi.org/10.1007/s00705-016-2932-6

18-045-J In vitro adaptation and genome analysis of a sub-subgenotype 2.1c isolate of classical swine fever virus
W. Gong, Z. Lu, L. Zhang, X. Xie, D. Jiang, J. Jia, H. Guo, J. Shi, C. Tu
Virus Genes
May 2016, Vol. 52, Pg. 651-659
doi.org/10.1007/s11262-016-1350-x

18-046-J Genetic diversity of subgenotype 2.1 isolates of classical swine fever virus
W. Gong, J. Wu, Z. Lu, L. Zhang, S. Qin, F. Chen, Z. Peng, Q. Wang, L. Ma, A. Bai, H. Guo, J. Shi, C. Tu
Infection, Genetics and Evolution
July 2016, Vol. 41, Pg. 218-226
doi.org/10.1016/j.meegid.2016.04.002

18-047-J Characterization of a novel oil-in-water emulsion adjuvant for swine influenza virus and *Mycoplasma hyopneumoniae* vaccines
A. Galliher-Beckley, L.K. Pappan, Rachel Madera, Y. Burakova, A. Waters, M. Nickles, X. Li, J. Nietfeld, J.R.Schlup, Q. Zhong, S. McVey, S.S.Dritz, J. Shi
Vaccine
June 2015
Vol. 33, Issue 25, Pg. 2903-2908
doi.org/10.1016/j.vaccine.2015.04.065

18-048-J Pigs immunized with Chinese highly pathogenic PRRS virus modified live vaccine are protected from challenge with North American PRRSV strain NADC-20
A. Galliher-Beckley, X. Li, J.T. Bates, R. Madera, A. Waters, J. Nietfeld, J. Henningson, D. He, W. Feng, R. Chen, J. Shi
Vaccine
July 2015
Vol. 33, Issue 30, Pg. 3518-3525
doi.org/10.1016/j.vaccine.2015.05.058

18-049-J Characterization of dye-decolorizing peroxidase (DyP) from *Thermomonospora curvata* reveals unique catalytic properties of A-type DyPs
C. Chen, R. Shrestha, K. Jia, P.F. Gao, B.V. Geisbrecht, S.H. Bossmann, J. Shi, P. Li
Journal of Biological Chemistry
July 2015
Vol. 290, Pg. 23447-23463
doi: 10.1074/jbc.M115.658807

18-050-A Pigs immunized with a novel E2 subunit vaccine are protected from subgenotype heterologous classical swine fever virus challenge
R. Madera, W. Gong, L. Wang, Y. Burakova, K. Lleellish, A. Galliher-Beckley, J. Nietfeld, J.. Henningson, K. Jia, P. Li, J. Bai, J. Schlup, S. McVey, C. Tu, J. Shi.
North American PRRS Symposium
December 2016

18-051-A Defined phylogeny of subgenotype 2.1 classical swine fever viruses
W. Gong, L. Zhang, J. Wu, S. Qin, A. Bai, Z. Lv, J. Shi, C. Tu
The 24th International Pig Veterinary Society Congress & the 8th European Symposium of Porcine Health Management
June 2016

18-052-A Evaluation of novel inactivation method of PRRSV for vaccine production
J. Shi
The 24th International Pig Veterinary Society Congress & the 8th European Symposium of Porcine Health Management
June 2016

18-053-A Novel vaccine adjuvants for animal infectious diseases
J. Shi
10th Euro Global Summit and Expo on Vaccines & Vaccination
June 2016

18-054-A The impact of oil composition on emulsion formation and stability
Y. Burakova, J. Shi, J.R. Schlup
American Institute of Chemical Engineers Annual Meeting
November 2015

18-055-A Classical swine fever: why should we care about a disease that is not here?
W. Gong, R. Madera, J. Bates, Y. Burakova, R. Shrestha, K. Jia, P. Li, J. Schlup, C. Tu, J. Shi
The Growing Risk of Zoonotic & Vector-Borne Diseases Conference
August 2015

18-059-A Hydrogen peroxide inactivation of PRRS virus for vaccine preparation
Y. Burakova, L. Wang, R. Madera, J.R. Schlup, J. Shi
96th Conference for Research Workers in Animal Diseases, Chicago, IL
December 2015

18-060-A Serum metabolomic profiling study of classical swine fever virus-infected pigs
W. Gong, J. Jia, N. Chen, X. Li, C. Zhu, Y. Wu, H. Guo, S. Yuan, J. Shi, C. Tu
2015 North American PRRS Symposium, Chicago, IL
December 2015

18-077-J Suppression of calpain expression by NSAIDs is associated with inhibition of cell migration in rat duodenum
K. Silver, A. Littlejohn, L. Thomas, B. Bawa, J.D. Lillich
Toxicology
May 2017, Vol. 383, Pg. 1-12
doi.org/10.1016/j.tox.2017.03.017

Animal Sciences and Industry

16-068-J Formation of 4(5)-methylimidazole in aqueous D-glucose-amino acids model system
F. Karim, J.S. Smith
Journal of Food Science
November 2015
Vol. 81, Issue 1
doi.org/10.1111/1750-3841.13163

16-169-J Inhibition of advanced glycation endproducts in cooked beef patties by cereal bran addition
G. Chen, R.L. Madl, J.S. Smith
Food Chemistry
March 2017
Vol. 73, Part B, Pg. 847-853
doi.org/10.1016/j.foodcont.2016.09.037

16-366-J Effect of milk protein concentrate (MPC 80) quality on susceptibility to fouling during thermal processing
G. Gandhi, J. K. Amamcharla, D. Boyle
LWT- Food Science and Technology
August 2017
Vol. 81, Pg. 170-179
doi.org/10.1016/j.lwt.2017.03.063

17-039-J Cereal bran extracts inhibit the formation of advanced glycation endproducts in a bovine serum albumin/glucose model
G. Chen, R.L. Madl, J.S. Smith
Cereal Chemistry
June 2018
Vol. 95, Issue 5
doi.org/10.1002/cche.10070

17-041-J Patch-burning on tall-grass native prairie does not negatively affect stocker performance or pasture composition
J.K. Farney, C.B. Rensink, W.H. Fick, D. Shoup, G.A. Miliken
The Professional Animal Scientist
October 2017
Vol. 33, Issue 5, Pg. 549-554
doi.org/10.15232/pas.2016-01574

17-113-J Evaluation of a sol-gel-based stainless steel surface modification to reduce fouling and biofilm formation during pasteurization of milk
D. Zhe Liu, S. Jindal, J. Amamcharla, S. Anand, L. Metzger
Journal of Dairy Science
April 2017
Vol. 100, Issue 4, Pg. 2577-2581
doi.org/10.3168/jds.2016-12141

17-295-J Intercellular transfer of mitochondria rescues virus-induced cell death but facilitates cell-to-cell spreading of porcine reproductive and respiratory syndrome virus
R. Guo, D. Davis, Y. Fang
Virology
April 2018, Vol. 517, Pg. 122-134
doi.org/10.1016/j.virol.2017.12.018

17-297-J Amino acids inhibitory effects and mechanism on 2-amino-1-methyl-6-phenylimidazo [4,5-b]pyridine (PhIP) formation in the Maillard reaction model systems
Z. Linghu, F. Karim, J.S. Smith
Journal of Food Science
October 2017
Vol. 82, Issue 12
doi.org/10.1111/1750-3841.13959

17-349-J Effect of high doses of Natuphos E 5,000 G phytase on growth performance of nursery pigs
K.M. Gourley, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, R.D. Goodband
Journal of Animal Science
January 2018
Vol. 96, Issue 2, Pg. 570-578
doi.org/10.1093/jas/sky001

17-387-J In vitro supplementation with the porcine plasma product, betaGRO®, stimulates activity of porcine fetal myoblasts and neonatal satellite cells in a divergent manner
M. A. Vaughn, K. J. Phelps, J. M. Gonzalez
animal
September 2018
Vol. 12, Issue 9, Pg. 1912-1920
doi.org/10.1017/S1751731117003329

18-007-J Effects of marbling texture on muscle fiber and collagen characteristics
K.R. Vierck, T.G. O'Quinn, J.A. Noel, T.A. Houser, E.A.E. Boyle, J.M. Gonzalez
Meat Science and Muscle Biology
March 2018
Vol. 2, Issue 1, Pg. 75-82
doi:10.22175/mmb2017.10.0054

18-009-J Injectable trace-mineral supplementation improves sperm motility and morphology of young beef bulls
G.W. Preedy, S.L. Hill, J.S. Stevenson, R.L. Weaber, K.C. Olson
Applied Animal Science
February 2018
Vol. 34, Issue 1, Pg. 1-9
doi.org/10.15232/pas.2017-01667

18-019-J Nitrogen management for forage production from endophyte-free tall fescue grown on claypan soil
D.W. Sweeney, J.L. Moyer, J.K. Farney
Crop, Forage & Turfgrass Management
December 2017
Vol. 3, Issue 1
doi.org/10.2134/cftm2017.07.0051

18-022-J Additional small dose of prostaglandin $F2_a$ at timed of artificial insemination failed to improve pregnancy risks of lactating dairy cows
J.A. Sauls, B.E. Voelz, L.G. D. Mendonça, J.S. Stevenson
Theriogenology
January 2018, Vol. 110, Pg. 27-33
doi: 10.1016/j.theriogenology.2017.12.051

18-025-J Antimicrobial resistance of *Enterococcus faecium* strains isolated from commercial probiotic products used in cattle and swine
R.G. Amachawadi, F. Giok, X. Shi, J. Soto, S.K. Narayanan, M.D. Tokach, M.D. Apley, T. G. Nagaraja
Journal of Animal Science
March 2018
Vol. 96, Issue 3, Pg. 912-920
doi.org/10.1093/jas/sky056

18-090-J Effects of high condensed-tannin substrate, prior dietary tannin exposure, antimicrobial inclusion, and animal species on fermentation parameters following a 48 h in vitro incubation
A.N. Hoehn, E.C. Titgemeyer, T.G. Nagaraja, J.S. Drouillard, M.D. Miesner, K.C. Olson
Journal of Animal Science
January 2018
Vol. 96, Issue 1, Pg. 343-353
doi.org/10.1093/jas/skx018

18-091-J Effects of fat supplementation to diets high in nonforage fiber on production responses of midlactation dairy cows
C.M. Ylioja, C. Abney-Schulte, R. Stock, B.J. Bradford
Journal of Dairy Science
July 2018
Vol. 101, Issue 7, Pg. 6066-6073
doi.org/10.3168/jds.2017-13991

18-101-J Effect of Brahman genetics on myofibrillar protein degradation, collagen crosslinking, and tenderness of the longissimus lumborum
K.J. Phelps, D.D. Johnson, M.A. Elzo, C.B. Paulk, J.M. Gonzalez
Journal of Animal Science
December 2017
Vol. 95, Issue 12, Pg. 5397-5406
doi.org/10.2527/jas2017.2022

18-123-J Effects of dietary energy level and intake of corn by-product based diets on newly received growing cattle: Antibody production, acute phase protein response, stress, and immunocompetency of healthy and morbid animals
T.J. Spore, S.P. Montgomery, E.C. Titgemeyer, G.A. Hanzlicek, C.I. Vahl, T.G. Nagaraja, K.T. Cavalli, W.R. Hollenbeck, R.A. Wahl, D.A. Blasi
Journal of Animal Science
April 2018
Vol. 96, Issue 4, Pg. 1474-1438
doi.org/10.1093/jas/sky035

18-150-J Selective extraction of phospholipids from whey protein phospholipid concentrate using supercritical carbon dioxide and ethanol as a co-solvent
B. Sprick, Z. Linghu, J.K. Amamcharla, J.K. Amamcharla, L.E. Metzger, J.S. Smith
Journal of Dairy Science
December 2019
Vol. 102, Issue 12, Pg. 10855-10866
doi.org/10.3168/jds.2019-16419

18-164-J Productivity of lactating dairy cows fed diets with teff hay as the sole forage
B.A. Saylor, D.H. Min, B.J. Bradford
Journal of Dairy Science
July 2018
Vol. 101, Issue 7, Pg. 5984-5990
doi.org/10.3168/jds.2017-14118

18-171-J United States beef quality as chronicled by the National Beef Quality Audits, Beef Consumer Satisfaction Projects, and National Beef Tenderness Surveys- A review
J.M. Gonzalez, K. J. Phelps
Asian-Australasian Journal of Animal Science
May 2018
Vol. 31, Issue 7, Pg. 1036-1042
doi.org/10.5713/ajas.18.0199

18-195-J Lessons learned from managing electronic sow feeders and collecting weight gain of gestating sows housed on a large commercial farm
L.L. Thomas, M.A. Gonçalves, C.M. Vier, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey
Journal of Swine Health and Production
March 2018
Vol. 26, No. 5, Pg. 270-275

18-196-S 2017 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 7
https://newprairiepress.org/kaesrr/vol3/iss7/

18-204-J Forage mass production, forage nutrient value, and cost comparisons of three-way cover crop mixes
J.K. Farney, G.F. Sassenrath, C.J. Davis, D. Presley
Crops, Forage, and Turfgrass Management
August 2018, Vol. 4, Issue 1
doi.org/10.2134/cftm2017.11.0081

18-210-J Evaluation of the contribution of tenderness, juiciness, and flavor to the overall consumer beef eating experience
T. G. O'Quinn, J. F. Legako, J C. Brooks, M. F. Miller
Translational Animal Science
January 2018
Vol. 2, Issue 1, Pg. 26-36
doi.org/10.1093/tas/txx008

18-212-J Influence of protein content and storage temperature on the particle morphology and flowability characteristics of milk protein concentrate powders
K. Sajith Babu, K. Siliveru, J.K. Amamcharla, P.V. Vadlini, R.P. Kingsly Ambrose
Journal of Dairy Science
August 2018
Vol. 101, Issue 8, Pg. 7013-7026
doi.org/10.3168/jds.2018-14405

18-248-J Effect of standardized ileal digestible lysine on growth and subsequent performance of weanling pigs
J.E. Nemechek, F. Wu, M.D. Tokach, S.S. Dritz, R.D. Goodband, J.M. DeRouchey, and J.M. Woodworth
Translational Animal Science
April 2018
Vol. 2, Issue 2, Pg. 156-161
doi.org/10.1093/tas/txy011

18-249-J Effect of parity and stage of gestation on growth and feed efficiency of gestating sows
L.L. Thomas, R.D. Goodband, M.D. Tokach, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz
Journal of Animal Science
July 2018
Vol. 96, Issue 10, Pg. 4327-4338
doi.org/10.1093/jas/sky279

18-250-J Partitioning components of maternal growth to determine efficiency of feed use in gestating sows
L.L. Thomas, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey
Journal of Animal Science
June 2018
Vol. 96, Issue 10, Pg. 4313-4326
doi.org/10.1093/jas/sky219

18-267-S 2017 Dairy Research Report
B. Bradford and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 8
newprairiepress.org/kaesrr/vol3/iss8/

18-270-J Influence of milk protein concentrates with modified calcium content on the enteral dairy beverage formulation: Physicochemical properties
K. Pandalaneni, J. Amamcharla, C. Marella, L. Metzger
Journal of Dairy Science
November 2018
Vol. 101, Issue 11, Pg. 9714-9724
doi.org/10.3168/jds.2018-14781

18-276-J Choline regulates the function of bovine immune cells and alters the mRNA abundance of enzymes and receptors involved in its metabolism in vitro
M. Garcia, L.K. Mamedova, B. Barton, B.J. Bradford
Frontiers in Immunology
October 2018, Vol. 9
doi: 10.3389/fimmu.2018.02448

18-277-J Evaluating the effects of fish meal source and level on growth performance of nursery pigs
A.M. Jones, F. Wu, J.C. Woodworth, M.D. Tokach, R.D. Goodband, J.M. DeRouchey, S.S. Dritz
Translational Animal Science
April 2018
Vol. 2, Issue 2, Pg. 144-155
doi.org/10.1093/tas/txy010

18-280-J Effects of tylosin administration routes on the prevalence of antimicrobial resistance among fecal enterococci of finishing swine
F. Wu, M.D. Tokach, J.M. DeRouchey, S.S. Dritz, J.C. Woodworth, R.D. Goodband, K. Chitakasempornkul, N.M. Bello, K. Capps, S. Remfry, H.M. Scott, T.G. Nagaraja, M.D. Apley, R.G. Amachawadi
Foodborne Pathogens and Disease
May 2019, Vol. 16, Issue 5
http://doi.org/10.1089/fpd.2018.2551

18-282-J Simulation of time and temperature as a public health control for food served during field trips
S.E. Gragg, N.J. Sevart, P. Paez, A. Wilder, T. Watkins, R.K. Phebus
Food Protection Trends
January 2019
Vol. 39, Issue 1, Pg. 8-17

18-283-J Control of surrogate *Escherichia coli* populations in three food products using common food service cooling methods
L. Beardall, P. Paez, R.K. Phebus, T. Watkins, S.E. Gragg
Food Protection Trends
May 2019
Vol. 39, Issue 3, Pg. 200-211

18-286-J Dose frequency of prostaglandin $F2_a$ administration to dairy cows exposed to presynchronization and either 5- or 7-day Ovsynch program durations: Ovulatory, luteolytic risks
J.S. Stevenson, J.A. Sauls, L.G.D. Mendonça, B.E. Voelz
Journal of Dairy Science
October 2018
Vol. 101, Issue 10, Pg. 9575-9590
doi.org/10.3168/jds.2018-14653

18-287-J Effects of dietary supplementation of formaldehyde and crystalline amino acids on gut microbial composition of nursery pigs
H.E. Williams, R.A. Cochrane, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, C.K. Jones, S.C. Fernando, T.E. Burkey, Y.S. Li, R.D. Goodband, R.G. Amachawadi
Scientific Reports
May 2018, Vol. 8, Article No. 8164
doi.org/10.1038/s41598-018-26540-z

18-290-J Effects of chlortetracycline alone or in combination with direct fed microbials on nursery pig growth performance and antimicrobial resistance of fecal *Escherichia coli*
H.E. Williams, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, T.G. Nagaraja, R.D. Goodband, J.R. Pluske, K. Chitakasempornkul, N.M. Bello, R.G. Amachawadi
Journal of Animal Science
October 2018
Vol. 96, Issue 12, Pg. 5166-5178
doi.org/10.1093/jas/sky370

18-310-S 2018 Cattlemen's Day Research Report
E.A. Boyle and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 1
newprairiepress.org/kaesrr/vol4/iss1/

18-311-J Test duration for water intake, ADG, and DMI in beef cattle
C.M. Ahlberg, K. Allwardt, A. Broocks, K. Bruno, L. McPhillips, A. Taylor, C.R. Krehbiel, M. Calvo-Lorenzo, C.J. Richards, S.E. Place, U. DeSilva, D.L. VanOverbeke, R.G. Mateescu, L.A. Kuehn, R.L. Weaber, J.M. Bormann, M.M. Rolf
Journal of Animal Science
May 2018
Vol. 96, Issue 8, Pg. 3043-3054
doi.org/10.1093/jas/sky209

18-313-J Animal factors associated with core body temperature of nonlactating dairy cows during summer
A.L.A. Scanavez, B. Fragomeni, L.G.D. Mendonça
Journal of Animal Science
August 2018
Vol. 96, Issue 12, Pg. 5000-5009
doi.org/10.1093/jas/sky353

18-323-J Control of *Bacillus cereus* populations in brown rice by use of common foodservice cooling methods
L. Beardall, P. Paez, R.K. Phebus, T. Watkins, S.E. Gragg
Food Protection Trends
March 2019
Vol. 39, Issue 2, Pg. 145-153

18-326-J Effect of standardized ileal digestible lysine and added copper on growth performance, carcass characteristics, and fat quality of finishing pigs
K.F. Coble, F. Wu, J.M. DeRouchey, M.D. Tokach, S.S. Dritz, R.D. Goodband, J.C. Woodworth, J.L. Usry
Journal of Animal Science
May 2018
Vol. 96, Issue 8, Pg. 3249-3263
doi.org/10.1093/jas/sky184

18-327-J Application of front-face fluorescence spectroscopy as a tool for monitoring changes in milk protein concentrate powders during storage
K.S. Babu, J.K. Amamcharla
Journal of Dairy Science
December 2018
Vol. 101, Issue 12, Pg. 10844-10859
doi.org/10.3168/jds.2018-14885

18-340-J Effect of diet type and added copper on growth performance, carcass characteristics, energy digestibility, gut morphology, and mucosal mRNA expression of finishing pigs
K.F. Coble, D.D. Burnett, J.M. DeRouchey, M.D. Tokach, J.M. Gonzalez, F. Wu, S.S. Dritz, R.D. Goodband, J.C. Woodworth, J.R. Pluske
Journal of Animal Science
May 2018
Vol. 96, Issue 8, Pg. 3288-3301
doi.org/10.1093/jas/sky196

18-344-S 2018 Hays Roundup Research Report
Keith Harmoney and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 2
newprairiepress.org/kaesrr/vol4/iss2/

18-355-J Standardized total tract digestible phosphorus requirement of 6 to 13 kg pigs fed diets with or without phytase
F. Wu, J.C. Woodworth, M.D. Tokach, S.S. Dritz, J.M. DeRouchey, R.D. Goodband, J.R. Bergstrom
animal
November 2018
Vol. 13, Issue 11, Pg. 2473-2482
doi.org/10.1017/S1751731119000922

18-356-J *Megasphaera elsdenii* attenuates lactate accumulation in cultures of equine cecal microorganisms provided with starch or oligofructose
T.L. Douthit, H.R. Leventhal, S. Uwituze, M.Y. Halpin, A.L. Araújo Lopes, J.S. Drouillard
Journal of Equine Veterinary Science
March 2019
Vol. 74, Pg. 1-8
doi.org/10.1016/j.jevs.2018.12.013

18-359-J Composition, forage production, and costs are variable in three-way cover crop mixes as a fall forage
J.K. Farney, G.F. Sassenrath, C.J. Davis, D. Presley
Crops, Forage, and Turfgrass Management
October 2018, Vol. 4, No. 1
doi:10.2134/cftm2018.03.0020

18-361-J Influence of milk protein concentrates with modified calcium content on the enteral dairy beverage formulation: Storage stability
K. Pandalaneni, K. Bhanduriya, J.K. Amamcharla, C. Marella, L.E. Metzger
Journal of Dairy Science
January 2019
Vol. 102, Issue 1, Pg. 155-163
doi.org/10.3168/jds.2018-15239

18-363-J Evaluating the crystallization of lactose at different cooling rates from milk and whey permeates in terms of crystal yield and purity
K. Pandalaneni, J.K. Amamcharla
Journal of Dairy Science
July 2018
Vol. 101, Issue 10
doi.org/10.3168/jds.2018-14846

18-364-J Dietary supplementation of *Scutellaria baicalensis* extract during early lactation decreases milk somatic cells and increases whole lactation milk yield in dairy cattle
Z. Su, S. Jin, D. Zhang, G. Bai
PlosOne
January 2019, Vol. 14
doi.org/10.1371/journal.pone.0210744

18-369-J Plant flavonoids to improve productivity of ruminants -A review
K.E. Olagaray, B.J. Bradford
Animal Feed Science and Technology
May 2019
Vol. 251, Pg. 21-36
doi.org/10.1016/j.anifeedsci.2019.02.004

18-371-J Environmental effects on water intake and water intake prediction in growing beef cattle
C.M. Ahlberg, K. Allwardt, A. Broocks, K. Bruno, L. McPhillips, A. Taylor, C.R. Krehbiel, M.S. Calvo-Lorenzo, C.J. Richards, S.E. Place, U. DeSilva, D.L. VanOverbeke, R.G. Mateescu, L.A. Kuehn, R.L. Weaber, J.M. Bormann, M.M. Rolf
Journal of Animal Science
October 2018
Vol. 96, Issue 10, Pg. 4368-4384
doi.org/10.1093/jas/sky267

18-375-J Grassland bird and butterfly responses to sericea lespedeza control via late-season grazing pressure
S. Ogden, D. A. Haukos, K.C. Olson, J. Lemmon, J. Alexander, G. Gatson, W. Fick
The American Midland Naturalist
May 2019
Vol. 181, Issue 2, Pg. 147-169
doi.org/10.1674/0003-0031-181.2.147

18-387-J Effects of sodium metabisulfite additives on nursery pig growth
D.J. Shawk, S.S. Dritz, R.D. Goodband, M.D. Tokach, J.C. Woodworth, J.M. DeRouchey
Translational Animal Science
January 2019
Vol. 3, Issue 1, Pg. 103-112
doi.org/10.1093/tas/txy098

18-388-J Effects of added dietary salt on pig growth performance
D.J. Shawk, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.M. DeRouchey, J.C. Woodworth, A.B. Lerner, H.E. Williams
Translational Animal Science
October 2018
Vol. 1, Issue 4, Pg. 396-406
doi.org/10.1093/tas/txy085

18-389-J Evaluation of dietary electrolyte balance on nursery pig performance
A.M. Jones, F. Wu, J.C. Woodworth, S.S. Dritz, M.D. Tokach, J.M. DeRouchey, R.D. Goodband
Translational Animal Science
July 2018
Vol. 3, Issue 1, Pg. 378-383
doi.org/10.1093/tas/txy090

18-486-J Botanical composition of yearling-steer and mature-ewe diets in the Kansas Flint Hills
C.A. Sowers, G.A. Gatson, J.D. Wolf, W.H. Fick, K.C. Olson
Range Ecology & Management
January 2019
Vol. 72, Issue 1, Pg. 126-135
doi.org/10.1016/j.rama.2018.09.003

18-493-J Effects of standardized ileal digestible histidine to lysine ratio on growth performance of 7- to 11-kg nursery pigs
H.S. Cemin, C.M. Vier, M.D. Tokach, S.S. Dritz, K.J. Touchette, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4713-4722
doi.org/10.1093/jas/sky319

18-497-J Effects of sodium salicylate on glucose kinetics and insulin signaling in postpartum dairy cows
S.R. Montgomery, L.K. Mamedova, M. Zachut, G. Kra, S. Häussler, M. Vaughn, J. Gonzalez, B.J. Bradford
Journal of Dairy Science
February 2019, Pg. 1617-1629
doi.org/10.3168/jds.2018-15312

18-501-J Effect of roller mill configuration on growth performance of nursery and finishing pigs and milling characteristics
J.T. Gebhardt, C.B. Paulk, M.D. Tokach, J.M. DeRouchey, R. D. Goodband,J.C. Woodworth, J.A. DeJong, K.F. Coble, C.R. Stark, C.K. Jones, S.S. Dritz
Journal of Animal Science
April 2018
Vol. 96, Issue 6, Pg. 2278-2292
doi.org/10.1093/jas/sky147

18-505-J Feed batch sequencing to decrease the risk of porcine epidemic diarrhea virus (PEDV) cross-contamination during feed manufacturing
L.L. Schumacher, R.A. Cochrane, A.R. Huss, J.T. Gebhardt, J.C. Woodworth, C.R. Stark, C.K. Jones, J. Bai, R.G. Main, Q. Chen, J. Zhang, P.C. Gauger, J.M. DeRouchey, R.D. Goodband, M.D. Tokach, S.S. Dritz
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4562-4570
doi.org/10.1093/jas/sky320

18-506-J Evaluation of the effects of flushing feed manufacturing equipment with chemically treated rice hulls on porcine epidemic diarrhea virus cross-contamination during feed manufacturing
J.T. Gebhardt, R.C. Cochrane, J.C. Woodworth, C.K. Jones, M.C. Niederwerder, M.B. Muckey, C.R. Stark, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J. Bai, P.C. Gauger, Q. Chen, J.J. Zhang, R.G. Main, and S.S. Dritz
Jounrnal of Animal Science
July 2018
Vol. 96, Issue 10, Pg. 4149-4158
doi.org/10.1093/jas/sky295

18-507-J Determining the impact of commercial feed additives as potential porcine epidemic diarrhea virus mitigation strategies as determined by polymerase chain reaction analysis and bioassay
J.T. Gebhardt, J.C. Woodworth, C.K. Jones, M.D. Tokach, P.C. Gauger, R.G. Main, J. Zhang, Q. Chen, J.M. DeRouchey, R.D. Goodband, C.R. Stark, J.R. Bergstrom, J. Bai, S.S. Dritz
Translational Animal Science
August 2018
Vol. 3, Issue 1, Pg. 93-102

18-514-J Dietary zinc-amino acid complex does not affect markers of mammary epithelial integrity and heat stability of milk in mid-lactating cows
J. Shaffer, L.K. Mamedova, J.M. DeFrain, K. Pandalaneni, J.K. Amamcharla, C.S. Takiya, B.J. Bradford
Biological Trace Element Research
October 2018
Vol. 190, Pg. 349-357
doi.org/10.1007/s12011-018-1556-y

18-518-J Technical note: Assessment of sampling technique from feeders for copper, zinc, calcium, and phosphorous analysis
A.M. Jones, J.C. Woodworth, C.I. Vahl, M.D. Tokach, R.D. Goodband, S.S. Dritz
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4611-4617
doi.org/10.1093/jas/sky347

18-521-J Determining the influence of chromium propionate and *Yucca schidigera* on growth performance and carcass composition of pigs housed in a commercial environment
J.T. Gebhardt, J.C. Woodworth, M.D. Tokach, J.M. Derouchey, R.D. Goodband, J.A. Loughmiller, A.L.P. de Souza, M.J. Rincker, S.S. Dritz
Translational Animal Science
August 2019
Vol. 3, Issue 4, Pg. 175-1285
doi.org/10.1093/tas/txz117

18-603-J Effect of cobalt chloride on fermentation of alfalfa and smooth bromegrass hays by horse cecal microorganisms
L.K. Fehlberg, J.M. Lattimer, J.S. Drouillard, T.L. Douthit
Journal of Equine Veterinary Science
June 2019
Vol. 77, Pg. 75-79
doi.org/10.1016/j.jevs.2019.02.020

18-609-J Short communication: Evaluation of 2 implants for growing steers grazing tall-grass prairie when using intensive early stocking
J.K. Farney, M. Corrigan
Applied Animal Science
February 2019
Vol. 35, Issue 1, Pg. 83-87
doi.org/10.15232/aas.2018-01768

18-635-J Novel formulated fortified blended foods result in improved protein efficiency and hepatic iron concentrations compared with corn-soy blend plus in broiler chickens
N.M. Fiorentino, K.A. Kimmel, H.A.R. Suleria, M. Joseph, S. Alavi, R.S. Beyer, B.L. Lindshield
Current Developments in Nutrition
December 2018
Vol. 2, Issue 12
doi.org/10.1093/cdn/nzy073

19-013-J Effect of dietary supplementation with long-chain n-3 fatty acids during late gestation and early lactation on mare and foal plasma fatty acid composition, milk fatty acid composition, and mare reproductive variables
J.M. Kouba, T.A. Burns, S.K. Webel
Animal Reproduction Science
April 2019
Vol. 203, Pg. 33-44
doi.org/10.1016/j.anireprosci.2019.02.005

19-015-J Effects of sodium and chloride source and level on nursery pig growth performance
D.J. Shawk, M.D. Tokach, R.D. Goodband, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, A.B. Lerner, F. Wu, C.M, Vier, M.M. Moniz, K.N. Nemechek
Journal of Animal Science
February 2019
Vol. 97, Issue 2, Pg. 745-755
doi.org/10.1093/jas/sky429

19-017-J A retrospective analysis of seasonal growth patterns of nursery and finishing pigs in commercial production
F. Wu, J. Liao, M.D. Tokach, S.S. Dritz, J.C. Woodworth, R.D. Goodband, J.M. DeRouchey, C.I. Vahl, H.I. Calderón-Cartagena, D.L. Van De Stroet
Journal of Swine Health and Production
2019
Vol. 27, Issue 1, Pg. 19-33
www.aasv.org/shap/issues/v27n1/v27n1p19.pdf

19-019-J Effects of a high-energy programmed feeding protocol on nutrient digestibility, health, and performance of newly received growing beef cattle
T.J. Spore, S.P. Montgomery, E.C. Titgemeyer, G.A. Hanzlicek, C.I. Vahl, T.G. Nagaraja, K.T. Cavalli, W.R. Hollenbeck, R.A. Wahl, D.A. Blasi
Applied Animal Science
August 2019
Vol. 35, Issue 4, Pg. 397-407
doi.org/10.15232/aas.2019-01853

19-049-J Strategy to blend leftover finisher feed to nursery pigs in a wean-to-finish production system
F. Wu, K.F. Coble, C.W. Hastad, M.D. Tokach, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, R.D. Goodband
Translational Animal Science
January 2019
Vol. 3, Issue 1, Pg. 408-418
doi.org/10.1093/tas/txy143

19-053-J Prediction of total protein and intact casein in cheddar cheese using a low-cost handheld near-infrared spectrometer
Y.B. Ma, K.S. Babu, J.K. Amamcharla
LWT
July 2019
Vol. 109, Pg. 319-326
doi.org/10.1016/j.lwt.2019.04.039

19-058-J Evaluation of marbling and enhancement's abilities to compensate for reduced beef palatability at elevated degrees of doneness
L.N. Drey, L.L. Prill, B.A. Olson, E.A. Rice, J.M. Gonzalez, J.L. Vipham, T.A. Houser, E.A.E. Boyle, T.G. O'Quinn
Journal of Animal Science
November 2018
Vol. 97, Issue 2, Pg. 669-686
doi.org/10.1093/jas/sky435

19-066-J Effects of sodium caseinate on hindgut fermentation and fiber digestion in horses
K.V. Jordan, J.S. Drouillard, T.L. Douthit, J.M. Lattimer
Journal of Animal Science
February 2019
Vol. 97, Issue 2, Pg. 813-819
doi.org/10.1093/jas/sky436

19-078-J Spatial relationships of ovarian follicles and luteal structures in dairy cows subjected to ovulation synchronization: Progesterone and risks for luteolysis, ovulation, and pregnancy
J.S. Stevenson
Journal of Dairy Science
April 2019
Vol. 102, Issue 6, Pg. 5686-5698
doi.org/10.3168/jds.2018-16036

19-089-S 2018 Dairy Research Report
B. Bradford and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 10
https://newprairiepress.org/kaesrr/vol4/iss10/

19-090-S 2019 Cattlemen's Day Research Report
E.A. Boyle and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 1
newprairiepress.org/kaesrr/vol5/iss1/

19-091-S 2018 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 9
https://newprairiepress.org/kaesrr/vol4/iss9/

19-095-J The effects of soybean hulls level, distillers dried grains with solubles, and net energy formulation on nursery pig performance
D.L. Goehring, F. Wu, J.M. DeRouchey, R.D. Goodband, M.D. Tokach, J.C. Woodworth, C.B. Paulk, S.S. Dritz
Translational Animal Science
July 2019
Vol. 3, Issue 4, Pg. 1335-1348
doi.org/10.1093/tas/txz126

19-099-J The effects of maternal dietary supplementation of cholecalciferol (vitamin D_3) and 25(OH)D_3 on sow and progeny performance
M.T. Thayer, J.L. Nelssen, A.J. Langemeier, J.M. Morton, J.M. Gonzalez, S.R. Kruger, Z.Ou, A.J. Makowski, J.R. Bergstrom
Translational Animal Science
March 2019
Vol. 3, Issue 2, Pg. 692-708
doi.org/10.1093/tas/txz029

19-105-J Optimum dietary standardized ileal digestible lysine and crude protein concentration for growth and carcass performance in finishing pigs greater than 100 kg
J.A. Soto, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband, F. Wu
Journal of Animal Science
April 2019
Vol. 3, Issue 4, Pg. 1701-1711
doi: 10.1093/jas/skz052

19-110-J Regression analysis to predict the impact of dietary neutral detergent fiber on carcass yield in swine
J.A. Soto, M.D. Tokach, S.S. Dritz, M.A.D. Gonçalves, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband, M.B. Mengat, F. Wu
Translational Animal Science
July 2019
Vol. 3, Issue 4, Pg. 1270-1274
doi.org/10.1093/tas/txz113

19-113-J Effect of *Saccharomyces cerevisiae* fermentation product on feed intake parameters, lactation performance, and metabolism of transition dairy cattle
K.E. Olagaray, S.E. Sivinski, B.A. Saylor, L.K. Mamedova, J.A. Sauls-Hiesterman, I. Yoon, B.J. Bradford
Journal of Dairy Science
July 2019
Vol. 102, Issue 9, Pg. 8092-8107
doi.org/10.3168/jds.2019-16315

19-130-J Birth weight threshold for identifying piglets at-risk for pre-weaning mortality
J.A. Feldpausch, J. Jourquin, J.R. Bergstrom, J.L. Bargen, C.D. Bokenkroger, D.L. Davis, J.M. Gonzalez, J.L. Nelssen, C.L. Puls, W.E. Trout, M.J. Ritter
Translational Animal Science
March 2019
Vol. 3 Issue 2, Pg. 633-640
doi.org/10.1093/tas/txz076

19-145-J Impact of fungicide and insecticide use on wheat production in a high-rainfall environment
G.F. Sassenrath, J. Farney, R. Lollato
Crops, Forage & Turfgrass Management
October 2019
Vol. 5, Issue 1, Pg. 1-10
doi.org/10.2134/cftm2019.01.0008

19-168-J Determination of heterocyclic amines in meat matrices using enhanced matrix removal-lipid extraction and liquid chromatography-tandem mass spectrometry
Z. Linghu, F. Karim, M. Taghvaei, J.S. Smith
Journal of Food Science
July 2019
Vol. 84, Issue 7, Pg. 1992-2002
doi.org/10.1111/1750-3841.14674

19-180-J Effects of increasing dietary zinc on growth performance and carcass characteristics of pigs raised under commercial conditions
H.S. Cemin, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband, J.L. Usry
Translational Animal Science
March 2019
Vol. 3, Issue 2, Pg. 731-736
doi.org/10.1093/tas/txz054

19-189-J The effects of dietary soybean hulls particle size and diet form on nursery and finishing pig performance
D.L. Goehring, F. Wu, J.M. DeRouchey, R.D. Goodband, M.D. Tokach, J.C. Woodworth, C.B. Paulk, S.S. Dritz
Translational Animal Science
November 2019
Vol. 4, Issue 1
doi.org/10.1093/tas/txz119

19-198-J Determining the influence of chromium propionate and *Yucca schidigera* on growth performance and carcass composition of pigs housed in a commercial environment
J.T. Gebhardt, J.C. Woodworth, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J.A. Loughmiller, A.L.P. de Souza, M.J. Rincker, S.S. Dritz
Translational Animal Science
August 2019
Vol. 3, Issue 4, Pg. 1275-1285
doi.org/10.1093/tas/txz117

19-217-J Diet formulation method influences the response to increasing net energy in finishing pigs
D.A. Marçal, C.Kiefer, M.D. Tokach, S.S. Dritz, J.C. Woodworth, R.D. Goodband, H.Cemin, J.M. DeRouchey
Translational Animal Science
July 2019
Vol. 3, Issue 4, Pg. 1349-1358
doi.org/10.1093/tas/txz147

19-219-J Physiological, health, lactation and reproductive traits of cooled dairy cows classified as having high or low core body temperature during the dry period
A.L.A. Scanavez, B.E. Voelz, J.G.N. Moraes, J.A. Green, L.G.D. Mendonça
Journal of Animal Science
December 2019
Vol. 97, Issue 12, Pg. 4792-4802
doi.org/10.1093/jas/skz345

19-221-J Immunocrit, colostrum intake, and pre-weaning body weight gain in piglets after split suckling based on birth weight or birth order
J.M. Morton, A.J. Langemeier, T. Rathbun, D.L. Davis
Translational Animal Science
July 2019
Vol. 3, Issue 4, Pg. 1460-1465
doi.org/10.1093/tas/txz131

19-223-J A shortened resynchronization treatment for dairy cows after a nonpregnancy diagnosis
J.A. Sauls-Hiesterman, B.E. Voelz, J. S. Stevenson
Theriogenology
January 2020
Vol. 141, Pg. 105-112
doi.org/10.1016/j.theriogenology.2019.09.013

19-227-J Pork carcass extended hanging time effect on the microbiological characteristics of vacuum packaged blade steak
F. Najar, E. Boyle, T. Houser, R. Phebus, C. Vahl, J. Wolf, J. Gonzalez, T. O'Quinn, D. Vega
Meat and Muscle Biology
April 2019, Vol. 2, Issue 2
doi:10.221751/rmc2018.085

19-231-J Smoked sugar improves flavor stability of frozen, sliced, food service bacon
A. Hobson, J. Gonzalez, T. O'Quinn, E.A. Boyle, J. Scott Smith, F. Karim, C. Vahl, R. Johnson, T. Houser
Meat and Muscle Biology
October 2019
Vol. 3, No. 1, Pg. 356-366
doi:10.22175/mmb2019.06.0020

19-236-J Front-face fluorescence spectroscopy combined with chemometrics to detect high proteinaceous matters in milk and whey ultrafiltration permeate
Y.B. Ma, J.K. Amamcharla
Journal of Dairy Science
October 2019
Vol. 102, Issue 10, Pg. 8756-8767
doi.org/10.3168/jds.2019-16810

19-237-J Characterization of water intake and water efficiency in beef cattle
C.M. Ahlberg, K. Allwardt, A. Broocks, K. Bruno, A. Taylor, L. McPhillips, C.R. Krehbiel, M. Calvo-Lorenzo, C.J. Richards, S.E. Place, U. DeSilva, D.L. Vanoverbeke, R.G. Mateescu, L. A. Kuehn, R. Weaber, J. Bormann, M.M. Rolf
Journal of Animal Science
November 2019
Vol. 97, Issue 12, Pg. 4770-4782
doi.org/10.1093/jas/skz354

19-239-J Fatty acid composition, proximate analysis, and consumer sensory evaluation of United States retail grass-fed ground beef
F. Najar-Villarreal, E.A.E. Boyle, R.D. Danler, T.G. O'Quinn, T.A. Houser, J.M. Gonzalez
Meat and Muscle Biology
2019, Vol. 3, Issue 1
doi.org/10.22175/mmb2019.06.0018

19-240-J Evaluation of heating effects on the morphology and membrane structure of *Escherichia coli* using electron paramagnetic resonance spectroscopy
B. Tonyali, A. McDaniel, V. Trinetta, U. Yucel
Biophysical Chemistry
September 2019, Vol. 252
doi.org/10.1016/j.bpc.2019.106191

19-241-J Formulation and development of lipid nanoparticle antifungal packaging films to control postharvest disease
A. McDaniel, B. Tonyali, U. Yucel, V. Trinetta
Journal of Agriculture and Food Research
December 2019, Vol. 1
doi.org/10.1016/j.jafr.2019.100013

19-244-J Meta-regression analysis to predict the influence of branched-chain and large neutral amino acids on growth performance of pigs
H.S. Cemin, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband
Journal of Animal Science
April 2019
Vol. 97, Issue 6, Pg. 2505-2514
doi.org/10.1093/jas/skz118

19-253-J Associations between body condition score at parturition and microRNA profile in colostrum of dairy cows as evaluated by paired mapping programs
C.M. Ylioja, M.M. Rolf, L.K. Mamedova, B.J. Bradford
Journal of Dairy Science
December 2019, Vol. 102, Issue 12
doi.org/10.3168/jds.2019-16675

19-255-J Proteomic analysis reveals greater abundance of complement and inflammatory proteins in subcutaneous adipose tissue from postpartum cows consuming sodium salicylate
C.S. Takiya, S.R. Montgomery, L.K. Mamedova, G. Kra, Y. Levin, S.D. Fleming, B.J. Bradford, M. Zachut
Journal of Proteomics
June 2019
204:103399
doi: 10.1016/j.jprot.2019.103399

19-258-J An analysis of cellulose- and dextrose-based radicals in sweet potatoes as irradiation markers
B. Tonyali, C. Sommers, O. Ceric, J.S. Smith, U. Yucel
Journal of Food Science
September 2020
Vol. 85, Issue 9, Pg. 2745-2753
doi-org.er.lib.k-state.edu/10.1111/1750-3841.15359

19-261-J Physiologic responses to feeding rumen-protected glucose to lactating dairy cows
J.A. Sauls-Hiesterman, S. Banuelos, B. Atanasov, B.J. Bradford, J.S. Stevenson
Animal Reproductive Science
May 2020, Vol 216
doi.org/10.1016/j.anireprosci.2020.106346

19-262-J Effects of zinc source and level on growth performance and carcass characteristics of finishing pigs
H.S. Cemin, C.B. Carpenter, J.C. Woodworth, M.D. Tokach, S.S. Dritz, J.M. DeRouchey, R.D. Goodband, J.L. Usry
Translational Animal Science
March 2019, Vol. 3 Issue 2
doi.org/10.1093/tas/txz071

19-265-J Branched-chain amino acid interactions in growing pig diets
H.S. Cemin, M.D. Tokach, J.C. Woodworth, S.S. Dritz, J.M. DeRouchey, R.D. Goodband
Translation Animal Science
July 2019, Vol. 3 Issue 4
doi.org/10.1093/tas/txz087

19-266-J Effects of standardized total tract digestible phosphorus requirements of 11- to 23-kg pigs fed diets with or without phytase
C.M. Vier, S.S. Dritz, F. Wu, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, M.A.D. Gonçalves, U.A.D. Orlando, J.C. Woodworth
Journal of Animal Science
October 2019
Vol. 97 Issue 10
doi.org/10.1093/jas/skz255

19-277-J Following the smoke signals: Inflammatory signaling in metabolic homeostasis and homeorhesis in dairy cattle
B. Bradford and T. Swartz
animal
March 2020
Vol. 14, Issue S1. Pg. 144-154
doi.org/10.1017/S1751731119003203

19-281-J Effects of oral administration of *Bacillus subtilis* C-3102 to nursing piglets on pre-weaning growth performance, fecal consistency, and fecal microbes
M.B. Menegat, J.M. DeRouchey, J.C. Woodworth, M.D. Tokach, R.D. Goodband, S.S. Dritz
Journal of Swine Health and Production
September 2019
Vol. 28, Issue 1, Pg. 12-20
https://www.aasv.org/shap/issues/v28n1/v28n1p12.html

19-282-J Effects of standardized total tract digestible phosphorus on growth performance of 11- to 23- kg pigs fed diets with or without phytase
C.M. Vier, S.S. Dritz, F. Wu, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, M.A.D. Gonçalves, U.A.D. Orlando, J.C. Woodworth
Journal of Animal Science
October 2019
Vol. 97, Issue 10, Pg. 4032-4040
doi.org/10.1093/jas/skz255

19-283-J Calcium to phosphorus ratio requirement of 26- to 127- kg pigs fed diets with or without phytase
C.M. Vier, S.S. Dritz, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, M.A.D. Gonçalves, U.A.D. Orlando, J. Bergstrom, J.C. Woodworth
Journal of Animal Science
August 2019
Vol. 97, Issue 10, Pg. 4041-4052
doi.org/10.1093/jas/skz257

19-284-J Effects of *Bacillus subtilis* C-3102 on sow and progeny performance, fecal consistency, and fecal microbes during gestation, lactation, and nursery periods
M.B. Menegat, J.M. DeRouchey, J.C. Woodworth, S.S. Dritz, M.D. Tokach, R.D. Goodband
Journal of Animal Science
September 2019, Vol. 97, Issue 9
doi.org/10.1093/jas/skz236

19-286-S 2019 Southeast Agricultural Research Center Agricultural Research Report
L. Lomas and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 2
newprairiepress.org/kaesrr/vol5/iss2/

19-304-J The effect of altering feed formula, processing, and supplements on *Clostridium spp*. in broilers using the Fung Double Tube method
M.A. Barrios, J.K. Saini, C.M. Rude, R.S. Beyer, D.Y.C. Fung
International Journal of Poultry Science
2019, Vol. 18, Issue 11
doi: 10.3923/ijps.2019.544.554

19-305-J Efficacy of corn dried distillers grains with solubles as a replacement for soybean meal in a Boer goat diet
R.J. Sorensen, S.C. Stewart, C.K. Jones, A.R. Crane, T.G. Nagaraja, J.M. Lattimer
Journal of Animal Science
July 2019, Vol. 97
doi.org/10.1093/jas/skz122.286

19-306-J Digestibility of diets containing calcium salts of fatty acids or soybean oil in horses
L.K. Fehlberg, J.M. Lattimer, C.I. Vahl, J.S. Drouillard, T.L. Douthit
Translation Animal Science
January 2020, Vol. 4 Issue 1
doi.org/10.1093/tas/txaa001

19-307-J Effects of ruminally-protected lysine and *Megasphaera elsdenii* on performance and carcass characteristics of finishing cattle
V. de Aguiar Veloso, L. Horton, A. Baker, C. Aperce, J. Drouillard
Journal of Animal Science
July 2019
Vol. 97, Issue supplement 2
doi.org/10.1093/jas/skz122.238

19-315-J Estimate of the energy value of soybean meal relative to corn based on growth performance of nursery pigs
H.S. Cemin, H.E. Williams, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband, K.F. Coble, B.A. Carrender, M.J. Gerhart
Journal of Animal Science and Biotechnology
July 2020
Vol. 11, Article No. 70
doi.org/10.1186/s40104-020-00474-x

19-316-J Effects of soybean meal level on growth performance of 11- to 25-kg nursery pigs
H.S. Cemin, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband
Translational Animal Science
May 2020
doi.org/10.1093/tas/txaa053

19-324-J Amino acids effects on heterocyclic amines formation and physiochemical properties in pan-fried beef patties
Z. Linghu, F. Karim, M. Taghvaei, T.A. Houser, J.S Smith
Journal of Food Science
April 2020
Vol. 85, Issue 4, Pg. 1361-1370
doi.org/10.1111/1750-3841.15078

19-331-J Release kinetics of cinnamaldehyde, eugenol, and thymol from sustainable and biodegradable active packaging films
B. Tonyali, A. McDaniel, J. Amamcharla, V. Trinetta, U. Yucel
Food Packaging and Shelf Life
June 2020, Vol. 24
doi.org/10.1016/j.fpsl.2020.100484

Apparel, Textiles, and Interior Design

17-111-A Pounded plants on cotton: Methods, outcomes, and colorfastness of post-treatments
S. Haar, K. Doty
10th International Shibori Symposium
November 2016
http://hdl.handle.net/2097/38426

17-112-A The 10th International Shibori Symposium Official Proceedings 2016
S. Haar
10th International Shibori Symposium
November 2016
https://10thiss.wordpress.com/

Biochemistry and Molecular Biophysics

17-030-J Membrane interacting peptides: A review
A.I. Herrera, J.M. Tomich, O. Prakash
Current Protein and Peptide Science
2016, Vol. 17, Issue 8
doi.org/10.2174/1389203717666160526123821

17-108-J Glycolipid ranking of bread quality hard wheat breeding stock cultivars by tandem mass spectrometry of total lipid extract
M.D. Boatwright, A.K. Fritz, D.L. Wetzel
Cereal Research Communications
February 2017
Vol. 45, Issue 1, Pg. 139-145
doi.org/10.1556/0806.45.2017.001

18-049-J Characterization of dye-decolorizing peroxidase (DyP) from *Thermomonospora curvata* reveals unique catalytic properties of A-type DyPs
C. Chen, R. Shrestha, K. Jia, P.F. Gao, B.V. Geisbrecht, S.H. Bossmann, J. Shi, P. Li
Journal of Biological Chemistry
July 2015
Vol. 290, Pg. 23447-23463
doi: 10.1074/jbc.M115.658807

18-163-J Seed yield and oil quality as affected by Camelina cultivar and planting date
E. Obeng, A.K. Obour, N.O. Nelson, J.A. Moreno, I.A. Ciampitti, D. Wang, T.P. Durrett
Journal of Crop Improvement
January 2019
Vol. 33, Issue 2, Pg. 202-222
doi.org/10.1080/15427528.2019.1566186

18-274-J The *Manduca sexta* serpinome: Analysis of serpin genes and proteins in the tobacco hornworm
M. Li, J.M. Christen, N.T. Dittmer, X. Cao, X. Zhang, H. Jiangb, M.R. Kanost
Insect Biochemistry and Molecular Biology
November 2018
Vol. 102, Pg. 21-30
doi.org/10.1016/j.ibmb.2018.09.008

18-332-J Towards the synthetic design of camelina oil enriched in tailored acetyl-triacylglycerols with medium-chain fatty acids
S. Bansal, HJ. Kim, GN. Na, M. Hamilton, E.B. Cahoon, C. Lu, T.P. Durrett
Journal of Experimental Botany
August 2018
Vol. 69, Issue 18, Pg. 4395-4402
doi.org/10.1093/jxb/ery225

18-623-J Interaction of substrate-mimicking peptides with the AAA+ ATPase ClpB from *Escherichia coli*
C.B. Ranaweera, P. Glaza, T. Yang, M. Zolkiewski
Archives of Biochemistry and Biophysics
October 2018
Vol. 655, Pg. 12-17
doi.org/10.1016/j.abb.2018.08.002

19-005-J Synthesis and characterization of multifunctional branched amphiphilic peptide bilayer conjugated gold nanoparticles
P. Natarajan, P. Sukthankar, J. Changstrom, C.S. Holland, S. Barry, W.B. Hunter, C.M. Sorensen, J.M. Tomich
ACS-Omega
September 2018
Vol. 3, Issue 9, Pg. 11701-11083
doi:10.1021/acsomega.8b01633

19-064-J The plastid lipase PLIP1 is critical for seed viability in diacylglycerol acyltransferase 1 mutant seed
K. Aulakh and T.P. Durrett
Plant Physiology
June 2019
Vol. 180, Issue 4, Pg. 1962-2974
doi.org/10.1104/pp.19.00600

19-296-J Making glue from seeds and gums: working with plant-based polymers to introduce students to plant biochemistry
T. Mukherjee, R. Lerma-Reyes, K.A. Thompson, K. Schrick
Biochemistry and Molecular Biology Education
May 2019
Vol. 47 Issue 4, Pg. 468-475
doi.org/10.1002/bmb.21252

19-332-J Expression and characterization of *Manduca sexta* stress responsive peptide-1, an inducer of antimicrobial peptide synthesis
L.G. Schrag, X. Cao, H. Dembele, X. Liu, Q.A. Souhail, M.R. Kanost, J. Chen, H. Jiang, O. Prakash
Biochemistry and Molecular Biology
August 2019
Vol. 4 Issue 3
doi: 10.11648/j.bmb.20190403.12

19-333-J Biodegradable drug-delivery peptide nano-capsules
E. Wessel, J.M. Tomich, R.B. Todd
ACS-Omega
November 2019
Vol. 4, Issue 22, Pg. 20059-20063
doi.org/10.1021/acsomega.9b03245

Biological and Agricultural Engineering

17-174-J Impacts of incorporating dominant crop rotation patterns as primary land use change on hydrologic model performance
J. Gao, A.Y. Sheshukov, H. Yen, J. Kastens, D. Peterson
Agriculture, Ecosystems and Environment
September 2017
Vol. 247, Pg. 33-42
doi.org/10.1016/j.agee.2017.06.019

17-325-J Effect of irrigation on physicochemical properties and bioethanol yield of drought tolerant and conventional corn
K. Zhang, B. Pang, I. Kisekka, M. Zhang, D. Rogers, D. Wang
Irrigation Science
2018, Vol. 36, Issue 2
doi.org/10.1007/s00271-017-0563-7

18-014-J Effect of spray drying on the properties of camelina gum isolated from camelina seeds
X. Cao, N. Li, G. Qi, X.S. Sun, D. Wang
Industrial Crops and Products
July 2018
Vol. 117, Pg. 278-285
doi.org/10.1016/j.indcrop.2018.03.017

18-100-J Determination of furfural and 5-hydroxymethylfurfural in biomass hydrolysate by high-performance liquid chromatography
J. Li, Y. Xu, M. Zhang, D. Wang
Energy Fuels
November 2017
Vol. 31, Issue 12, Pg. 13769-13774
doi.org/10.1021/acs.energyfuels.7b02827

18-163-J Seed yield and oil quality as affected by Camelina cultivar and planting date
E. Obeng, A.K. Obour, N.O. Nelson, J.A. Moreno, I.A. Ciampitti, D. Wang, T.P. Durrett
Journal of Crop Improvement
January 2019
Vol. 33, Issue 2, Pg. 202-222
doi.org/10.1080/15427528.2019.1566186

18-166-J Influence of kernel shape and size on the packing density and compressibility of hard red winter wheat
M.C. Petingco, M.E. Casada, R.G. Maghirang, S.A. Thompson, S.G. McNeill, M.D. Montross, A.P. Turner
Transactions of the ASABE
January 2018
Vol. 61, Issue 4, Pg. 1437-1448
doi: 10.13031/trans.12648

18-172-J Rapid determination of acetic acid, furfural and 5-hydroxymethylfurfural in biomass hydrolysate using near-infrared spectroscopy
J. Li, M. Zhang, D. Wang
ACS Omega
May 2018
Vol. 3, Issue 5, Pg. 5355-5361
doi.org/10.1021/acsomega.8b00636

18-182-J Charcoal rot and Fusarium stalk rot diseases influence sweet sorghum sugar attributes
Y.M.A.Y. Bandara, T.T. Tesso, K. Zhang, D. Wang, C.R. Little
Industrial Crops and Products
February 2018
Vol. 112, Pg. 188-195
doi.org/10.1016/j.indcrop.2017.11.012

18-215-S 2018 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
C.R. Thompson, D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1139
Kansas Agricultural Experiment Station

18-242-J High-solid pretreatment of corn stover using urea for enzymatic saccharification
L. Wang, K. Zhang, Y. Xu, M. Zhang, D. Wang
Bioresource Technology
July 2018
Vol. 259, Pg. 83-90
doi.org/10.1016/j.biortech.2018.03.023

18-244-J Iron oxides minimize arsenic mobility in a soil material saturated with saline wastewater
M.B. Galkaduwa, G.M. Hettiarachchi, G.J. Kluitenberg, S.L. Hutchinson
Journal of Environmental Quality
July 2018
Vol. 47, Issue 4, Pg. 873-883
doi.org/10.2134/jeq2018.01.0022

18-262-J Storage losses from large round bales of alfalfa, tall fescue, and big bluestem hay
L. Lomas, J. Slocombe, G. Milliken
Applied Engineering in Agriculture
January 2018
Vol. 32, Issue 2, Pg. 445-454
doi: 10.13031/aea.12681

18-305-J Mitigation of greenhouse gas emissions from animal production
Z. Liu, Y. Liu
Greenhouse Gases: Science and Technology
June 2018
Vol. 8, Pg. 627-638
doi.org/10.1002/ghg.1785

18-309-J Early-season stand count determination in corn via integration of imagery from unmanned aerial systems (UAS) and supervised learning techniques
S. Varela, P. Reddy Dhodda, W.H. Hsu, P. V.V. Prasad, Y. Assefa, N.R. Peralta, T. Griffin, A. Sharda, A. Ferguson, I.A. Ciampitti
Remote Sensing
February 2018, Vol. 10, Issue 2
doi.org/10.3390/rs10020343

18-330-J Physico-chemical characterization of pedigreed sorghum mutant stalks for biofuel production
Y. Xua, J. Li, C. Moore, Z. Xin, D. Wang
Industrial Crops and Products
November 2018
Vol. 124, Pg. 806-811
doi.org/10.1016/j.indcrop.2018.08.049

18-357-J Porosity and drag determination of a single-row vegetative barrier (*Maclura Pomifera*)
H.B. Gonzales, M.E. Casada, L.J. Hagen, J. Tatarko, R.G. Maghirang, C.J. Barden
Transactions of the ASABE
2018
Vol. 61, Issue 2, Pg. 641-651
doi: 10.13031/trans.12338

18-360-J Stored grain pack factor measurements for soybeans, grain sorghum, oats, barley, and wheat
R. Bhadra, M.E. Casada, A.P. Turner, M.D. Montross, S.A. Thompson, S.G. McNeill, R.G. Maghirang, J.M. Boac
Transactions of the American Society of Agricultural and Biological Engineers
2018
Vol. 61, Issue 2, Pg. 747-757
doi: 10.13031/trans.12645

18-378-J Dust reduction efficiency of a single-row vegetative barrier (*Maclura Pomifera*)
H.B. Gonzales, J. Tatarko, M.E. Casada, R.G. Maghirang, L.J. Hagen, C.J. Barden
Transactions of the ASABE
January 2018
Vol. 61, Issue 6, Pg. 1907-1914
doi: 10.13031/trans.12879

18-600-J Influence of kernel shape and size on the packing ratio and compressibility of hard red winter wheat
M.C. Petingco, M.E. Casada, R.G. Maghirang, S.A. Thompson, S.G. McNeill, M.D. Montross, A.P. Turner
Transactions of the ASABE
2018
Vol. 61, Issue 4, Pg. 1437-1448
doi.org/10.13031/trans.12648

19-044-J Validation and assessment of SPoRT-LIS surface soil moisture estimates for water resources management applications
K.R. McDonough, S.L. Hutchinson, J.M.S. Hutchinson, J.L. Case, V. Rahmani
Journal of Hydrology
November 2018
Vol. 566, Pg. 43-54
doi.org/10.1016/j.jhydrol.2018.09.007

19-055-J Evaluation of dynamic uniformity and application efficiency of mobile drip irrigation
T.E. Oker, I. Kisekka, A. Sheshukov, J. Aguilar, D. Rogers
Irrigation Science
September 2019, Vol. 38, Pg. 17-35
doi.org/10.1007/s00271-019-00648-0

19-070-J Optimization of processing parameters to increase thermal conductivity of rice straw fiber film
X. Ming, H. Chen, Q. Lang, D. Wang
Applied Sciences
November 2019, Vol. 9, Issue 21
doi.org/10.3390/app9214645

19-100-S 2019 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1148
Kansas Agricultural Experiment Station

19-149-J Phenology-adjusted dynamic curve number for improved hydrologic modeling
M.E. Muche, S.L. Hutchinson, J.M.S. Hutchinson, J.M. Johnston
Journal of Environmental Management
April 2019
Vol. 235, Pg. 403-413
doi.org/10.1016/j.jenvman.2018.12.115

19-154-A Impacts of water quality on vibration-induced water droplet removal for cooling tower water capture
R. Huber, N. Doughramaji, S. Hutchinson, M. Derby
Proceedings of the 1st Thermal and Fluid Engineering Summer Conference, TFESC
2019
doi: 10.1615/TFEC2019.ewf.027533

19-224-J Targeted, precision irrigation for moving platforms: selected papers from a center pivot technology transfer effort
F.R. Lamm, D.O. Porter, J.P. Bordovsky, S.R. Evett, S.A. O'Shaughnessy, K.C. Stone, W.L. Kranz, D.H. Rogers, P.D. Colaizzi
Transactions of the ASABE
2019
62(5): 1409-1415
doi: 10.13031/trans.13371

19-233-J Evaluation analysis of NASA SMAP L3 and L4 and SPoRT-LIS soil moisture data in the United States
A. Tavakol, V. Rahmani, S.M. Quiring, S.V. Kumar
Remote Sensing of Environment
August 2019, Vol. 229, Pg. 234-246
doi.org/10.1016/j.rse.2019.05.006

19-245-J Computational fluid dynamics simulation of airflow through standing vegetation
H.B. Gonzales, J. Tartarko, M.E. Casada, R.G. Maghirang, L.J. Hagen, C.J. Barden
Trans. American Society of Agricultural and Biological Engineers
2019
Vol. 62, Issue 6, Pg. 1713-1722
doi: 10.13031/trans.13449

19-259-J Response of bioactive phytochemicals in vegetables and fruits to environmental factors
J. Xu, X. Su, Y. Li, X. Sun, D. Wang, W. Wang
European Journal of Nutrition & Food Safety
May 2019
Vol. 9, Issue 3, Pg. 233-247
doi.org/10.9734/ejnfs/2019/v9i330062

19-286-S 2019 Southeast Agricultural Research Center Agricultural Research Report
L. Lomas and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 2
newprairiepress.org/kaesrr/vol5/iss2/

19-298-J Changes in the frequency of humid hot days and nights in the Mississippi River Basin
A. Tavakol, V. Rahmani, J. Harrington Jr.
International Journal of Climatology
January 2020
doi.org/10.1002/joc.6484

19-299-A Changes in the frequency of hot, humid conditions in the Mississippi River Basin
A. Tavakol, V. Rahmani, J. Harrington Jr.
International Journal of Climatology
January 2020
doi.org/10.1002/joc.6484

19-300-A Capability of remote sensing and in situ drought indices for detecting drought and streamflow in the MINK region from 2003-2017
D. Bandad, V. Rahmani
American Society of Biological and Agricultural Engineers Proceedings
2019
doi:10.13031/aim.201901276

19-326-J The freshwater biome gradient framework: predicting macroscale properties based on latitude, altitude, and precipitation
W.K. Dodds, L. Bruckerhoff, D. Batzer, A. Schechner, C. Pennock, E. Renner, F. Tromboni, K. Bigham, S. Grieger
Ecosphere
July 2019, Vol. 10, Issue 7
doi.org/10.1002/ecs2.2786

Division of Biology

16-356-J Density mediates grasshopper performance in response to temperature manipulation and spider predation in tallgrass prairie
A.N. Laws, A. Joern
Bulletin of Entomological Research
April 2017
Vol. 107, Issue 2, Pg. 261-267
doi.org/10.1017/S0007485316000894

18-006-J The importance of core habitat for a threatened species in changing landscapes
M.R. Herse, K.A. With, W.A. Boyle
Journal of Applied Ecology
June 2018
Vol. 55, Pg. 2241-2252
doi.org/10.1111/1365-2664.13234

18-024-J A recent record of a pronghorn in Russell County, Kansas
D.W. Kaufman, R.A. Kaufman, G.A. Kaufman
Transactions of the Kansas Academy of Science
October 2017
Vol. 120, No. 3-4, Pg. 219-222

18-026-J Recent observation of northern river otter along Carr Creek, Osborne County, Kansas
D.W. Kaufman, R.C. Kaufman, G.A. Kaufman
Transactions of the Kansas Academy of Science
October 2017
Vol. 120, No. 3-4, Pg. 215

18-030-J Altitudinal migration: Ecological drivers, knowledge gaps, and conservation implications
A. Hsiung, W.A. Boyle, R.J. Cooper, R.B. Chandler
Biological Reviews
June 2018, Vol. 93, Pg. 2049-2070
doi: 10.1111/brv.12435

18-058-J Mosquito immunobiology: The intersection of vector health and vector competence
L. Bartholomay, K. Michel
Annual Review of Entomology
January 2018
Vol. 63, Issue 145-167
doi.org/10.1146/annurev-ento-010715-023530

18-112-J Small mammals in anthropogenic brome fields as compared to native tallgrass prairie in the northern Flint Hills of Kansas
D.W. Kaufman, G.A. Kaufman
Transactions of the Kansas Academy of Science
October 2017
Vol. 120, No. 3-4, Pg. 157-169

18-113-J Low biodiversity of small mammals in soybean fields in the northern Flint Hills, Kansas
D.W. Kaufman, G.A. Kaufman
Transactions of the Kansas Academy of Science
October 2017
Vol. 120, No. 3-4, Pg. 175-182

18-127-J Alterations in wheat pollen lipidome during high day and night temperature stress
S. Narayanan, P.V.V. Prasad, R. Welti
Plant, Cell & Environment
January 2018
Vol. 41, Issue 8, Pg. 1749-1761
doi.org/10.1111/pce.13156

18-133-J Common condition indices are no more effective than body mass for estimating fat stores in insectivorous bats
L.P. McGuire, L.A. Kelly, D.E. Baloun, W.A. Boyle, T.L. Cheng, J. Clerc, N.W. Fuller, A.R. Gerson, K.A. Jonasson, E.J. Rogers, A.S. Sommers, C.G. Guglielmo
Journal of Mammalogy
September 2018
Vol. 99, Issue 5, Pg. 1065-1071
doi: 10.1093/jmammal/gyy103

18-217-J Sex and deception: a rare case of cheating in a lekking tropical bird
W.A. Boyle, E.H. Shogren
Journal of Ethology
April 2019
Vol. 37, Pg. 151-155
doi.org/10.1007/s10164-019-00592-8

18-224-J Nocturnal reductions in body temperature in high-elevation Neotropical birds
K. Burnett, M.N. Zipple, L.T. Phillips, P. Panwar, L.P. McGuire, W.A. Boyle
Tropical Ecology
December 2019
Vol. 60, Pg. 581-586
doi.org/10.1007/s42965-019-00051-y

18-234-J Apparent survival of tropical birds in a wet, premontane forest in Costa Rica
E.H. Shogren, M.A. Jones, B.K. Sandercock, W.A. Boyle
Journal of Field Ornithol
March 2019
Vol. 90, Issue 2, Pg. 117-127
doi.org/10.1111/jofo.12290

18-304-J Causes and consequences of avian within-season dispersal decisions in a dynamic grassland environment
E.J. Williams, W.A. Boyle
Animal Behaviour
April 2019, Vol. 155, Pg. 77-87
doi.org/10.1016/j.anbehav.2019.06.009

18-375-J Grassland bird and butterfly responses to sericea lespedeza control via late-season grazing pressure
S. Ogden, D.A. Haukos, K.C. Olson, J. Lemmon, J. Alexander, G. Gatson, W. Fick
The American Midland Naturalist
May 2019
Vol. 181, Issue 2, Pg. 147-169
doi.org/10.1674/0003-0031-181.2.147

19-104-J LipidomeDB data calculation environment has been updated to process direct-infusion multiple reaction monitoring data
C. Fruehan, D. Johnson, R. Welti
Lipids
December 2018
Vol. 63, Issue 11-12, Pg. 1019-1020
doi.org/10.1002/lipd.12111

19-129-J Small RNA-Seq analysis reveals miRNA expression dynamics across tissues in the malaria vector, *Anopheles gambiae*
W.B. Bryant, M.K. Mills, B. JSC. Olson, K. Michel
G3: Genes, Genomes, Genetics
May 2019, Vol. 9, Issue 5
doi.org/10.1534/g3.119.400104

19-138-J Rootstocks shape the rhizobiome: Rhizosphere and endosphere bacterial communities in the grafted tomato system
R. Poudel, A. Jumpponen, M. Kennelly, C. Rivard, L. Gomez-Montano, and K. Garrett
Applied and Environmental Microbiology
January 2019, 85:e01765-18
doi.org/10.1128/AEM.01765-18

19-190-J Mosquito-fungus interactions and antifungal immunity
P. Tawidian, V.L. Rhodes, K. Michel
Insect Biochemistry and Molecular Biology
August 2019, Vol. 111
doi.org/10.1016/j.ibmb.2019.103182

19-234-B Freshwater ecology: Concepts and environmental applications of limnology 3rd edition
W. K. Dodds, M. R. Whiles
Elsevier
2019, ISBN: 9780128132562

19-296-J Making glue from seeds and gums: working with plant-based polymers to introduce students to plant biochemistry
T. Mukherjee, R. Lerma-Reyes, K.A. Thompson, K. Schrick
Biochemistry and Molecular Biology Education
May 2019
Vol. 47 Issue 4, Pg. 468-475
doi.org/10.1002/bmb.21252

19-309-J Inhibition of dicer activity in lepidopteran and dipteran cells by baculovirus-mediated expression of Flock House virus B2
J.J. Hodgsona, L.W. Wenger, R.J. Clem, A.L. Passarelli
Scientific Reports
October 2019
Vol. 9, Article No. 14494
doi.org/10.1038/s41598-019-50851-4

19-322-J Deterioration of ovary plays a key role in heat stress-induced spikelet sterility in sorghum
A. Chiluwal, R. Bheemanahalli, V. Kanaganahalli, D. Boyle, R. Perumal, M. Pokharel, H. Oumarou, S.V.K. Jagadish
Plant, Cell & Environment
November 2019
Vol. 43, Issue 2, Pg. 448-462
doi.org/10.1111/pce.13673

19-326-J The freshwater biome gradient framework: predicting macroscale properties based on latitude, altitude, and precipitation
W.K. Dodds, L. Bruckerhoff, D. Batzer, A. Schechner, C. Pennock, E. Renner, F. Tromboni, K. Bigham, S. Grieger
Ecosphere
July 2019, Vol. 10, Issue 7
doi.org/10.1002/ecs2.2786

Clinical Sciences

18-025-J Antimicrobial resistance of *Enterococcus faecium* strains isolated from commercial probiotic products used in cattle and swine
R.G. Amachawadi, F. Giok, X. Shi, J. Soto, S.K. Narayanan, M.D. Tokach, M.D. Apley, T. G. Nagaraja
Journal of Animal Science
March 2018
Vol. 96, Issue 3, Pg. 912-920
doi.org/10.1093/jas/sky056

18-090-J Effects of high condensed-tannin substrate, prior dietary tannin exposure, antimicrobial inclusion, and animal species on fermentation parameters following a 48 h in vitro incubation
A.N. Hoehn, E.C. Titgemeyer, T.G. Nagaraja, J.S. Drouillard, M.D. Miesner, K.C. Olson
Journal of Animal Science
January 2018
Vol. 96, Issue 1, Pg. 343-353
doi.org/10.1093/jas/skx018

18-196-S 2017 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 7
https://newprairiepress.org/kaesrr/vol3/iss7/

18-280-J Effects of tylosin administration routes on the prevalence of antimicrobial resistance among fecal enterococci of finishing swine
F. Wu, M.D. Tokach, J.M. DeRouchey, S.S. Dritz, J.C. Woodworth, R.D. Goodband, K. Chitakasempornkul, N.M. Bello, K. Capps, S. Remfry, H.M. Scott, T.G. Nagaraja, M.D. Apley, R.G. Amachawadi
Foodborne Pathogens and Disease
May 2019, Vol. 16, Issue 5
http://doi.org/10.1089/fpd.2018.2551

18-287-J Effects of dietary supplementation of formaldehyde and crystalline amino acids on gut microbial composition of nursery pigs
H.E. Williams, R.A. Cochrane, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, C.K. Jones, S.C. Fernando, T.E. Burkey, Y.S. Li, R.D. Goodband, R.G. Amachawadi
Scientific Reports
May 2018
Vol. 8, Article No. 8164
doi.org/10.1038/s41598-018-26540-z

18-290-J Effects of chlortetracycline alone or in combination with direct fed microbials on nursery pig growth performance and antimicrobial resistance of fecal *Escherichia coli*
H.E. Williams, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, T.G. Nagaraja, R.D. Goodband, J.R. Pluske, K. Chitakasempornkul, N.M. Bello, R.G. Amachawadi
Journal of Animal Science
October 2018
Vol. 96, Issue 12, Pg. 5166-5178
doi.org/10.1093/jas/sky370

19-091-S 2018 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 9
https://newprairiepress.org/kaesrr/vol4/iss9/

Communications and Agricultural Education

17-270-J Community-based grazing marketing: Barriers and benefits related to the adoption of best managment practices in grazing systems
A.E.H. King, L.M. Baker, P.J. Tomlinson
Journal of Applied Communications
2017, Vol. 101, Issue 1
doi.org/10.4148/1051-0834.1013

17-303-J Agriculture teacher awareness and application of self-regulation strategies
R.B. McKendree, S.G. Washburn
Journal of Agricultural Education
2017
Vol. 58, Issue 4, Pg. 143-159
doi.org/10.5032/jae.2017.040143

18-093-J Communicating climate change: A qualitative study exploring how communicators and educators are approaching climate change discussions
K. Rohling, C. Wandersee, L. Baker, P. Tomlinson
Journal of Applied Communications
2017, Vol. 100, Issue 3
doi.org/10.4148/1051-0834.1232

Diagnostic Medicine/Pathobiology

17-295-J Intercellular transfer of mitochondria rescues virus-induced cell death but facilitates cell-to-cell spreading of porcine reproductive and respiratory syndrome virus
R. Guo, D. Davis, Y. Fang
Virology
April 2018, Vol. 517, Pg. 122-134
doi.org/10.1016/j.virol.2017.12.018

17-349-J Effect of high doses of Natuphos E 5,000 G phytase on growth performance of nursery pigs
K.M. Gourley, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, M.D. Tokach, R.D. Goodband
Journal of Animal Science
January 2018
Vol. 96, Issue 2, Pg. 570-578
doi.org/10.1093/jas/sky001

18-004-J Genetic analysis of virulence potential of *Escherichia coli* O104 serotypes isolated from cattle feces using whole genome sequencing
P.B. Shridhar, I.R. Patel, J. Gangiredla, L. Noll, X. Shi, J. Bai, C.A. Elkins, N. Strockbine, T. G. Nagaraja
Frontiers in Microbiology
March 2018
Vol. 9, No. 341
doi: 10.3389/fmicb.2018.00341

18-025-J Antimicrobial resistance of *Enterococcus faecium* strains isolated from commercial probiotic products used in cattle and swine
R.G. Amachawadi, F. Giok, X. Shi, J. Soto, S.K. Narayanan, M.D. Tokach, M.D. Apley, T. G. Nagaraja
Journal of Animal Science
March 2018
Vol. 96, Issue 3, Pg. 912-920
doi.org/10.1093/jas/sky056

18-037-J Comparison of immune responses in pigs infected with Chinese highly pathogenic PRRS virus strain HV and North American strain NADC-20
X. Li, A. Galliher-Beckley, L. Wang, J. Nietfeld, W. Feng, J. Shi
The Open Virology Journal
June 2017
Vol. 11, Issue Suppl-1, M5, Pg. 73-82
doi: 10.2174/1874357901711010073

18-041-J Pigs immunized with a novel E2 subunit vaccine are protected from heterologous classical swine fever virus challenge
R. Madera, W. Gong, L. Wang, Y. Burakova, K. Lleellish, A. Galliher-Beckley, J. Nietfeld, J. Henningson, K. Jia, P. Li, J. Bai, J. Schlup, S. McVey, C. Tu, J. Shi
BMC Veterinary Research
September 2016
Vol. 12, Article No. 197
doi.org/10.1186/s12917-016-0823-4

18-047-J Characterization of a novel oil-in-water emulsion adjuvant for swine influenza virus and *Mycoplasma hyopneumoniae* vaccines
A. Galliher-Beckley, L.K. Pappan, Rachel Madera, Y. Burakova, A. Waters, M. Nickles, X. Li, J. Nietfeld, J.R.Schlup, Q. Zhong, S. McVey, S.S.Dritz, J. Shi
Vaccine
June 2015
Vol. 33, Issue 25, Pg. 2903-2908
doi.org/10.1016/j.vaccine.2015.04.065

18-048-J Pigs immunized with Chinese highly pathogenic PRRS virus modified live vaccine are protected from challenge with North American PRRSV strain NADC-20
A. Galliher-Beckley, X. Li, J.T. Bates, R. Madera, A. Waters, J. Nietfeld, J. Henningson, D. He, W. Feng, R. Chen, J. Shi
Vaccine
July 2015
Vol. 33, Issue 30, Pg. 3518-3525
doi.org/10.1016/j.vaccine.2015.05.058

18-049-J Characterization of dye-decolorizing peroxidase (DyP) from *Thermomonospora curvata* reveals unique catalytic properties of A-type DyPs
C. Chen, R. Shrestha, K. Jia, P.F. Gao, B.V. Geisbrecht, S.H. Bossmann, J. Shi, P. Li
Journal of Biological Chemistry
July 2015
Vol. 290, Pg. 23447-23463
doi: 10.1074/jbc.M115.658807

18-050-A Pigs immunized with a novel E2 subunit vaccine are protected from subgenotype heterologous classical swine fever virus challenge
R. Madera, W. Gong, L. Wang, Y. Burakova, K. Lleellish, A. Galliher-Beckley, J. Nietfeld, J.. Henningson, K. Jia, P. Li, J. Bai, J. Schlup, S. McVey, C. Tu, J. Shi.
North American PRRS Symposium
December 2016

18-090-J Effects of high condensed-tannin substrate, prior dietary tannin exposure, antimicrobial inclusion, and animal species on fermentation parameters following a 48 h in vitro incubation
A.N. Hoehn, E.C. Titgemeyer, T.G. Nagaraja, J.S. Drouillard, M.D. Miesner, K.C. Olson
Journal of Animal Science
January 2018
Vol. 96, Issue 1, Pg. 343-353
doi.org/10.1093/jas/skx018

18-119-J Effects of a high-energy programmed feeding protocol on nutrient digestibility, health, and performance of newly received growing beef cattle
T.J. Spore, S.P. Montgomery, E.C. Titgemeyer, G.A. Hanzlicek, C.I. Vahl, T.G. Nagaraja, K.T. Cavalli, W.R. Hollenbeck,R. A. Wahl, D.A. Blasi
Applied Animal Science
August 2019
Vol. 35, Issue 4, Pg. 397-407
doi.org/10.15232/aas.2019-01853

18-123-J Effects of dietary energy level and intake of corn by-product based diets on newly received growing cattle: Antibody production, acute phase protein response, stress, and immunocompetency of healthy and morbid animals
T.J. Spore, S. P. Montgomery, E.C. Titgemeyer, G.A. Hanzlicek, C.I. Vahl, T.G. Nagaraja, K.T. Cavalli, W.R. Hollenbeck, R.A. Wahl, D.A. Blasi
Journal of Animal Science
April 2018
Vol. 96, Issue 4, Pg. 1474-1438
doi.org/10.1093/jas/sky035

18-173-J Detection and quantification of seven major serogroups of shiga toxin-producing *Escherichia coli* on hides of cull dairy, cull beef, and fed beef cattle at slaughter
L.W. Noll, P.B. Shridhar, S.E. Ives, E. Cha, T.G. Nagaraja, D.G. Renter
Journal of Food Protection
July 2018
Vol. 81, Issue 8, Pg. 1236-1244
doi.org/10.4315/0362-028X.JFP-17-497

18-195-J Lessons learned from managing electronic sow feeders and collecting weight gain of gestating sows housed on a large commercial farm
L.L. Thomas, M.A. Gonçalves, C.M. Vier, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey
Journal of Swine Health and Production
March 2018
Vol. 26, No. 5, Pg. 270-275

18-196-S 2017 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 7
https://newprairiepress.org/kaesrr/vol3/iss7/

18-199-J *Campylobacter* prevalence and quinolone susceptibility in feces of preharvest feedlot cattle exposed to enrofloxacin for the treatment of bovine respiratory disease
A.B. Smith, D.G. Renter, X. Shi, N. Cernicchiaro, O. Sahin, T.G. Nagaraja
Foodborne Pathogens and Disease
June 2018
Vol. 15, No. 6
doi.org/10.1089/fpd.2017.2398

18-207-J Value of arrival metaphylaxis in U.S. cattle industry
E.J. Dennis, D.L. Pendell, D.G. Renter, T.C. Schroeder
Journal of Agricultural and Resource Economics
May 2018, Vol. 43, Issue 2
jareonline.org/articles/value-of-arrival-metaphylaxis-in-u-s-cattle-industry/

18-248-J Effect of standardized ileal digestible lysine on growth and subsequent performance of weanling pigs
J.E. Nemechek, F. Wu, M.D. Tokach, S.S. Dritz, R.D. Goodband, J.M. DeRouchey, J.M. Woodworth
Translational Animal Science
April 2018, Vol. 2, Issue 2, Pg. 156-161
doi.org/10.1093/tas/txy011

18-249-J Effect of parity and stage of gestation on growth and feed efficiency of gestating sows
L.L. Thomas, R.D. Goodband, M.D. Tokach, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz
Journal of Animal Science
July 2018
Vol. 96, Issue 10, Pg. 4327-4338
doi.org/10.1093/jas/sky279

18-250-J Partitioning components of maternal growth to determine efficiency of feed use in gestating sows
L.L. Thomas, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey
Journal of Animal Science
June 2018
Vol. 96, Issue 10, Pg. 4313-4326
doi.org/10.1093/jas/sky219

18-256-J DNA microarray- based genomic characterization of pathotypes of *Escherichia coli* O26, O45, O103, O111, and O145 isolated from feces of feedlot cattle
P.B. Shridhar, I.R. Patel, J. Gangiredla, L.W. Noll, X. Shi, J. Bai, T.G. Nagaraja
Journal Food Protection
March 2019
Vol. 82, Issue 3, Pg. 395-404
doi.org/10.4315/0362-028X.JFP-18-393

18-277-J Evaluating the effects of fish meal source and level on growth performance of nursery pigs
A.M. Jones, F. Wu, J.C. Woodworth, M.D. Tokach, R.D. Goodband, J.M. DeRouchey, S.S. Dritz
Translational Animal Science
April 2018
Vol. 2, Issue 2, Pg. 144-155
doi.org/10.1093/tas/txy010

18-280-J Effects of tylosin administration routes on the prevalence of antimicrobial resistance among fecal enterococci of finishing swine
F. Wu, M.D. Tokach, J.M. DeRouchey, S.S. Dritz, J.C. Woodworth, R.D. Goodband, K. Chitakasempornkul, N.M. Bello, K. Capps, S. Remfry, H.M. Scott, T.G. Nagaraja, M.D. Apley, R.G. Amachawadi
Foodborne Pathogens and Disease
May 2019
Vol. 16, Issue 5
http://doi.org/10.1089/fpd.2018.2551

18-284-J Validation and application of a real-time PCR assay based on the CRISPR array for serotype-specific detection and quantification of enterohemorrhagic *Escherichia coli* O157:H7 in Cattle Feces
L.W. Noll, R. Chall, P.B. Shridhar, X. Liu, J. Bai, S. Delannoy, P. Fach, T.G. Nagaraja
Journal of Food Protection
July 2018
Vol. 81, Issue 7, Pg. 1157-1164
doi.org/10.4315/0362-028X.JFP-18-049

18-290-J Effects of chlortetracycline alone or in combination with direct fed microbials on nursery pig growth performance and antimicrobial resistance of fecal *Escherichia coli*
H.E. Williams, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, T.G. Nagaraja, R.D. Goodband, J.R. Pluske, K. Chitakasempornkul, N.M. Bello, R.G. Amachawadi
Journal of Animal Science
October 2018
Vol. 96, Issue 12, Pg. 5166-5178
doi.org/10.1093/jas/sky370

18-310-S 2018 Cattlemen's Day Research Report
E.A. Boyle and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 1
newprairiepress.org/kaesrr/vol4/iss1/

18-326-J Effect of standardized ileal digestible lysine and added copper on growth performance, carcass characteristics, and fat quality of finishing pigs
K.F. Coble, F. Wu, J.M. DeRouchey, M.D. Tokach, S.S. Dritz, R.D. Goodband, J.C. Woodworth, J.L. Usry
Journal of Animal Science
May 2018
Vol. 96, Issue 8, Pg. 3249-3263
doi.org/10.1093/jas/sky184

18-340-J Effect of diet type and added copper on growth performance, carcass characteristics, energy digestibility, gut morphology, and mucosal mRNA expression of finishing pigs
K.F. Coble, D.D. Burnett, J.M. DeRouchey, M.D. Tokach, J.M. Gonzalez, F. Wu, S.S. Dritz, R.D. Goodband, J.C. Woodworth, J.R. Pluske
Journal of Animal Science
May 2018
Vol. 96, Issue 8, Pg. 3288-3301
doi.org/10.1093/jas/sky196

18-387-J Effects of sodium metabisulfite additives on nursery pig growth
D.J. Shawk, S.S. Dritz, R.D. Goodband, M.D. Tokach, J.C. Woodworth, J.M. DeRouchey
Translational Animal Science
January 2019
Vol. 3, Issue 1, Pg. 103-112
doi.org/10.1093/tas/txy098

18-388-J Effects of added dietary salt on pig growth performance
D.J. Shawk, R.D. Goodband, M.D. Tokach, S.S. Dritz, J.M. DeRouchey, J.C. Woodworth, A.B. Lerner, H.E. Williams
Translational Animal Science
October 2018
Vol. 1, Issue 4, Pg. 396-406
doi.org/10.1093/tas/txy085

18-389-J Evaluation of dietary electrolyte balance on nursery pig performance
A.M. Jones, F. Wu, J.C. Woodworth, S.S. Dritz, M.D. Tokach, J.M. DeRouchey, R.D. Goodband
Translational Animal Science
July 2018
Vol. 3, Issue 1, Pg. 378-383
doi.org/10.1093/tas/txy090

18-493-J Effects of standardized ileal digestible histidine to lysine ratio on growth performance of 7- to 11-kg nursery pigs
H.S. Cemin, C.M. Vier, M.D. Tokach, S.S. Dritz, K.J. Touchette, J.C. Woodworth, J.M. DeRouchey, R.D. Goodband
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4713-4722
doi.org/10.1093/jas/sky319

18-501-J Effect of roller mill configuration on growth performance of nursery and finishing pigs and milling characteristics
J.T. Gebhardt, C.B. Paulk, M.D. Tokach, J.M. DeRouchey, R.D. Goodband,J.C. Woodworth, J.A. DeJong, K.F. Coble, C.R. Stark, C.K. Jones, S.S. Dritz
Journal of Animal Science
April 2018
Vol. 96, Issue 6, Pg. 2278-2292
doi.org/10.1093/jas/sky147

18-505-J Feed batch sequencing to decrease the risk of porcine epidemic diarrhea virus (PEDV) cross-contamination during feed manufacturing
L.L. Schumacher, R.A. Cochrane, A.R. Huss, J.T. Gebhardt, J.C. Woodworth, C.R. Stark, C.K. Jones, J. Bai, R.G. Main, Q. Chen, J. Zhang, P.C. Gauger, J.M. DeRouchey, R.D. Goodband, M.D. Tokach, S.S. Dritz
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4562-4570
doi.org/10.1093/jas/sky320

18-506-J Evaluation of the effects of flushing feed manufacturing equipment with chemically treated rice hulls on porcine epidemic diarrhea virus cross-contamination during feed manufacturing
J.T. Gebhardt, R.C. Cochrane, J.C. Woodworth, C.K. Jones, M.C. Niederwerder, M.B. Muckey, C.R. Stark, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J. Bai, P.C. Gauger, Q. Chen, J.J. Zhang, R.G. Main, S.S. Dritz
Jounrnal of Animal Science
July 2018
Vol. 96, Issue 10, Pg. 4149-4158
doi.org/10.1093/jas/sky295

18-507-J Determining the impact of commercial feed additives as potential porcine epidemic diarrhea virus mitigation strategies as determined by polymerase chain reaction analysis and bioassay
J.T. Gebhardt, J.C. Woodworth, C.K. Jones, M.D. Tokach, P.C. Gauger, R.G. Main, J. Zhang, Q. Chen, J.M. DeRouchey, R.D. Goodband, C.R. Stark, J.R. Bergstrom, J. Bai, S.S. Dritz
Translational Animal Science
August 2018
Vol. 3, Issue 1, Pg. 93-102

18-518-J Technical note: Assessment of sampling technique from feeders for copper, zinc, calcium, and phosphorous analysis
A.M. Jones, J.C. Woodworth, C.I. Vahl, M.D. Tokach, R.D. Goodband, S.S. Dritz
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4611-4617
doi.org/10.1093/jas/sky347

18-521-J Determining the influence of chromium propionate and *Yucca schidigera* on growth performance and carcass composition of pigs housed in a commercial environment
J.T. Gebhardt, J.C. Woodworth, M.D. Tokach, J.M. Derouchey, R.D. Goodband, J.A. Loughmiller, A.L.P. de Souza, M.J. Rincker, S.S. Dritz
Translational Animal Science
August 2019
Vol. 3, Issue 4, Pg. 175-1285
doi.org/10.1093/tas/txz117

19-015-J Effects of sodium and chloride source and level on nursery pig growth performance
D.J. Shawk, M.D. Tokach, R.D. Goodband, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, A.B. Lerner, F. Wu, C.M. Vier, M.M. Moniz, K.N. Nemechek
Journal of Animal Science
February 2019
Vol. 97, Issue 2, Pg. 745-755
doi.org/10.1093/jas/sky429

19-017-J A retrospective analysis of seasonal growth patterns of nursery and finishing pigs in commercial production
F. Wu, J. Liao, M.D. Tokach, S.S. Dritz, J.C. Woodworth, R.D. Goodband, J.M. DeRouchey, C.I. Vahl, H.I. Calderón-Cartagena, D.L. Van De Stroet
Journal of Swine Health and Production
2019, Vol. 27, Issue 1, Pg. 19-33
www.aasv.org/shap/issues/v27n1/v27n1p19.pdf

19-019-J Effects of a high-energy programmed feeding protocol on nutrient digestibility, health, and performance of newly received growing beef cattle
T.J. Spore, S.P. Montgomery, E.C. Titgemeyer, G.A. Hanzlicek, C.I. Vahl, T.G. Nagaraja, K.T. Cavalli, W.R. Hollenbeck, R.A. Wahl, and D.A. Blasi
Applied Animal Science
August 2019
Vol. 35, Isse 4, Pg. 397-407
doi.org/10.15232/aas.2019-01853

19-049-J Strategy to blend leftover finisher feed to nursery pigs in a wean-to-finish production system
F. Wu, K.F. Coble, C.W. Hastad, M.D. Tokach, J.C. Woodworth, J.M. DeRouchey, S.S. Dritz, R.D. Goodband
Translational Animal Science
January 2019
Vol. 3, Issue 1, Pg. 408-418
doi.org/10.1093/tas/txy143

19-091-S 2018 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 9
https://newprairiepress.org/kaesrr/vol4/iss9/

19-097-J *Rickettsia rickettsii* whole cell antigens offer protection against Rocky Mountain spotted fever in the canine host
A. Alhassan, H. Liu, J. McGill, A. Cerezo, L.U.M.R. Jakkula, A.D.S. Nair, E. Winkley, S. Olson, D. Marlow, A. Sahni, H.P. Narra, S. Sahni, J. Henningson, R.R. Ganta
Infection and Immunity
February 2019
Vol. 87, Issue 2
doi: 10.1128/IAI.00628-18

19-134-J Analysis of virulence potential of *Escherichia coli* O145 isolated from cattle feces and hide samples based on whole-genome sequencing
P.B. Shridhar, J.N. Worley, X. Gao, X. Yang, L.W. Noll, X. Shi, J. Bai, J. Meng, T. G. Nagaraja
Plos Genetics
November 2019
doi.org/10.1371/journal.pone.0225057

19-213-J Proteome analysis revealed changes in protein expression patterns caused by mutations in *Ehrlichia chaffeensis*
C. Kondethimmanahalli, H. Liu, R. Ganta
Frontiers in Cellular and Infection Microbiology
March 2019
Vol. 9, Article 58
doi: 10.3389/fcimb.2019.00058

19-281-J Effects of oral administration of *Bacillus subtilis* C-3102 to nursing piglets on pre-weaning growth performance, fecal consistency, and fecal microbes
M.B. Menegat, J.M. DeRouchey, J.C. Woodworth, M.D. Tokach, R.D. Goodband, S.S. Dritz
Journal of Swine Health and Production
September 2019
Vol. 28, Issue 1, Pg. 12-20
www.aasv.org/shap/issues/v28n1/v28n1p12.html

19-282-J Effects of standardized total tract digestible phosphorus on growth performance of 11- to 23- kg pigs fed diets with or without phytase
C.M. Vier, S.S. Dritz, F. Wu, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, M.A.D. Gonçalves, U.A.D. Orlando, J.C. Woodworth
Journal of Animal Science
October 2019
Vol. 97, Issue 10, Pg. 4032-4040
doi.org/10.1093/jas/skz255

19-283-J Calcium to phosphorus ratio requirement of 26- to 127- kg pigs fed diets with or without phytase
C.M. Vier, S.S. Dritz, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, M.A.D. Gonçalves, U.A.D. Orlando, J. Bergstrom, J.C. Woodworth
Journal of Animal Science
August 2019
Vol. 97, Issue 10, Pg. 4041-4052
doi.org/10.1093/jas/skz257

19-284-J Effects of *Bacillus subtilis* C-3102 on sow and progeny performance, fecal consistency, and fecal microbes during gestation, lactation, and nursery periods
M.B. Menegat, J.M. DeRouchey, J.C. Woodworth, S.S. Dritz, M.D. Tokach, R.D. Goodband
Journal of Animal Science
September 2019
Vol. 97, Issue 9
doi.org/10.1093/jas/skz236

Entomology

16-356-J Density mediates grasshopper performance in response to temperature manipulation and spider predation in tallgrass prairie
A.N. Laws, A. Joern
Bulletin of Entomological Research
April 2017
Vol. 107, Issue 2, Pg. 261-267
doi.org/10.1017/S0007485316000894

17-122-J Isolation by distance, source-sink population dynamics and dispersal facilitation by trade routes: Impact on population genetic structure of a stored grain pest
E.M.G. Cordeiro, J.F. Campbell, T. Phillips, E. Akhunov
G3: Genes, Genomes, Genetics
May 2019
Vol. 9, No. 5, Pg. 1457-1468
doi.org/10.1534/g3.118.200892

17-373-J Use of lard, food grade propylene glycol, and polysaccharides in infused nets to control *Tyrophagus putrescentiae* (Schrank; sarcoptiformes: Acaridae) infestation on dry cured hams
M.W. Schilling, X. Zhang, M.D. Byron, J. Goddard, T.W. Phillips
Meat and Muscle Biology
January 2018
Vol. 2, Issue 1
doi:10.22175/mmb2017.09.0044

18-018-S 2017 Kansas Performance Tests with Winter Wheat Varieties, SRP1135
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-076-J Molecular mechanism of action and selectivity of sodium channel blocker insecticides
K. Silver, K. Dong, B.S. Zhorov
Current Medicinal Medicine
2017
Vol. 24, Issue 27, Pg. 2912-2924

18-077-J Suppression of calpain expression by NSAIDs is associated with inhibition of cell migration in rat duodenum
K. Silver, A. Littlejohn, L. Thomas, B. Bawa, J.D. Lillich
Toxicology
May 2017, Vol. 383, Pg. 1-12
doi.org/10.1016/j.tox.2017.03.017

18-092-J A double-stranded RNA degrading enzyme reduces the efficiency of oral RNA interference in migratory locust
H. Song, J. Zhang, D. Li, A.M.W. Cooper, K. Silver, Tao Li, X. Liu, E. Ma, K.Y. Zhu, J. Zhang
Insect Biochemistry and Molecular Biology
July 2017
Vol. 86, Pg. 68-80
doi.org/10.1016/j.ibmb.2017.05.008

18-094-J Essential oils as an alternative to conventional pesticides for managing brown recluse spiders, *Loxosceles reclusa*, (Araneae: Sicariidae)
R. Ewing, Holly N. Davis, Breta L. Alstrom, Chloe E. Albin, Ashley M. Kragelund, R. Jeff Whitworth
Journal of the Kansas Entomological Society
September 2019
Vol. 92, Issue 1, Pg. 406-411
doi.org/10.2317/0022-8567-92.1.406

18-124-J A taxonomic revision of the subfamily *Tillinae* Leach *sensu lato* (Coleoptera, Cleridae) in the New World
A. Burke and G. Zolnerowich
ZooKeys
December 2017
Vol. 719, Pg. 75-157
doi.org/10.3897/zookeys.719.21253

18-160-J Comparison of gene expression profiles in the aquatic midge (*Chironomus tentans*) larvae exposed to two major agricultural pesticides
G. Tang, J. Yao, X. Zhang, N. Lu, K.Y. Zhu
Chemosphere
March 2018
Vol. 194, Pg. 745-754
doi.org/10.1016/j.chemosphere.2017.12.040

18-176-J Water absorption through salivary gland type I acini in the blacklegged tick, *Ixodes scapularis*
D. Kim, P.M. Ruiz, L. Zurek, Y. Park
PeerJ
October 2017, Vol. 5, e3984
https://peerj.com/articles/3984/

18-177-J Evaluation of pyrethroid insecticides and insect growth regulators applied to different surfaces for control of T*rogoderma granarium* (Coleoptera: Dermestidae) the Khapra beetle
F. H. Arthur, M. N. Ghimire, S. W. Myers, T. W. Phillips
Journal of Economic Entomology
March 2018
Vol. 111, Issue 2, Pg. 612-619
doi.org/10.1093/jee/toy040

18-218-S 2017 Kansas Performance Tests with Corn Hybrids, SRP1136
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-235-S 2017 Kansas Performance Test with Grain Sorghum Hybrids, SRP1138
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-237-J The impact of scavenging versus predation on weight change and survival of the brown recluse spider *Loxosceles reclusa* (Araneae: Sicariidae)
R. Ewing, H.N. Davis, B.L. Alstrom, C.E. Albin, R.J. Whitworth
Journal of the Kansas Entomological Society
April 2019
Vol. 91, Issue 2, Pg. 101-109
doi.org/10.2317/0022-8567-91.2.101

18-254-J Roles of transient receptor potential channels in eclosion and movement in the red flour beetle, *Tribolium castaneum*
H.G. Kim, D.C. Margolies, Y. Park
Physiological Entomology
June 2018
Vol. 43, Issue 2, Pg. 79-85
doi-org.er.lib.k-state.edu/10.1111/phen.12232

18-279-J Problems inherent to augmentation of natural enemies in open agriculture
J.P. Michaud
Neotropical Entomology
January 2018, Vol. 47, Pg. 162-170
doi.org/10.1007/s13744-018-0589-4

18-295-J Molecular mechanisms influencing efficiency of RNA interference in insects
A.M.W. Cooper, K. Silver, J. Zhang, Y. Park, K.Y. Zhu
Pest Management Science
June 2018
Vol. 75, Issue 1, Pg. 18-28
doi.org/10.1002/ps.5126

18-314-J Molecular characterization of antibiotic resistant and potentially virulent enterococci isolated from swine farms and feed mills
L.K. Channaiah, B. Subramanyam, L. Zurek
Journal of Stored Products Research
June 2018
Vol. 77, Pg. 189-196
doi.org/10.1016/j.jspr.2018.04.007

18-351-J Development of single nucleotide polymorphism markers for the wheat curl mite resistance gene Cmc4
J. Zhao, N.R. Abdelsalam, L. Khalaf, W.-P. Chuang, L. Zhao, C. M. Smith, B. Carver, G. Bai
Crop Science
July 2019
Vol. 59, Issue 4, Pg. 1567-1575
doi:10.2135/cropsci2018.11.0695

18-358-J Mortality of sugarcane aphid, *Melanaphis sacchari* (Zehntner) (Hemiptera: Aphididae), at low temperatures
J.P. Michaud, C. Bain, A. Abdel-Wahab
Journal of Economic Entomology
July 2018
Vol. 111, Issue 5, Pg. 2496-2498
doi.org/10.1093/jee/toy195

18-366-J Bioluminescent behavior of North American firefly larvae (Coleoptera: Lampyridae) with a discussion of function and evolution
L.L. Buschman
Insects of Western North America
March 2019
Issue 11, ISBN 1084-8819
https://hdl.handle.net/10217/194307

18-379-J Paternal effects associated with melanism in *Harmonia axyridis* (Coleoptera: Coccinellidae): Mating sequence asymmetries and interactions with age-specific maternal effects
J.P. Michaud, A.H. Abdelwahab, V.F. Canassa, C. Bain
Ecological Entomology
May 2018
Vol. 43, Issue 5, Pg. 560-566
doi.org/10.1111/een.12638

18-380-J Mobility of adult *Tribolium castaneum* (Coleoptera: Tenebrionidae) and *Rhyzopertha dominica* (Coleoptera: Bostrichidae) after exposure to long-lasting insecticide-incorporated netting
W.R. Morrison III, R.V. Wilkins, A.R. Gerken, D.S. Scheff, K.Y. Zhu, F.H. Arthur, J.F. Campbell
Journal of Economic Entomology
October 2018
Vol. 111, Issue 5, Pg. 2443-2453
doi.org/10.1093/jee/toy173

18-382-J Effects of temperature, relative humidity, and protective netting on *Tyrophagus putrescentiae* (Schrank) (Saracoptiformes: Acaridae) infestation, fungal growth, and product quality of dry cured hams
J.D. Hendrix, X. Zhang, Y.L. Campbell, L. Zhang, L. Siberio, C.L. Cord, J.L. Silva, J. Goddard, T. Kim, T.W. Phillips, M.W. Schilling
Journal of Stored Product Research
June 2018
Vol. 77, Pg. 211-218
doi.org/10.1016/j.jspr.2018.05.005

18-383-J Evaluation of light attraction for the stored-product Psocids, *Liposcelis entomophila*, *Liposcelis paeta*, and *Liposcelis brunnea*
J. Diaz-Montano, J.F. Campbell, T.W. Phillips, J.E. Throne
Journal of Economic Entomology
April 2018
Vol. 111, Issue 3, Pg. 1476-1480
doi.org/10.1093/jee/toy104

18-614-J Challenges to conservation biological control on the High Plains: 150 years of evolutionary rescue
J.P. Michaud
Biological Control
October 2018
Vol. 125, Pg. 65-73
doi.org/10.1016/j.biocontrol.2018.07.001

19-024-J Molecular characterization of neuropeptide elevenin and two elevenin receptors, IsElevR1 and IsElevR2, from the blacklegged tick, *Ixodes scapularis*
D. Kim, L. Šimo, Y. Park
Insect Biochemistry and Molecular Biology
October 2018
Vol. 101, Pg. 66-75
doi.org/10.1016/j.ibmb.2018.07.005

19-025-J Neural and endocrine regulation of osmoregulatory organs in tick: Recent discoveries and implications
D. Kim, L. Šimo, M. Vancova, J. Urban, Y. Park
General and Comparative Endocrinology
July 2019, Vol. 278, Pg. 42-49
doi.org/10.1016/j.ygcen.2018.08.004

19-031-J Landscape effects on Hessian fly, *Mayetiola destructor* (Diptera: Cecidomyiidae), distribution within six Kansas commercial wheat fields
R.B. Schmid, T. Hefley, R. Lollato, B.P. McCornack
Agriculture, Ecosystems, & Environment
March 2019
Vol. 274, Pg. 52-61
doi.org/10.1016/j.agee.2018.12.018

19-033-J Spatio-temporal distribution and environmental drivers of barley yellow dwarf virus and vector abundance in Kansas
L.S. Enders, T.J. Hefley, J.J. Girvin, R.J. Whitworth, C.M. Smith
Phytopathology
October 2018, Vol. 108, No. 10
doi.org/10.1094/PHYTO-10-17-0340-R

19-039-J Endocrine system in supernumerary molting of the flour beetle, *Tribolium freemani*, under crowded conditions
K. Ruang-Rit, Y. Park
Insect Biochemistry and Molecular Biology
October 2018
Vol. 101, Pg. 76-84
doi.org/10.1016/j.ibmb.2018.08.002

19-041-J Registration of Hessian fly resistant germplasm KS18WGRC65 carrying *H26* in hard red winter wheat 'Overley' background
N. Singh, R. Steeves, M.-S. Chen, M. El-Bouhssini, M. Pumphrey, J. Poland
Journal of Crop Registrations
April 2020
Vol. 14, Issue 12, Pg. 206-209
doi.org/10.1002/plr2.20003

19-047-J Feeding location of aphid prey affects life history traits of a native predator
X. Cibils-Stewart, J. Nechols, K. Giles, B.P. McCornack
bioRxiv
September 2018
doi.org/10.1101/429415

19-067-B Chito-protein matrices in arthropod exoskeletons and peritrophic matrices
X. Zhao, J. Zhang, K. Y. Zhu
Extracellular Sugar-Based Biopolymer Matrices
July 2019
Vol. 12, Pg. 3-56
doi.org/10.1007/978-3-030-12919-4_1

19-068-J Biology and control of the khapra beetle, *Trogoderma granarium*, a major quarantine threat to global food security
C.G. Athanassiou,T.W. Phillips, W. Wakil
Annual Review of Entomology
January 2019, Vol. 64, Pg. 131-148
doi.org/10.1146/annurev-ento-011118-111804

19-088-J Development of a quick knockdown test for diagnosing resistance to phosphine in *Sitophilus oryzae* (Coleoptera: Curculionidae), a major pest of stored products
M.K. Nayak, R. Kaur, R. Jagadeesan, H. Pavic, T.W. Phillips, G.J. Daglish
Journal of Economic Entomology
August 2019
Vol. 112, Issue 4, Pg. 1975-1982
doi.org/10.1093/jee/toz085

19-115-J Isolation by distance, source-sink population dynamics and dispersal facilitation by trade routes: Impact on population genetic structure of a stored grain pest
E.M.G. Cordeiro, J.F. Campbell, T. Phillips, E. Akhunov
G3: Genes|Genomes|Genetics
May 2019
Vol. 9, No. 5, Pg. 1457-1468
doi.org/10.1534/g3.118.200892

19-119-S 2018 Kansas Performance Tests with Corn Hybrids, SRP1145
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-128-J Differences in *Aceria tosichella* population responses to wheat resistance genes and wheat virus transmission
L. Khalaf, W.-P. Chuang, L.M. Aguirre-Rojas, P. Klein, C.M. Smith
Anthropod-Plant Interactions
September 2019
Vol. 13, Pg. 807-818
doi.org/10.1007/s11829-019-09717-9

19-139-B Chitin in arthropods: Biosynthesis, metabolism and pest management
X. Liu, J. Zhang, K.Y. Zhu
Targeting Chitin-containing Organisms
May 2019
Vol. 1142, Pg. 169-207
doi.org/10.1007/978-981-13-7318-3_9

19-176-J A CAPS marker for determination of strong phosphine resistance in *Tribolium castaneum* from Brazil
Z. Hubhachen, H. Jiang, D. Schlipalius, Y. Park, R.N.C. Guedes, B. Oppert, G. Opit, T.W. Phillips
Journal of Pest Science
June 2019, Vol. 93, Pg. 127-134
doi.org/10.1007/s10340-019-01134-4

19-191-S 2018 Kansas Performance Tests with Grain Sorghum Hybrids, SRP1147
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-197-J How efficient is fertilization by traumatic insemination in *Orius insidiosus* (Hemiptera: Anthocoridae)
H.E. Vacacela Ajila, J.P. Michaud, A.H. Abdelwahab, S.V. Kuchta, H.E. Stowe
Journal of Economic Entomology
March 2019
Vol. 112, Issue 4, Pg. 1618-1622
doi.org/10.1093/jee/toz061

19-208-J Mechanisms, applications, and challenges of insect RNA interference
K.Y. Zhu, S.R. Palli
Annual Review of Entomology
October 2019
Vol. 65, Pg. 293-311
doi.org/10.1146/annurev-ento-011019-025224

19-209-J Biosynthesis. modifications and degradation of chitin in the formation and turnover of peritrophic matrix in insects
X. Liu, A.M.W. Cooper, J. Zhang, K.Y. Zhu
Journal of Insect Physiology
April 2019
Vol. 114, Pg. 109-115
doi.org/10.1016/j.jinsphys.2019.03.006Get

19-210-J Contributions of dsRNases to differential RNAi efficiencies between the injection and oral delivery of dsRNA in *Locusta migratoria*
H. Song, Y. Fan, J. Zhang, A.M.W. Cooper, K. Silver, D. Li, T. Li, E. Ma, K.Y. Zhu, J. Zhang
Pest Management Science
May 2019
Vol. 75, Issue 6, Pg. 1707-1717
doi.org/10.1002/ps.5291

19-238-J Differences in orientation behavior and female attraction by *Rhyzopertha dominica* (Coleoptera: Bostrichidae) in a homogeneous resource patch
E.M.G. Cordeiro, J.F. Campbell, T. Phillips
Environmental Entomology
May 2019
Vol. 48, Issue 4, Pg. 784-791
doi.org/10.1093/ee/nvz058

19-242-J Resistance to the fumigant phosphine and its management in insect pests of stored products: A global perspective
M.K. Nayak, G.J. Daglish, T.W. Phillips, P.R. Ebert
Annual Review of Entomology
October 2019
Vol. 65, Pg. 333-350
doi.org/10.1146/annurev-ento-011019-025047

19-248-J Effects of temperature, relative humidity, and protective netting on *Tyrophagus putrescentiae* (schrank) (sarcoptiformes: Acaridae) infestation, fungal growth, and product quality of cave-aged cheddar cheese
K. Krishnan, Y.L. Campbell, K.V. To, G. Lima, M.D. Byron, X. Zhang, J.D. Hendrix, W. Shao, C.L. Cord, C.A. Crist, T.W. Phillips, M.W. Schilling
Journal of Stored Products Research
September 2019
Vol. 83, Pg. 44-53
doi.org/10.1016/j.jspr.2019.05.014

19-264-J Evaluation of residual efficacy of pyrethrin + methoprene aerosol on two dermestids: Impact of particle size, species and temperature
S.K. Lanka, F.H. Arthur, J.F. Campbell, K.Y. Zhu
Insects
May 2019, Vol. 10, Issue 5
doi.org/10.3390/insects10050142

19-267-J Evaluation of knockdown bioassay methods to assess phosphine resistance in the red flour beetle, *Tribolium castaneum* (Herbst)(Coleoptera: Tenebrionidae)
A. Cato, E. Afful, M. Nayak, T.W. Phillips
Insects
May 2019, Vol. 10, Issue 5
doi.org/10.3390/insects10050140

19-274-J Remote sensing data to detect Hessian fly infestation in commercial wheat fields
G. Bhattarai, R. Schmid, B. McCornack
Scientific Reports
April 2019
Vol. 9, Article No. 6109
doi.org/10.1038/s41598-019-42620-0

19-289-J Metabolism of selected model substrates and insecticides by recombinant eCYP6FD encoded by its gene predominately expressed in the brain of *Locusta migratoria*
J. Liu, H. Wu, X. Zhang, W. Ma, W. Zhu, K. Silver, E. Ma, J. Zhang, K.Y. Zhu
Pesticide Biochemistry and Physiology
September 2019
Vol. 159, Pg. 154-162
doi.org/10.1016/j.pestbp.2019.06.011

19-308-J Progress and prospects of arthropod chitin pathways and structures as targets for pest management
X. Liua, A.M.W. Cooper, Z. Yu, K. Silver, J. Zhang, K.Y. Zhu
Pesticide Biochemistry and Physiology
November 2019
Vol. 161, Pg. 22-46
doi.org/10.1016/j.pestbp.2019.08.002

19-314-J Meta-analysis of QTLs for Fusarium head blight resistance in Chinese wheat landraces
J. Cai, S. Wang, Z. Su, T. Li, X. Zhang, G. Bai
The Crop Journal
December 2019
Vol. 7, Issue 6, Pg. 784-798
doi.org/10.1016/j.cj.2019.05.003

19-326-J The freshwater biome gradient framework: predicting macroscale properties based on latitude, altitude, and precipitation
W.K. Dodds, L. Bruckerhoff, D. Batzer, A. Schechner, C. Pennock, E. Renner, F. Tromboni, K. Bigham, S. Grieger
Ecosphere
July 2019, Vol. 10, Issue 7
doi.org/10.1002/ecs2.2786

19-327-J Chilled aeration to control pests and maintain grain quality during summer storage of wheat in the North Central Region of Kansas
A. Morales-Quiros, C.A. Campabadal, D.E. Maier, S.M.N. Lazzari, F. Lazzari, T.W. Phillips
Applied Engineering in Agriculture
2019
35(4): 657-688
doi: 10.13031/aea.13252

Food, Nutrition, Dietetics and Health

18-186-B Phenotypic diversity of colored phytochemicals in sorghum accessions with various pericarp pigments
H. Davis, X. Su, Y. Shen, J. Xu, D. Wang, J. Scott Smith, F. Aramouni, W. Wang
Polyphenols in Plants (Second Edition)
2019
Ch. 8, Pg. 123-131
doi.org/10.1016/B978-0-12-813768-0.00008-6

18-187-J Characterization of anthocyanins in sweet potato leaves grown in various stages and conditions
X. Su, J. Jia, F. Tao, J. Shen, J. Xu, J. Griffin, W. Wang
European Journal of Nutrition & Food Safety
October 2019
Vol. 10, Issue 4
doi.org/10.9734/ejnfs/2019/v10i430119

18-307-J Dough properties, bread quality, and associated interactions with added phenolic compounds: A review
J. Xu, W. Wang, Y. Li
Journal of Functional Foods
January 2019
Vol. 52, Pg. 629-639
doi.org/10.1016/j.jff.2018.11.052

18-622-B Ch. 3. Corn
J. Xu, Y. Li, W. Wang
Book: Bioactive Factors and Processing Technology for Cereal Foods, edited by J. Wang
2019
doi: 10.1007/978-981-13-6167-8

18-635-J Novel formulated fortified blended foods result in improved protein efficiency and hepatic iron concentrations compared with corn-soy blend plus in broiler chickens
N.M. Fiorentino, K.A. Kimmel, H.A.R. Suleria, M. Joseph, S. Alavi, R.S. Beyer, B.L. Lindshield
Current Developments in Nutrition
December 2018
Vol. 2, Issue 12
doi.org/10.1093/cdn/nzy073

19-002-J Complementary feeding of sorghum-based and corn-based fortified blended foods results in similar iron, vitamin A and anthropometric outcomes in the MFFAPP Tanzania efficacy study
N.M. Delimont, C.I. Vahl, R. Kayanda, W. Msuya, M. Mulford, P. Alberghine, G. Praygod, J. Mngara, S. Alavi, B.L. Lindshield
Current Developments in Nutrition
June 2019
Vol. 3, Issue 6
doi.org/10.1093/cdn/nzz027

19-249-J Glyphosate contamination in grains and foods: An overview
J. Xu, S. Smith, G. Smith, W. Wang, Y. Li
Food Control
December 2019, Vol. 106
doi.org/10.1016/j.foodcont.2019.106710

19-259-J Response of bioactive phytochemicals in vegetables and fruits to environmental factors
J. Xu, X. Su, Y. Li, X. Sun, D. Wang, W. Wang
European Journal of Nutrition & Food Safety
May 2019
Vol. 9, Issue 3, Pg. 233-247
doi.org/10.9734/ejnfs/2019/v9i330062

Grain Science and Industry

16-169-J Inhibition of advanced glycation end products in cooked beef patties by cereal bran addition
G. Chen, R.L. Madl, J.S. Smith
Food Chemistry
March 2017
Vol. 73, Part B, Pg. 847-853
doi.org/10.1016/j.foodcont.2016.09.037

17-108-J Glycolipid ranking of bread quality hard wheat breeding stock cultivars by tandem mass spectrometry of total lipid extract
M.D. Boatwright, A.K. Fritz, D.L. Wetzel
Cereal Research Communications
February 2017
Vol. 45, Issue 1, Pg. 139-145
doi.org/10.1556/0806.45.2017.001

17-204-J Milling performance of waxy wheat and wild-type wheat using two laboratory milling methods
X. Bin, A. Mense, K. Ambrose, Y.-C. Shi
Cereal Chemistry
July 2018
Vol. 95, Issue 5, Pg. 708-719
doi.org/10.1002/cche.10086

17-205-J In vitro bile acid binding capacity of wheat bran with different particle sizes
C. Li, A.L. Mense, L.R. Brewer, C. Lau, Y.-C. Shi
Cereal Chemistry
April 2017
Vol. 94, Issue 4, Pg. 654-658
doi.org/10.1094/CCHEM-08-16-0211-R

17-350-J Hypoglycemic effects of pyrodextrins with different molecular weights and digestibilities in mice with diet-induced obesity
Y. Cao, X. Chen, Y. Sun, J. Shi, X. Xu, Y.-C. Shi
Journal of Agricultural and Food Chemistry
February 2018
Vol. 66, Issue 11, Pg. 2988-2995
doi.org/10.1021/acs.jafc.8b00404

18-014-J Effect of spray drying on the properties of camelina gum isolated from camelina seeds
X. Cao, N. Li, G. Qi, X.S. Sun, D. Wang
Industrial crops and products
July 2018
Vol. 117, Pg. 278-285
doi.org/10.1016/j.indcrop.2018.03.017

18-016-J Sustainable production of microbial lipids from lignocellulosic biomass using oleaginous yeast cultures
J.-E. Lee, P.V. Vadlani, D. Min
Journal of Sustainable Bioenergy Systems
March 2017, Vol. 7, Pg. 36-50
doi: 10.4236/jsbs.2017.71004

18-032-J Molecular and conformational properties of hemicellulose fiber gum from dried distillers grains with solubles
J. Kang, Q. Guo, Y.C. Shi
Food Hydrocolloids
July 2018, Vol. 80, Pg. 53-59
doi.org/10.1016/j.foodhyd.2018.01.019

18-035-J Production of free fatty acids from switchgrass using recombinant *Escherichia coli*
J.-E. Lee, P.V. Vadlani, Y.N. Guragain, K.-Y. San, D.-H. Min
Biotechnology Progress
January 2018
Vol. 34, Issue 1, Pg. 91-98
doi.org/10.1002/btpr.2569

18-101-J Effect of Brahman genetics on myofibrillar protein degradation, collagen crosslinking, and tenderness of the longissimus lumborum
K.J. Phelps, D.D. Johnson, M.A. Elzo, C.B. Paulk, J.M. Gonzalez
Journal of Animal Science
December 2017
Vol. 95, Issue 12, Pg. 5397-5406
doi.org/10.2527/jas2017.2022

18-126-J Efficacy of filter cake and Triples powders from Ethiopia applied to concrete arenas against *Sitophilus zeamais*
T.M. Tadesse, B. Subramanyam
Journal of Stored Products Research
March 2018
Vol. 76, Pg. 140-150
doi.org/10.1016/j.jspr.2017.12.006

18-130-J NMR and methylation analysis of hemicellulose purified from corn bran
J. Kang, Q. Guo, Y.C. Shi
Food Hydrocolloids
September 2019
Vol. 94, Pg. 613-621
doi.org/10.1016/j.foodhyd.2019.03.048

18-185-J Dissolution of wheat bran by NaOH/Urea solutions and structure of soluble materials
A.L. Mense, Y.C. Shi
ACS Sustainable Chemistry & Engineering
February 2018
Vol. 6, Issue 3, Pg. 4264-4271
doi.org/10.1021/acssuschemeng.7b04707

18-213-J Settling volume and morphology changes in cross-linked and unmodified starches from wheat, waxy wheat and waxy maize in relation to their pasting properties
W. Wang, L. Guan, P.A. Seib, Y.C. Shi
Carbohydrate Polymers
September 2018
Vol. 196, Pg. 18-26
doi.org/10.1016/j.carbpol.2018.05.009

18-232-J Toxicity of chlorine dioxide gas to phosphine-susceptible and -resistant adults of five stored-product insect species: Influence of temperature and food during gas exposure
X. E, B. Li, B. Subramanyam
Journal of Economic Entomology
July 2018
Vol. 111, Issue 4, Pg. 1947-1957
doi.org/10.1093/jee/toy136

18-243-J Structures, properties, and potential applications of waxy tapioca starch - A review
C.F. Hsieh, W. Liu, J.K. Whaley, Y.-C. Shi
Trends in Food Science and Technology
January 2019
Vol. 83, Pg. 225-234
doi.org/10.1016/j.tifs.2018.11.022

18-275-J Structure and functional properties of waxy starches
C.F. Hsieh, W. Liu, J.K. Whaley, Y.-C. Shi
Food Hydrocolloids
September 2019
Vol. 94, Pg. 238-254
doi.org/10.1016/j.foodhyd.2019.03.026

18-307-J Dough properties, bread quality, and associated interactions with added phenolic compounds: A review
J. Xu, W. Wang, Y. Li
Journal of Functional Foods
January 2019, Vol. 52, Pg. 629-639
doi.org/10.1016/j.jff.2018.11.052

18-314-J Molecular characterization of antibiotic resistant and potentially virulent enterococci isolated from swine farms and feed mills
L.K. Channaiah, B. Subramanyam, L. Zurek
Journal of Stored Products Research
June 2018
Vol. 77, Pg. 189-196
doi.org/10.1016/j.jspr.2018.04.007

18-315-J Physicochemical properties and gluten structures of hard wheat flour doughs as affected by salt
G. Chen, L. Ehmke, C. Sharma, R. Miller, P. Faa, G. Smith, Y. Li
Food Chemistry
March 2019
Vol. 275, Pg. 569-576
doi.org/10.1016/j.foodchem.2018.07.157

18-316-J Effect of sodium chloride and sodium bicarbonate on the physicochemical properties of soft wheat flour doughs and gluten polymerization
G. Chen, L. Ehmke, R. Miller, P. Faa, G. Smith, Y. Li
Journal of Agricultural and Food Chemistry
June 2018
Vol. 66, Issue 26, Pg. 6840-6850
doi.org/10.1021/acs.jafc.8b01197

18-317-J Potassium chloride affects gluten microstructures and dough characteristics similarly as sodium chloride
G. Chen, R. Hu, Y. Li
Journal of Cereal Science
July 2018
Vol. 82, Pg. 155-163
doi.org/10.1016/j.jcs.2018.06.008

18-318-J Improvers and functional ingredients in whole wheat bread: A review of their effects on dough properties and bread quality
L. Tebben, Y. Shen, Y. Li
Trends in Food Science & Technology
November 2018
Vol. 81, Pg. 10-24
doi.org/10.1016/j.tifs.2018.08.015

18-334-J Intact cellular structure in cereal endosperm limits starch digestion in vitro
R.R. Bhattaraia, S. Dhital, A. Mense, M.J. Gidley, Y-.C. Shi
Food Hydrocolloids
August 2018
Vol. 81, Pg. 139-148
doi.org/10.1016/j.foodhyd.2018.02.027

18-341-J Bread characteristics and antioxidant activities of Maillard reaction products of white pan bread containing various sugars
Y. Shen, G. Chen, Y. Li
LWT-Food Science and Technology
May 2018
Vol. 95, Pg. 308-315
doi.org/10.1016/j.lwt.2018.05.008

18-402-J Effect of xanthan gum on dough properties and bread qualities made from whole wheat flour
L. Tebben, Y. Li
Cereal Chemistry
November 2018, Vol. 96, Issue 2
doi.org/10.1002/cche.10118

18-501-J Effect of roller mill configuration on growth performance of nursery and finishing pigs and milling characteristics
J.T. Gebhardt, C.B. Paulk, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J.C. Woodworth, J.A. DeJong, K.F. Coble, C.R. Stark, C.K. Jones, S.S. Dritz
Journal of Animal Science
April 2018
Vol. 96, Issue 6, Pg. 2278-2292
doi.org/10.1093/jas/sky147

18-505-J Feed batch sequencing to decrease the risk of porcine epidemic diarrhea virus (PEDV) cross-contamination during feed manufacturing
L.L. Schumacher, R.A. Cochrane, A.R. Huss, J.T. Gebhardt, J.C. Woodworth, C.R. Stark, C.K. Jones, J. Bai, R.G. Main, Q. Chen, J. Zhang, P.C. Gauger, J.M. DeRouchey, R.D. Goodband, M.D. Tokach, S.S. Dritz
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4562-4570
doi.org/10.1093/jas/sky320

18-506-J Evaluation of the effects of flushing feed manufacturing equipment with chemically treated rice hulls on porcine epidemic diarrhea virus cross-contamination during feed manufacturing
J.T. Gebhardt, R.C. Cochrane, J.C. Woodworth, C.K. Jones, M.C. Niederwerder, M.B. Muckey, C.R. Stark, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, J. Bai, P.C. Gauger, Q. Chen, J.J. Zhang, R.G. Main, S.S. Dritz
Jounrnal of Animal Science
July 2018
Vol. 96, Issue 10, Pg. 4149-4158
doi.org/10.1093/jas/sky295

18-507-J Determining the impact of commercial feed additives as potential porcine epidemic diarrhea virus mitigation strategies as determined by polymerase chain reaction analysis and bioassay
J.T. Gebhardt, J.C. Woodworth, C.K. Jones, M.D. Tokach, P.C. Gauger, R.G. Main, J. Zhang, Q. Chen, J.M. DeRouchey, R.D. Goodband, C.R. Stark, J.R. Bergstrom, J. Bai, S.S. Dritz
Translational Animal Science
August 2018
Vol. 3, Issue 1, Pg. 93-102

18-515-J Phenolic acid composition and antioxidant activity of hard red winter wheat varieties
W. Tian, Y. Li
Journal of Food Biochemistry
September 2018, Vol. 42, Issue 6
doi.org/10.1111/jfbc.12682

18-516-J Aggregation behavior of semolina gluten during dough production and fresh pasta cooking upon kansui treatment
G. Chen, Y. Li
Food Chemistry
April 2019, Vol. 278, Pg. 579-586
doi.org/10.1016/j.foodchem.2018.11.096

18-620-J Effect of amino acids on Maillard reaction product formation and total antioxidant capacity in white pan bread
Y. Shen, L. Tebben, G. Chen, Y. Li
International Journal of Food Science & Technology
2018, Vol. 54, Issue 4
doi.org/10.1111/ijfs.14027

18-622-B Ch. 3. Corn
J. Xu, Y. Li, W. Wang
Book: Bioactive Factors and Processing Technology for Cereal Foods, edited by J. Wang
2019
doi: 10.1007/978-981-13-6167-8

18-635-J Novel formulated fortified blended foods result in improved protein efficiency and hepatic iron concentrations compared with corn-soy blend plus in broiler chickens
N.M. Fiorentino, K.A. Kimmel, H.A.R. Suleria, M. Joseph, S. Alavi, R.S. Beyer, B.L. Lindshield
Current Developments in Nutrition
December 2018
doi.org/10.1093/cdn/nzy073

19-002-J Complementary feeding of sorghum-based and corn-based fortified blended foods results in similar iron, vitamin A and anthropometric outcomes in the MFFAPP Tanzania efficacy study
N.M. Delimont, C.I. Vahl, R. Kayanda, W. Msuya, M. Mulford, P. Alberghine, G. Praygod, J. Mngara, S. Alavi, B.L. Lindshield
Current Developments in Nutrition
June 2019
Vol. 3, Issue 6
doi.org/10.1093/cdn/nzz027

19-021-J Effect of added sugars and amino acids on acrylamide formation in white pan bread
Y. Shen, G. Chen, Y. Li
Cereal Chemistry
March 2019
Vol. 96, Issue 3, Pg. 545-553
doi.org/10.1002/cche.10154

19-022-S 2018 Kansas Performance Tests with Winter Wheat Varieties, SRP1143
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-038-J Systems metabolic engineering for citric acid production by *Aspergillus niger* in the post-genomic era
Z. Tong, X. Zheng, Y. Tong, Y.C. Shi, J. Sun
Microbial Cell Factories
February 2019
Vol. 18, Article No. 28
doi.org/10.1186/s12934-019-1064-6

19-048-J Changes in bread quality, antioxidant activity, and phenolic acid composition of wheats during early-stage germination
W. Tian, L. Ehmke, R. Miller, Y. Li
Journal of Food Science
February 2019
Vol. 84, Issue 3, Pg. 457-465
doi.org/10.1111/1750-3841.14463

19-051-J Contact toxicity of filter cake and Triplex powders from Ethiopia against adults of *Sitophilus zeamais* (Coleoptera: Curculionidae)
T.M. Tadesse, B. Subramanyam, K.Y. Zhu, J.F. Campbell
Journal of Economic Entomology
June 2019
Vol. 112, Issue 3, Pg. 1269-1475
doi.org/10.1093/jee/toz036

19-060-J Improved in vitro assay of resistant starch in cross-linked phosphorylated starch
J.Shi, Z. Sun, Y.-C. Shi
Carbohydrate Polymers
April 2019
Vol. 210, Pg. 210-214
doi.org/10.1016/j.carbpol.2019.01.059

19-084-J An improved method to determine the hydroxypropyl content in modified starches by ^{1}H NMR
W. Wang, Z. Sun, Y.-C. Shi
Food Chemistry
October 2019, Vol. 295, Pg. 556-562
doi.org/10.1016/j.foodchem.2019.05.152

19-091-S 2018 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 9
newprairiepress.org/kaesrr/vol4/iss9/

19-096-J Gelatinization, pasting and retrogradation properties of hydroxypropylated normal wheat, waxy wheat and waxy maize starches
W. Wang, Y-C. Shi
Food Hydrocolloids
September 2020, Vol. 106
doi.org/10.1016/j.foodhyd.2020.105910

19-107-J Pryodextrin from waxy and normal tapioca starches: Physicochemical properties
W. Weil, R.C. Weil, S. Keawsompong, K. Sriroth, P.A. Seib, Y.-C. Shi
Food Hydrocolloids
July 2020, Vol. 104
doi.org/10.1016/j.foodhyd.2020.105745

19-135-J Antioxidant characteristics and identification of peptides from sorghum kafirin hydrolysates
S. Xu, Y. Shen, G. Chen, S. Bean, Y. Li
Journal of Food Science
August 2019
Vol. 84, Issue 8, Pg. 2065-2076
doi.org/10.1111/1750-3841.14704

19-136-J Antioxidant activities of sorghum kafirin alcalase hydrolysates and membrane/gel filtrated fractions
S. Xu, Y. Shen, Y. Li
antioxidants
May 2019, Vol. 8, Issue 5
doi.org/10.3390/antiox8050131

19-137-J Antioxidant and anticancer effects in human hepatocarcinoma (HepG2) cells of papain-hydrolyzed sorghum kafirin hydrolysates
S. Xu, Y. Shen, J. Xu, G. Qi, G. Chen, W. Wang, X. Sun, Y. Li
Journal of Functional Foods
July 2019
Vol. 58, Pg. 374-382
doi.org/10.1016/j.jff.2019.05.016

19-152-J Efficacy of filter cake and Triplex powders from Ethiopia against three externally developing stored product insect species
T.M. Tadesse, B. Subramanyam
Journal of Stored Products Research
June 2019
Vol. 82, Pg. 73-80
doi.org/10.1016/j.jspr.2019.04.002

19-164-J Efficacy of filter cake and Triplex powders against three internally developing stored-product insect pests
T.M. Tadesse, B. Subramanyam
American Journal of Entomology
March 2019
Vol. 3, Issue 1, Pg. 15-23
doi: 10.11648/j.aje.20190301.13

19-170-J Position of acetyl groups on anhydroglucose unit in acetylated starches with intermediate degrees of substitution
J. Xu, Y.-C. Shi
Carbohydrate Polymers
September 2019
Vol. 220, Pg. 118-125
doi.org/10.1016/j.carbpol.2019.05.059

19-181-J Distribution of octenylsuccinate substituents within a single granule of modified waxy maize starch determined by Raman microspectroscopy
Z. Sun, Z.W. Chen, B. Xu, Y.-C. Shi
Carbohydrate Polymers
July 2019
Vol. 216, Pg. 282-286
doi.org/10.1016/j.carbpol.2019.04.034

19-200-J Efficacy of ozone against adults and immature stages of phosphine susceptible and resistant strains of *Rhyzopertha dominica*
X.E, B. Li, B. Subramanyam
Journal of Stored Products Research
September 2019
Vol. 83, Pg. 110-116
doi.org/10.1016/j.jspr.2019.06.004

19-247-J Partial swelling of granules enables high conversion of normal maize starch to glucose catalyzed by granular starch hydrolyzing enzyme
Z. Tong, Y. Tong, Y.-C. Shi
Industrial Crops and Products
November 2019, Vol. 140
doi.org/10.1016/j.indcrop.2019.111626

19-249-J Glyphosate contamination in grains and foods: An overview
J. Xu, S. Smith, G. Smith, W. Wang, Y. Li
Food Control
December 2019, Vol. 106
doi.org/10.1016/j.foodcont.2019.106710

19-259-J Response of bioactive phytochemicals in vegetables and fruits to environmental factors
J. Xu, X. Su, Y. Li, X. Sun, D. Wang, W. Wang
European Journal of Nutrition & Food Safety
May 2019
Vol. 9, Issue 3, Pg. 233-247
doi.org/10.9734/ejnfs/2019/v9i330062

19-270-J Antioxidant and emulsifying activities of corn gluten meal hydrolysates in oil-in-water emulsions
Y. Shen, R. Hu, Y. Li
Journal of the American Oil Chemists' Society
October 2019, Vol. 97, Issue 2
doi.org/10.1002/aocs.12286

19-302-J Potassium bicarbonate improves dough and cookie characteristics through influencing physicochemical and conformation properties of wheat gluten
G. Chen, R. Hu, Y. Li
Food Chemistry
March 2020, Vol. 5
doi.org/10.1016/j.fochx.2019.100075

19-327-J Chilled aeration to control pests and maintain grain quality during summer storage of wheat in the North Central Region of Kansas
A. Morales-Quiros, C.A. Campabadal, D.E. Maier, S.M.N. Lazzari, F. Lazzari, T.W. Phillips
Applied Engineering in Agriculture
2019
35(4): 657-688
doi: 10.13031/aea.13252

19-328-J Recent advances in preparation and characterization of intermediately to highly esterified and etherified starches: A review
J. Xu, T.D. Andrews, Y.-C. Shi
Starch
January 2020
Vol. 72, Issue 3-4
doi.org/10.1002/star.201900238

19-337-J Antioxidant performances of corn gluten meal and DDGS protein hydrolysates in food, pet food, and feed systems
R. Hu, R.M. Dunmire, C.N. Truelock, C.B. Paulk, G. Aldrich, Y. Li
Journal of Agriculture and Food Research
December 2020
Vol. 2, Article No. 1000300
doi.org/10.1016/j.jafr.2020.100030

Horticulture and Natural Resources

17-087-J Ten year performance of the United States national elm trial
J.J. Griffin, W.R. Jacobi, E.G. McPherson, C.S. Sadof, J.R. McKenna, M.L. Gleason, N. Ward Gauthier, D.A. Potter, D.R. Smitley, G.C. Adams, A. Brooks Gould, C.R. Cash, J.A. Walla, M.C. Starrett, G. Chastagner, J.L. Sibley, V.A. Krischik, A.F. Newby
Arboriculture and Urban Forestry
2017
Vol. 43, Issue 3, Pg. 108-121

17-092-J Raccoon (*Procyon lotor*) activity is better predicted by water availability than land cover in a moderately fragmented landscape
E.J. Heske, A.A. Ahlers
Northeastern Naturalist
September 2016
Vol. 23, Issue 3, Pg. 352-363
doi.org/10.1656/045.023.0302

17-093-J Prey distribution, potential landscape supplementation, and urbanization affect occupancy dynamics of American mink in streams
A.A. Ahlers, E.J. Heske, R.J. Schooley
Landscape Ecology
February 2016
Vol. 31, Pg. 1601-1613
doi.org/10.1007/s10980-016-0350-5

18-062-J Empirical evidence for declines in muskrat populations across the United States
A.A. Ahlers, E.J. Heske
Journal of Wildlife Management
September 2017
Vol. 84, Issue 8
doi.org/10.1002/jwmg.21328

18-063-J Where does the money go? Awareness of federal duck stamp fund expenditures among Illinois waterfowl hunters
C.A. Miller, A.A. Ahlers
Human Dimensions of Wildlife
April 2017
Vol 22, Issue 3, Pg. 291-294
doi.org/10.1080/10871209.2017.1310960

18-064-J Undergraduates' understanding of agricultural impacts on wildlife: A case for wildlife conservation education
R. Sharp, A. Ahlers
Natural Sciences Education
March 2017, Vol. 46, Issue 1
doi.org/10.4195/nse2016.11.0030

18-066-T Turning college students on to hunting: why campuses are ideal targets for R3 efforts
L.R. Larson, B. Stayton, R.L. Sharp, A.A. Ahlers and B. Downer
The Wildlife Professional
2017
11: 44-46

18-067-T Colleges and universities: Prime habitat for hunter recruitment and retention?
B. Stayton, L.R. Larson, R.L. Sharp, A.A. Ahlers, B. Downer
In Responsive Management & National Shooting Sports Foundation (Eds.), Hunting, Fishing, Sport Shooting, and Archery Recruitment, Retention, and Reactivation: A Practitioner's Guide
2017

18-068-T The science behind predator management
A.A. Ahlers
North American Gamebird Association News (Focus on Education)
2016

18-069-T Knowledge is the most effective tool of all
A.A. Ahlers
North American Gamebird Association News (Focus on Education)
2016

18-070-J Influence of invasive hybrid cattails on habitat use by common loons
S.L. Wesche, B.J. O'Neal, S.K. Windels, B.T. Olson, M. Larreur, A.A. Ahlers
Wildlife Society Bulletin
March 2018
Vol. 42, Issue 1
doi.org/10.1002/wsb.863

18-071-J Spatiotemporal distribution of waterfowl disease outbreaks in Kansas
T.A. Becker, A.A. Ahlers, S. Hesting, D.D. Haukos
The Prairie Naturalist
2019, Vol. 50

18-111-J Silencing of OsGRXS17 in rice improves drought stress tolerance by modulating ROS accumulation and stomal closure
Y. Hu, Q. Wu, Z. Peng, S.A. Sprague, W. Wang, J. Park, E. Akhunov, K.S.V. Jagadish, P.A. Nakata, N. Cheng, K.D. Hirschi, F.F. White, S. Park
Scientific Reports
November 2017, Article No. 15950
doi.org/10.1038/s41598-017-16230-7

18-145-J Nitrous oxide emissions in turfgrass systems: A review
R.C. Braun, D.J. Bremer
Agronomy Journal
September 2018
Vol. 110, No. 6, Pg. 2222-2232
doi:10.2134/agronj2018.02.0133

18-158-J The 2017 National Floriculture Forum: Engaging young people in the industry
C.T. Miller, K. Snyder, M.P. Bridgen
HortTechnology
December 2017
Vol. 27, Issue 6, Pg. 754-756
doi.org/10.21273/HORTTECH03847-17

18-159-J Nitrous oxide emissions from turfgrass receiving different irrigation amounts and nitrogen fertilizer forms
R.C. Braun, D.J. Bremer
Crop Science
May 2018
Vol. 58, No. 4, Pg. 1762-1775
doi:10.2135/cropsci2017.11.0688

18-226-J Carbon sequestration in zoysiagrass turf under different irrigation and fertilization management regimes
R. Braun, D. Bremer
Agrosystems, Geosciences & Environment
Abstract
March 2019, Vol. 1, No. 1
doi:10.2134/age2018.12.0060

18-263-J Mowing height and cultivation effects on tall fescue conversion to buffalograss
J.A. Hoye, R.C. Braun, J.A. Reeves, S.J. Keeley, D.J. Bremer
Crop, Forage, & Turfgrass Management
April 2018, Vol. 4, Issue 1
doi.org/10.2134/cftm2017.08.0061

18-264-J Mowing timing does not affect the efficacy of broadleaf herbicides applied to control dandelion (*Taraxacum officinale*)
C.S. Thompson, R.C. Braun, J.A. Hoyle, B. Van Ryzin
Crop, Forage, & Turfgrass Management
March 2018, Vol. 4, Issue 1
doi.org/10.2134/cftm2017.10.0074

18-289-J Design and construction of mowing track for turfgrass experimentation in greenhouses
R.C. Braun, J.A. Hoyle, J.A. Reeves, M.L. Flessner, J.S. McElroy
Agronomy Journal
May 2018, Vol. 110, Issue 3
doi.org/10.2134/agronj2017.11.0625

18-347-J The effect of human insect repellents on perennial ryegrass (*Lolium perenne*) growth and recovery
J.A. Hoyle, R.C. Braun, P.E. South
Crop, Forage and Turfgrass Management
June 2018, Vol. 4
doi:10.2134/cftm2018.03.0023

18-357-J Porosity and drag determination of a single-row vegetative barrier (Malura Pomifera)
H.B. Gonzales, M.E. Casada, L.J. Hagen, J. Tatarko, R.G. Maghirang, C.J. Barden
Transactions of the ASABE
2018
Vol. 61, Issue 2, Pg. 641-651
doi: 10.13031/trans.12338

18-378-J Dust reduction efficiency of a single-row vegetative barrier (*Maclura Pomifera*)
H.B. Gonzales, J. Tatarko, M.E. Casada, R.G. Maghirang, L.J. Hagen, C.J. Barden
Transactions of the ASABE
January 2018
Vol. 61, Issue 6, Pg. 1907-1914
doi: 10.13031/trans.12879

18-625-J Late-season bermudagrass control with glyphosate, fluazifop, and mesotrione combinations
J.A. Hoyle, R.C. Braun, C.S. Thompson, J.A. Reeves
Agrosystems
October 2018, Vol. 1
doi:10.2134/age2018.06.0014

18-630-S 2018 Turfgrass Research Report
J. Fry and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 6
newprairiepress.org/kaesrr/vol4/iss6/

19-062-J Postemergence herbicide tolerance of buffalograss entering winter dormancy
R.C. Braun, J.A. Hoyle, B. Van Ryzin, M.D. Sousek, C.S. Thompson
Crop, Forage and Turfgrass Management
December 2018
Vol. 4, Issue 1, Pg. 1-4
doi.org/10.2134/cftm2018.08.0064

19-069-T Don't get overmatched: Dispatch that large patch
M. Kennelly, J. Fry
Golfdom
July 2018
www.golfdom.com/dont-get-overmatched-dispatch-that-large-patch/

19-123-J Evaluating the effects of nitrogen rate and simulated golf cart traffic on 'Cody' buffalograss roughs
E.J. Alderman, J.A. Hoyle, J.A. Reeves, R.C. Braun
Crop, Forage, and Turfgrass Management
February 2019
Vol. 5, Issue 1, Pg. 1-6
doi.org/10.2134/cftm2018.09.0079

19-124-J Scalping tall fescue as soon as one day after treatment does not reduce glyphosate efficacy
C.S. Thompson, J.A. Hoyle, R.C. Braun
Applied Turfgrass Science
May 2019
Vol. 5, Issue 1, Pg. 1-5
http://doi.org/10.2134/cftm2018.12.0098

19-138-J Rootstocks shape the rhizobiome: Rhizosphere and endosphere bacterial communities in the grafted tomato system
R. Poudel, A. Jumpponen, M. Kennelly, C. Rivard, L. Gomez-Montano, K. Garrett
Applied and Environmental Microbiology
January 2019
85:e01765-18
doi.org/10.1128/AEM.01765-18

19-140-J The dollar spot susceptibility of 25 bentgrasses is consistent across five states in the central U.S.A
C. Thompson, Q. Zhang, M. Kennelly, J. Stier, C. Blume, N. Christians, J. Fry, D. Martin, J. Ostrander, K. Rincker, D. Settle, D. Soldat
Crop, Forage, & Turfgrass Management
January 2019
Vol. 5, No. 1
doi:10.2134/cftm2018.09.0075

19-245-J Computational fluid dynamics simulation of airflow through standing vegetation
H.B. Gonzales, J. Tartarko, M.E. Casada, R.G. Maghirang, L.J. Hagen, C.J. Barden
Trans. American Society of Agricultural and Biological Engineers
2019
Vol. 62, Issue 6, Pg. 1713-1722
doi: 10.13031/trans.13449

19-293-J Brown patch occurrence in a zoysiagrass-tall fescue polystand compared to a tall fescue monostand
M. Xiang, J. Fry, M. Kennelly
Crop, Forage, & Turfgrass Management
November 2019
Vol. 5, Issue 1, Pg. 1-8
doi.org/10.2134/cftm2019.04.0031

19-294-J Using small unmanned aircraft systems for early detection of drought stress in turfgrass
M. Hong, D.J. Bremer, D. van der Merwe
Crop Science
November 2019
Vol. 59 No. 6, Pg. 2829-2844
doi.org/10.2135/cropsci2019.04.0212

19-295-J Thermal imaging detects early drought stress in turfgrass utilizing small unmanned aircraft systems
M. Hong, D.J. Bremer, D. van der Merwe
Agrosystems, Geosciences & Environment
October 2019
Vol. 2, Issue 1, Pg. 1-9
doi.org/10.2134/age2019.04.0028

19-325-J Increased absorption and translocation contribute to improved efficacy of dicamba to control early growth stage Palmer amaranth (*Amaranthus palmeri*)
I. Cuvaca, R. Currie, K. Roozeboom, J. Fry, M. Jugulam
Weed Science
January 2020, Vol. 68, Issue 1
doi.org/10.1017/wsc.2019.67

Northwest Research-Extension Center

17-160-J Observational evidence of temperature trends at two levels in the surface layer
Atmospheric Chemistry and Physics
X. Lin, R. A. Pielke, R. Mahmood, C.A. Fiebrich, R. Aiken
January 2016
Vol. 16, Issue 2
doi.org/10.5194/acp-16-827-2016

17-228-J Long-term tillage on yield and water use of grain sorghum and winter wheat
A.J. Schlegel, Y. Assefa, L.A. Haag, C.R. Thompson, L.R. Stone
Agronomy Journal
January 2018
Vol. 110, Issue 1, Pg. 269-280
doi.org/10.2134/agronj2017.02.0104

17-328-J Crop water production functions of grain sorghum and winter wheat in Kansas and Texas
J.T. Moberly, R.M. Aiken, X. Lin, A.J. Schlegel, R.L. Baumhardt, R.C. Schwartz
Journal of Contemporary Water Research and Education
December 2017, Vol. 162, Issue 1
doi.org/10.1111/j.1936-704X.2017.03259.x

18-012-J Dryland corn and grain sorghum yield response to available soil water at planting
A.J. Schlegel, F.R. Lamm, Y. Assefa, L.R. Stone
Agronomy Journal
January 2018
Vol. 110, Issue 1, Pg. 236-245
doi.org/10.2134/agronj2017.07.0398

18-018-S 2017 Kansas Performance Tests with Winter Wheat Varieties, SRP1135
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-033-A Winter wheat yield responses to climate variations in the U.S. Central Great Plains
R.M. Aiken, X. Lin, Z.T. Zambreski
2017 ASABE Annual International Meeting
doi:10.13031/aim.201701661

18-147-S 2014-2017 Field Pea Performance Test Results, SRP1142
L. Haag
Kansas Agricultural Experiment Station

18-218-S 2017 Kansas Performance Tests with Corn Hybrids, SRP1136
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-227-S 2017 Kansas Performance Tests with Soybean Varieties, SRP1137
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-235-S 2017 Kansas Performance Test with Grain Sorghum Hybrids, SRP1138
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-278-S 2017 Kansas Performance Tests with Sunflower Hybrids, SRP1140
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-338-J Yield and overall productivity under long-term wheat-based crop rotations: 2000 through 2016
A.J. Schlegel, Y. Assefa, L.A. Haag, C.R. Thompson, L.R. Stone
Agronomy Journal
January 2019
Vol. 111, Issue 1, Pg. 264-274
doi.org/10.2134/agronj2018.03.0171

18-628-S 2018 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 7
newprairiepress.org/kaesrr/vol4/iss7/

19-119-S 2018 Kansas Performance Tests with Corn Hybrids, SRP1145
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-220-J A review of in-canopy and near-canopy sprinkler irrigation concepts
F.R. Lamm, J.P. Bordovsky, T.A. Howell Sr.
Transactions of the ASABE
2019
62(5): 1355-1364
doi: 10.13031/trans.13229

19-022-S 2018 Kansas Performance Tests with Winter Wheat Varieties, SRP1143
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-178-S 2018 Kansas Performance Tests with Soybean Varieties, SRP1146
J. Lingenfelser and other co-authors
Kansas Agricultural Experiment Station

19-191-S 2018 Kansas Performance Tests with Grain Sorghum Hybrids, SRP1147
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-205-S 2018 Kansas Performance Tests with Sunflower Hybrids, SRP1149
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-224-J Targeted, precision irrigation for moving platforms: selected papers from a center pivot technology transfer effort
F.R. Lamm, D.O. Porter, J.P. Bordovsky, S.R. Evett, S.A. O'Shaughnessy, K. C. Stone, W. L. Kranz, D. H. Rogers, P.D. Colaizzi
Transactions of the ASABE
2019
62(5): 1409-1415
doi: 10.13031/trans.13371

19-254-J Productivity and profitability of four crop rotations under limited irrigation
A.J. Schlegel, Y. Assefa, and D. O'Brien
Transactions of the ASABE
2020, Vol. 36, Issue 1, Pg. 109
doi.org/10.13031/aea.13416

Plant Pathology

17-146-J World data centre for microorganisms: an information infrastructure to explore and utilize preserved microbial strains worldwide
L. Wu, Q. Sun, P. Desmeth, H. Sugawara, Z. Xu, K. McCluskey, D. Smith, V. Alexander, N. Lima, M. Ohkuma, V. Robert, Y. Zhou, J. Li, G. Fan, S. Ingsriswang, S. Ozerskaya, J. Ma
Nucleic Acids Research
October 2017
Vol. 45, Issue D1, Pg. D611-D618
doi.org/10.1093/nar/gkw903

17-148-J Diverse data supports the transition of filamentous fungal model organisms into the post-genomics era
K. McCluskey, S.E. Baker
Mycology, An International Journal on Fungal Biology
February 2017
Vol. 8, Issue 2, Pg. 67-83
doi.org/10.1080/21501203.2017.1281849

17-233-J Point of view: The challenges faced by living stock collections in the USA
K. McCluskey, K. Boundy-Mills, G. Dye, E. Ehmke, G.F. Gunnell, H. Kiaris, M. Polihronakis Richmond, A.D. Yoder, D.R. Zeigler, S. Zehr, E. Grotewold
eLife
March 2017
doi: 10.7554/eLife.24611

17-253-B Plant pathogens as indicators of climate change
K.A. Garrett, M. Nita, E.D. De Wolf, L. Gomez, A.H. Sparks
Climate change: observed impacts on planet earth
2016
Elsevier, New York Pg. 325-338

17-330-J Dynamic changes in the rice blast population in the United States over six decades
X. Wang, Y. Jia, Y. Wamishe, M.H. Jia, B. Valent
Molecular Plant Microbe Interactions
October 2017, Vol. 30, No. 10
doi.org/10.1094/MPMI-04-17-0101-R

17-345-J The US Culture Collection Network responding to the requirements of the Nagoya Protocol on access and benefit sharing
K. McCluskey, K.B. Barker, H.A. Barton, K. Boundy-Mills, D.R. Brown, J.A. Coddington, K. Cook, P. Desmeth, D. Geiser, J.A. Glaeser, S. Greene, S. Kang, M.W. Lomas, U. Melcher, S.E. Miller, D.R. Nobles Jr., K.J. Owens, J.H. Reichman, M. da Silva, J. Wertz, C. Whitworth, D. Smith
American Society for Microbiology
August 2017
doi.org/10.1128/mBio.00982-17

17-356-J Evolution of the wheat blast fungus through functional losses in a host specificity determinant
Y. Inoue, T.T.P. Vy, K. Yoshida, H. Asano, C. Mitsuoka, S. Asuke, V.L. Anh, C.J.R. Cumagun, I. Chuma, R. Terauchi, K. Kato, T. Mitchell, B. Valent, M. Farman, Y. Tosa
Science
July 2017, Vol. 357, Issue 6346
doi: 10.1126/science.aam9654

18-034-J QTL mapping of pre-harvest sprouting resistance in a white wheat cultivar Danby
M. Shao, G. Bai, T.W. Rife, J. Poland, M. Lin, S. Liu, H. Chen, T. Kumssa, A. Fritz, H. Trick, Y. Li, G. Zhang
Theoretical and Applied Genetics
June 2018
Vol. 131, Vol. 8, Pg. 1683-1697
doi.org/10.1007/s00122-018-3107-5

18-097-B Annual Wheat Newsletter
W. J. Raupp, Editor
Annual Wheat Newsletter
September 2017, Vol. 63
http://hdl.handle.net/2097/38150

18-104-J Genes expressed differentially in Hessian fly larvae feeding in resistant and susceptible plants
M.S. Chen, S. Liu, H. Wang, X. Cheng, M.E. Bouhssini, R.J. Whitworth
International Journal of Molecular Science
August 2016 Vol. 17, Issue 8
doi.org/10.3390/ijms17081324

18-105-J Characterization of maize roothairless6 which encodes a D-type cellulose synthase and controls the switch from bulge formation to tip growth
L. Li, S. Hey, S. Liu, Q. Liu, C. McNinch, H.C. Hu, T.J. Wen, C. Marcon, A. Paschold, W. Bruce, P.S. Schnable, F. Hochholdinger
Scientific Reports
October 2016
Vol. 6, Article No.: 34395
doi.org/10.1038/srep34395

18-106-J Complete genome sequence of the African strain AXO1947 of *Xanthomonas oryzae* pv. oryzae
J.C. Huguet-Tapia, Z. Peng, B. Yang, Z. Yin, S. Liu, F.F. White
American Society for Microbiology Journals
February 2016, Vol. 4, Issue 1
doi: 10.1128/genomeA.01730-15

18-107-J A dimorphic and virulence-enhancing endosymbiont bacterium discovered in *Rhizoctonia solani*
K. Obasa, F.F. White, J. Fellers, M. Kennelly, S. Liu, B. Katz, J. Tomich, D. Moore, H. Shinogle, K. Kelley
Phytobiomes
January 2017, Vol. 1, No. 1
doi.org/10.1094/PBIOMES-08-16-0005-R

18-108-J Complete genome sequencing and targeted mutagenesis reveal virulence contributions of Tal2 and Tal4b of *Xanthomonas translucens* pv. undulosa ICMP11055 in bacterial leaf streak of wheat
N.F. Charkhabi, N.J. Booher, Z. Peng, L. Wang, H. Rahimian, M. Shams-Bakhsh, Z. Liu, S .Liu, F.F. White, A.J. Bogdanove
Frontiers in Microbiology
August 2017, Vol. 8
doi.org/10.3389/fmicb.2017.01488

18-109-J A comprehensive analysis of alternative splicing in paleopolyploid maize
W. Mei, S. Liu, J.C. Schnable, C.T. Yeh, N.M. Springer, P.S. Schnable, W.B. Barbazuk
Frontiers in Plant Science
May 2017, Vol. 8
doi.org/10.3389/fpls.2017.00694

18-110-J RD26 mediates crosstalk between drought and brassinosteroid signalling pathways
H. Ye, S. Liu, B. Tang, J. Chen, Z. Xie, T.M. Nolan, H. Jiang, H. Guo, H.Y. Lin, L. Li, Y. Wang, H. Tong, M. Zhang, C. Chu, Z. Li, M. Aluru, S. Aluru, P.S. Schnable, Y. Yin
Nature Communications
February 2017
Vol. 8, Article No. 14573
doi.org/10.1038/ncomms14573

18-111-J Silencing of OsGRXS17 in rice improves drought stress tolerance by modulating ROS accumulation and stomatal closure
Y. Hu, Q. Wu, Z. Peng, S.A. Sprague, W. Wang, J. Park, E. Akhunov, K.S.V. Jagadish, P.A. Nakata, N. Cheng, K.D. Hirschi, F.F. White, S. Park
Scientific Reports
November 2017, Article No. 15950
doi.org/10.1038/s41598-017-16230-7

18-134-J RNAi-mediated silencing of endogenous wheat genes eIF(iso)4E-2 and eIF4G induce resistance to multiple RNA viruses in transgenic wheat.
J.S. Rupp, L. Cruz, H.N. Trick, J.P. Fellers
Genomic, Molecular Genetic & Biotechnology
November 2019
Vol. 59, Issue 6, Pg. 2642-2651
doi.org/10.2135/cropsci2018.08.0518

18-142-J Frozen fungi: Cryogenic storage is an effective method to store *Fusarium* cultures for the long-term
K.M. Webb, G. Holman, S. Duke, S. Greene, K. McCluskey
Annals of Applied Biology
July 2018, Vol. 173, Issue 2
doi.org/10.1111/aab.12442

18-162-J Wheat differential gene expression induced by different races of *Puccinia triticina*
K.A. Neugebauer, M. Bruce, T. Todd, H.N. Trick, J.P. Fellers
PLOS One
June 2018, Vol. 13, Issue 6
doi.org/10.1371/journal.pone.0198350

18-174-J A single fungal MAP kinase controls plant cell-to-cell invasion by the rice blast fungus
W. Sakulkoo, M. Osés-Ruiz, E.O. Garcia, D.M. Soanes, G.R. Littlejohn, C. Hacker, A. Correia, B. Valent, N.J. Talbot
Science
March 2018, Vol. 359, Issue 6382
doi: 10.1126/science.aaq0892

18-182-J Charcoal rot and Fusarium stalk rot diseases influence sweet sorghum sugar attributes
Y.M.A.Y. Bandara, T.T. Tesso, K. Zhang, D. Wang, C.R. Little
Industrial Crops and Products
February 2018
Vol. 112, Pg. 188-195
doi.org/10.1016/j.indcrop.2017.11.012

18-189-J Extrachromosomal circular DNA-based amplification and transmission of herbicide resistance in crop weed *Amaranthus palmeri*
D.-H. Koo, W.T. Molin, C.A. Saski, J. Jiang, K. Putta, M. Jugulam, B. Friebe, B.S. Gill
PNAS
March 2018
Vol. 115, Issue 13, Pg. 3332-3337
doi.org/10.1073/pnas.1719354115

18-192-J The rice blast resistance gene Ptr encodes an atypical protein required for broad-spectrum disease resistance
H. Zhao, X. Wang, Y. Jia, B. Minkenberg, M. Wheatley, J. Fan, M.H. Jia, A. Famoso, J.D. Edwards, Y. Wamishe, B. Valent, G.L. Wang, Y. Yang
Nature Communications
May 2018
doi.org/10.1038/s41467-018-04369-4

18-200-J Chromosome rearrangements caused by double monosomy in wheat-barley group-7 substitution lines
T.V. Danilova, B. Friebe, B.S. Gill, J. Poland, E. Jackson
Cytogenetic Genome Research
February 2018
Vol. 154, No. 1, Pg. 45-55
doi.org/10.1159/000487183

18-218-S 2017 Kansas Performance Tests with Corn Hybrids, SRP1136
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-222-J Agronomic practices for reducing wheat yield gaps: A quantitative appraisal for progressive producers
R.P. Lollato, D.A. Ruiz Diaz, E. DeWolf, M. Knapp, D.E. Peterson, A.K. Fritz
Crop Science
January 2019, Vol. 59, Issue 1
doi.org/10.2135/cropsci2018.04.0249

18-225-J MycoKey round table discussions of future directions in research on chemical detection methods, genetics and biodiversity of mycotoxins
J.F. Leslie, V. Lattanzio, K. Audenaert, P. Battilani, J. Cary, S.N. Chulze, S. De Saeger, A. Gerardino, P. Karlovsky, Y.C. Liao, C.M. Maragos, G. Meca, A. Medina, A. Moretti, G. Munkvold, G. MulË, P. Njobeh, I. Pecorelli, G. Perrone, A. Pietri, J.M. Palazzini, R.H. Proctor, E.S. Rahayu, M.L. RamÌrez, R. Samson, J. Stroka, M. Sulyok, M. Sumarah, C. Waalwijk, Q. Zhang, H. Zhang, A.F. Logrieco
Toxins
March 2018, Vol. 10, Issue 3
doi: 10.3390/toxins10030109

18-294-J The Mycotox Charter: Increased awareness for harmonized research on and regulation of mycotoxins worldwide
A.F. Logrieco, J.D Miller, M. Eskola, R. Krska, A. Ayalew, R. Bandyopadhyay, P. Battilani, D. Bhatnagar, S. Chulze, S. De Saeger, P. Li, G. Perrone, A. Poapolathep, E.S. Rahayu, G.S. Shephard, F. Stepman, H. Zhang, J.F. Leslie
Toxins
April 2018, Vol. 10, Issue 4
doi.org/10.3390/toxins10040149

18-235-S 2017 Kansas Performance Test with Grain Sorghum Hybrids, SRP1138
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-321-J The necrotrophic fungus *Macrophomina phaseolina* promotes charcoal rot susceptibility in grain sorghum through induced host cell wall-degrading enzymes
Y.M.A.Y. Bandara, D.K. Weerasooriya, S. Liu, C.R. Little
Biochemistry and Cell Biology
June 2018
Vol. 108, No. 8
doi.org/10.1094/PHYTO-12-17-0404-R

18-336-J Effector gene reshuffling involves dispensable mini-chromosomes in the wheat blast fungus
Z. Peng, E.O. Garcia, G. Lin, Y. Hu, M. Dalby, P. Migeon, H. Tang, M. Farman, D. Cook, F.F. White, B.Valent, S. Liu
PloS Genetics
September 2019
Vol. 15, Issue 9
doi.org/10.1371/journal.pgen.1008272

18-400-J Efficient curation of genebanks using next generation sequencing reveals substantial duplication of germplasm accessions
N. Singh, S. Wu, W.J. Raupp, S. Sehgal, S. Arora, V. Tiwari, P. Vikram, S. Singh, P. Chunneja, B.S. Gill, J. Poland
Scientific Reports
January 2019
Vol. 9, Article No. 650
doi.org/10.1038/s41598-018-37269-0

18-409-B Sorghum diseases and their management in cultivation: seedling, seed, panicle and foliar diseases
C.R. Little, A.Y. Bandara, R. Perumal
Achieving sustainable cultivation of sorghum
July 2018, Vol. 1
https://shop.bdspublishing.com/store/bds/detail/product/3-190-9781838795436

18-410-B Sorghum diseases and their management in cultivation: stalk, root and other diseases
C. Little, A.Y. Bandara, T.C. Todd, R. Perumal
Achieving sustainable cultivation of sorghum
July 2018, Vol. 1
https://shop.bdspublishing.com/store/bds/detail/product/3-190-9781838797652

18-498-J Alien chromosome segment from *Aegilops speltoides* or *Dasypyrum villosum* increases drought tolerance in wheat via profuse and deep root system
M. Djanaguiraman, P.V.V. Prasad, J. Kumari, S.K. Sehgal, B. Friebe, I. Djalovic, Y. Chen, K.H.M. Siddique, B.S. Gill
BMC Plant Biology
June 2019, Vol. 19, Article No. 242
doi.org/10.1186/s12870-019-1833-8

18-634-J Field-based high-throughput phenotyping of plant height in sorghum using different sensing technologies
X. Wang, D. Singh, S. Marla, G. Morris, J. Poland
Plant Methods
July 2018 Vol. 14, Article No. 53
doi.org/10.1186/s13007-018-0324-5

19-004-J Hybrid transcription factor engineering activates the silent secondary metabolite gene cluster for (+)- asperlin in *Aspergillus nidulans*
M. Grau, R. Entwistle, Yi-M. Chiang, M. Ahuja, C.E. Oakley, T. Akashi, C.C.C. Wang, R.B. Todd, B.R. Oakley
ACS Chemical Biology
October 2018
Vol. 13, Issue 11, Pg. 3193-3205
doi.org/10.1021/acschembio.8b00679

19-008-J Panel of three loop-mediated isothermal amplification assays differentiates *Rathayibacter toxicus* populations RT-I, RT-II, RT-III, RT-IV, and RT-V
J. Yasuhara-Bell, J.P. Stack
Journal of Plant Pathology
February 2019
Vol. 101, Pg. 707-717
doi.org/10.1007/s42161-018-00232-z

19-014-J Low-temperature tolerance of maize and sorghum seedlings grown under the same environmental conditions
R.M. Antony, M.B. Kirkham, T.C. Todd, S.R. Bean, J.D. Wilson, P.R. Armstrong, E. Maghirang, D.L. Brabec
Journal of Crop Improvement
March 2019
Vol. 33, Issue 3
doi.org/10.1080/15427528.2019.1579139

19-119-S 2018 Kansas Performance Tests with Corn Hybrids, SRP1145
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-020-J Co-expression analysis aids in the identification of genes in the cuticular wax pathway in maize
J. Zheng, C. He, Y. Qin, G. Lin, D. Park, M. Sun, J. Li, X. Lu, C. Zhang, C. Zhang, C.-T. Yeh, C. Gunasekara, E. Zeng, H. Wei, P.S. Schnable, G. Wang, S. Liu
The Plant Journal
February 2019
Vol. 97, Issue 3, Pg. 530-542
doi.org/10.1111/tpj.14140

19-022-S 2018 Kansas Performance Tests with Winter Wheat Varieties, SRP1143
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-035-J Nitrogen management and uptake by corn on no-till and ridge-till claypan soil
D.W. Sweeney, D. Ruiz-Diaz, D.J. Jardine
Agrosystems, Geosciences & Environment
November 2018
Vol. 1, Issue 1, Pg. 1-6
doi.org/10.2134/age2018.09.0034

19-040-B Annual Wheat Newsletter, Vol. 64
W. John Raupp, Ed.
Annual Wheat Newsletter
2018
http://hdl.handle.net/2097/39166

19-041-J Registration of Hessian fly-resistant germplasm KS18WGRC65 carrying H26 in hard red winter wheat 'Overley' background
N. Singh, R. Steeves, M.-S. Chen, M. El-Bouhssini, M. Pumphrey, J. Poland
Journal of Crop Registrations
May 2020
Vol. 14, Issue 12, Pg. 206-209
doi.org/10.1002/plr2.20003

19-042-J Genomic analysis confirms population structure and identifies inter-lineage hybrids in *Aegilops tauschii*
N. Singh, S. Wu, V. Tiwari, S. Sehgal, J. Raupp, D. Wilson, M. Abbasov, B. Gill, J. Poland
Frontiers in Plant Science
January 2019, Vol. 10, Issue 9
doi.org/10.3389/fpls.2019.00009

19-056-J Plant population and fungicide economically reduced winter wheat yield gap in Kansas
B.R. Jaenisch, A. de Oliveira Silva, E. DeWolf, D.A. Ruiz-Diaz, R.P. Lollato
Agronomy Journal
March 2019
Vol. 111, Issue 2, Pg. 650-665
doi.org/10.2134/agronj2018.03.0223

19-057-J Assessment of insecticide/miticide treatments on soybean cyst nematode bioassays under greenhouse conditions
J. Brungardt, T.C. Todd, T.R. Oakley, H.N. Trick
Plant Health Progress
April 2019, Vol. 20, No. 2
doi.org/10.1094/PHP-10-18-0058-BR

19-059-J Wheat virus identification within infected tissue using nanopore sequencing technology
J.P. Fellers, C. Webb, M.C. Fellers, J.S. Rupp, E. De Wolf
Plant Disease
September 2019
Vol. 103, Issue 9, Pg. 2199-2203
doi: 10.1094/PDIS-09-18-1700-RE

19-069-T Don't get overmatched: Dispatch that large patch
M. Kennelly, J. Fry
Golfdom
July 2018
www.golfdom.com/dont-get-overmatched-dispatch-that-large-patch/

19-079-J A response to Gupta et al. (2019) regarding the MoT3 wheat blast diagnostic assay
J. Yasuhara-Bell, M.L. Pieck, A. Ruck, M.L. Farman, G.L. Peterson, J.P. Stack, B. Valent, K.F. Pedley
Phytopathology
April 2019, Vol. 109, No. 4
doi.org/10.1094/PHYTO-10-18-0397-LE

19-115-J Isolation by distance, source-sink population dynamics and dispersal facilitation by trade routes: Impact on population genetic structure of a stored grain pest
E.M.G. Cordeiro, J.F. Campbell, T. Phillips, E. Akhunov
G3: Genes|Genomes|Genetics
May 2019
Vol. 9, No. 5, Pg. 1457-1468
doi.org/10.1534/g3.118.200892

19-132-J Mycotoxins produced by *Fusarium proliferatum* and *F. pseudonygamai* on maize, sorghum and pearl millet grains in vitro
H.F. Vismer, G.S. Shephard, L. van der Westhuizen, P. Mngqawa, V. Bushula-Njah, J.F. Leslie
International Journal of Food Microbiology
May 2019, Vol. 296, Pg. 31-36
doi.org/10.1016/j.ijfoodmicro.2019.02.016

19-133-B *Agrobacterium*-mediated transformation of *Solanum tuberosum L.*, potato
M.A. Bruce, J.L. Shoup Rupp
Transgenic Plants
November 2018, Vol. 1864
doi.org/10.1007/978-1-4939-8778-8_15

19-138-J Rootstocks shape the rhizobiome: Rhizosphere and endosphere bacterial communities in the grafted tomato system
R. Poudel, A. Jumpponen, M. Kennelly, C. Rivard, L. Gomez-Montano, K. Garrett
Applied and Environmental Microbiology
January 2019
85:e01765-18
doi.org/10.1128/AEM.01765-18

19-140-J The dollar spot susceptibility of 25 bentgrasses is consistent across five states in the central U.S.A.
C. Thompson, Q. Zhang, M. Kennelly, J. Stier, C. Blume, N. Christians, J. Fry, D. Martin, J. Ostrander, K. Rincker, D. Settle, D. Soldat
Crop, Forage, & Turfgrass Management
January 2019, Vol. 5, No. 1
doi:10.2134/cftm2018.09.0075

19-144-B Distribution and importance of plant nematodes in Nebraska, Kansas and Colorado
T.C. Todd. T. Powers
Plant Parasitic Nematodes in Sustainable Agriculture of North America
December 2018, Pg. 109-123
doi.org/10.1007/978-3-319-99588-5_5

19-155-J Gene editing and mutagenesis reveal inter-cultivar differences and additivity in the contribution of TaGW2 homoeologues to grain size and weight in wheat
W. Wang, J. Simmonds, Q. Pan, D. Davidson, F. He, A. Battal, A. Akhunova, H.N. Trick, C. Uauy, E. Akhunov
Theoretical and Applied Genetics
August 2018
Vol. 131, Pg. 2463-2475
doi.org/10.1007/s00122-018-3166-7

19-156-J The genetic architecture of genome-wide recombination rate variation in allopolyploid wheat revealed by nested association mapping
K. Jordan, S. Wang, F. He, S. Chao, Y. Lun, E. Paux, P. Sourdille, J. Sherman, A. Akhunova, N. Blake, M. Pumphrey, K. Glover, J. Dubcovsky, L. Talbert, E. Akhunov
The Plant Journal
June 2018
Vol. 95, Issue 6, Pg. 1039-1054
doi.org/10.1111/tpj.14009

19-157-J Transgenerational CRISPR-Cas9 activity facilitates multiplex gene editing in allopolyploid wheat
W. Wang, Q. Pan, F. He, A. Akhunova, S. Chao, H. Trick, E. Akhunov
The CRISPR Journal
February 2018, Vol. 1, No. 1
doi.org/10.1089/crispr.2017.0010

19-158-J Genotype imputation in winter wheat using first-generation haplotype map SNPs improves genome-wide association mapping and genomic prediction of traits
M. Nyine, S. Wang, K. Kiani, K. Jordan, S. Liu, P. Byrne, S. Haley, S. Baenziger, S. Chao, R. Bowden, E. Akhunov
G3: Genes, Genomes, Genetics
January 2019, Vol. 9, No. 1, Pg. 125-133
doi.org/10.1534/g3.118.200664

19-159-J Identification and validation of QTL for grain yield and plant water status under contrasting water treatments in fall-sown spring wheats
J. Zhang, S.A. Gizaw, E. Bossolini, J. Hegarty, T. Howell, A.H. Carter, E. Akhunov, J. Dubcovsky
Theoretical and Applied Genetics
May 2018
Vol. 131, Pg. 1741-1759
doi.org/10.1007/s00122-018-3111-9

19-160-J A comparison between genotyping-by-sequencing and array-based scoring of SNPs for genomic prediction accuracy in winter wheat
I.S. Elbasyoni, A.J. Lorenz, M. Guttieri, K. Frels, P.S. Baenziger, J. Poland, E. Akhunov
Plant Science
May 2018, Vol. 270, Pg. 123-130
doi.org/10.1016/j.plantsci.2018.02.019

19-161-A Unraveling the mechanisms of stem rust resistance conferred by the Sr35 gene against the *Puccinia graminis* pathogen
E. Akhunov, A. Salcedo, W. Rutter, S. Wang, S. Bolus, A. Akhunova, S. Chao, M.N. Rouse, L.J. Szabo, J. Dubcovsky, R.L. Bowden
Proceedings of the 13th International Wheat Genetics Symposium, Tulln, Austria
April 2017
ISBN: 978-3-900932-48-0

19-162-J Integrating genomic resources to present full gene and putative promoter capture probe sets for bread wheat
L.J. Gardiner, T. Brabbs, A. Akhunova, K. Jordan, H. Budak, T. Richmond, S. Singh, L. Catchpole, E. Akhunov, A. Hall
GigaScience
January 2019, Vol. 8, Issue 4
doi.org/10.1093/gigascience/giz018

19-167-B Biolistic transformation of wheat
B. Tian, M. Navia-Urrutia, Y. Chen, J. Brungardt, H.N. Trick
Transgenic Plants: Methods in Molecular Biology
November 2018, Vol. 1864, Pg. 117-130
doi.org/10.1007/978-1-4939-8778-8_9

19-169-J Insect-specific viruses: from discovery to potential translational applications
S. Nouri, E.E. Matsumura, Y.W. Kuo, B.W. Falk
Current Opinion in Virology
December 2018
Vol. 33, Pg. 33-41
doi.org/10.1016/j.coviro.2018.07.006

19-171-J Emerging pathogens and diseases: Where do they come from?
B.C. Rodoni, R. Mann, G.R. Smith, T.A. Chapman, J.P. Stack
Annals of Biological Sciences
2018
Vol. 6, Issue 1, Pg. 23-25

19-172-J Principles of diagnostic assay validation for plant pathogens: A basic review of concepts
K. Cardwell, G. Dennis, A. Flannery, J. Fletcher, D. Luster, M. Nakhla, A. Rice, P. Shiel, J. Stack, C. Walsh, L. Levy (in memorium)
Plant Health Progress
October 2018, Vol. 19, No. 4
doi.org/10.1094/PHP-06-18-0036-RV

19-173-J Synergetic effect of non-complementary 5' AT-rich sequences on the development of a multiplex TaqMan real-time PCR for specific and robust detection of *Clavibacter michiganensis* and C. *michiganensis* subsp. *nebraskensis*
A. Larrea-Sarmiento, A.M. Alvarez, J.P. Stack, M. Arif
PLOS ONE
July 2019, 14(7)
doi.org/10.1371/journal.pone.0218530

19-177-T Rhizoctonia seed, seedling and root rot of lentil
J.L.S. Rupp, M.A. Bruce, T. Paulitz
Lentil Disease Diagnostic Series PP1913, NDSU Extension Publications
January 2019

19-191-S 2018 Kansas Performance Tests with Grain Sorghum Hybrids, SRP1147
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-218-J Multiplex restriction amplicon sequencing: a novel next-generation sequencing-based marker platform for high-throughput genotyping
A. Bernardo, P. St. Amand, H.Q. Le, Z. Su, G. Bai
Plant Biotechnology Journal
January 2020
Vol. 18, Issue 1, Pg. 254-265
doi.org/10.1111/pbi.13192

19-226-J Fusarium head blight and mycotoxins in wheat: prevention and control strategies across the food chain
A.M. Torres, S.A. Palacios, N. Yerkovich, J.M. Palazzini, P. Battilani, J.F. Leslie, A.F. Logrieco, S.N. Chulze
World Mycotoxin Journal
July 2019, 12(4), Pg. 333-355
doi.org/10.3920/WMJ2019.2438

19-251-J Registration of 17 sorghum pollinator germplasm lines resistant to acetolactate synthase (ALS)-inhibitor herbicides
T. Tesso, D.D. Gobena, R. Perumal, S. Bean, J. Wilson, C. Little
Journal of Plant Registrations
March 2019
Vol. 13, Issue 2, Pg. 212-216
doi:10.3198/jpr2018.05.0032crg

19-273-J Comparative genomic analysis confirms five genetic populations of the select agent, *Rathayibacter toxicus*
J. Yasuhara-Bell, M. Arif, G.Y. Busot, R. Mann, B. Rodoni, J.P. Stack
microorganisms
March 2020
Vol. 8, Issue 3, Page 366
doi.org/10.3390/microorganisms8030366

19-288-J Production of a complete set of wheat-barley group-7 chromosome recombinants with increased grain β-glucan content
T.V. Danilova, J. Poland, B. Friebe
Theoretical and Applied Genetics
September 2019
Article No. 132, Pg. 3129-3141
doi.org/10.1007/s00122-019-03411-3

19-290-J Preserving US microbe collections to spark future discoveries
K. Boundy-Mills, K. McCluskey, P. Elia, J.A. Glaeser, D.L. Lindner, D.R. Nobles, Jr., F.M. Ochoa-Corona, J.A. Scott, T.J. Ward, K.M. Webb, K. Webster, J. Wertz
Journal of Applied Microbiology
November 2019
doi.org/10.1111/jam.14525

19-292-J Stalk rot resistant sorghum genotypes are resilient to pathogen-mediated photosystem II quantum yield retardation
A.Y. Bandara, D.K. Weerasooriya, T.T. Tesso, C.R. Little
Crop Protection
October 2019, Vol. 124
doi.org/10.1016/j.cropro.2019.104852

19-293-J Brown patch occurrence in a zoysiagrass-tall fescue polystand compared to a tall fescue monostand
M. Xiang, J. Fry, M. Kennelly
Crop, Forage, & Turfgrass Management
November 2019
Vol. 5, Issue 1, Pg. 1-8
doi.org/10.2134/cftm2019.04.0031

19-301-J *Fusarium* species from sorghum in Thailand
N. M. I. Mohamed Nor, B. Salleh, J. F. Leslie
The Plant Pathology Journal
August 2019
Vol. 35, Issue 4, Pg. 301-312
doi.org/10.5423/PPJ.OA.03.2019.0049

19-303-J Novel sources of wheat head blast resistance in modern breeding lines and wheat wild relatives
G. Cruppe, C.D. Cruz, G. Peterson, K. Pedley, M. Asif, A. Fritz, L. Calderon, C. Lemes da Silva, T. Todd, P. Kuhnem, P. K. Singh, R.P. Singh, H.-J. Braun, N.C.D. Barma, B. Valent
Plant Disease
January 2020, Vol. 104, No. 1
doi.org/10.1094/PDIS-05-19-0985-RE

19-314-J Meta-analysis of QTLs for Fusarium head blight resistance in Chinese wheat landraces
J. Cai, S. Wang, Z. Su, T. Li, X. Zhang, G. Bai
The Crop Journal
December 2019
Vol.7, Issue 6, P. 784-798
doi.org/10.1016/j.cj.2019.05.003

19-320-J A CRISPR-Cas9 system for genome editing of *Fusarium proliferatum*
M. Ferrara, M. Haidukowski, A.F. Logrieco, J.F. Leslie, G. Mulè
Scientific Reports
December 2019
Vol. 9, Article 19836
doi.org/10.1038/s41598-019-56270-9

19-333-J Biodegradable drug-delivery peptide nano-capsules
E. Wessel, J.M. Tomich, R.B. Todd
ACS-Omega
November 2019
Vol. 4, Issue 22, Pg. 20059-20063
doi.org/10.1021/acsomega.9b03245

Southeast Research and Extension Center

16-274-J Water quality assessment in the Cherry Creek watershed: Patterns of nutrient runoff in an agricultural watershed
V.J. Alarcon, G.F. Sassenrath
Journal of Soil and Water Conservation
May 2018
Vol. 73, Issue 3, Pg. 229-246
doi.org/10.2489/jswc.73.3.229

18-018-S 2017 Kansas Performance Tests with Winter Wheat Varieties, SRP1135
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-019-J Nitrogen management for forage production from endophyte-free tall fescue grown on clay-pan soil
D.W. Sweeney, J.L. Moyer, J.K. Farney
Crop, Forage & Turfgrass Management
December 2017
Vol. 3, Issue 1
doi.org/10.2134/cftm2017.07.0051

18-161-J Factors affecting model sensitivity and uncertainty: Application to an irrigation scheduler
A.C. Linhoss, M.L. Tagert, H. Buka, G. Sassenrath
Transactions ASABE
February 2017
Vol. 60, Issue 3, Pg. 803-312
doi: 10.13031/trans.11912

18-218-S 2017 Kansas Performance Tests with Corn Hybrids, SRP1136
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-227-S 2017 Kansas Performance Tests with Soybean Varieties, SRP1137
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-235-S 2017 Kansas Performance Test with Grain Sorghum Hybrids, SRP1138
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-262-J Storage losses from large round bales of alfalfa, tall fescue, and big bluestem hay
L. Lomas, J. Slocombe, G. Milliken
Applied Engineering in Agriculture
January 2018
Vol. 32, Issue 2, Pg. 445-454
doi: 10.13031/aea.12681

18-278-S 2017 Kansas Performance Tests with Sunflower Hybrids, SRP1140
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-345-S 2018 Southeast Agricultural Research Center Agricultural Research Report
L. Lomas and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 3
newprairiepress.org/kaesrr/vol4/iss3/

18-517-J Temporal variation of soil microbial properties in a corn-wheat-soybean systems
C.-J. Hsiao, G.F. Sassenrath, L.H. Zeglin, G.M. Hettiarachchi, C.W. Rice
Soil Science Society of America Journal
October 2019
Vol. 83, No. 6, Pg. 1696-1711
doi:10.2136/sssaj2019.05.0160

18-609-J Short communication: Evaluation of 2 implants for growing steers grazing tall-grass prairie when using intensive early stocking
J. K. Farney, M. Corrigan
Applied Animal Science
February 2019
Vol. 35, Issue 1, Pg. 83-87
doi.org/10.15232/aas.2018-01768

18-628-S 2018 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 7
newprairiepress.org/kaesrr/vol4/iss7/

18-629-S 2018 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 5
newprairiepress.org/kaesrr/vol4/iss5/

19-011-B Precision conservation and precision regulation
J.A. Delgado, G.F. Sassenrath
Agronomy Monographs. Precision Conservation: Geospatial Techniques for Agricultural and Natural Resources Conservation
2018, Vol. 59, Ch. 17
doi.org/10.2134/agronmonogr59.c17

19-012-B Precision conservation: geospatial techniques for agricultural and natural resources conservation
J.A. Delgado, G.F. Sassenrath, T. Mueller
Agronomy Monographs. Precision Conservation: Geospatial Techniques for Agricultural and Natural Resources Conservation
2017
Vol. 59, Online ISBN:9780891183563
doi:10.2134/agronmonogr59

19-022-S 2018 Kansas Performance Tests with Winter Wheat Varieties, SRP1143
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-035-J Nitrogen management and uptake by corn on no-tillage and ridge-tillage claypan soil
D.W. Sweeney, D. Ruiz-Diaz, D.J. Jardine
Agrosystems, Geosciences & Environment
December 2018
Vol. 1, Issue 1, Pg. 1-6
doi.org/10.2134/age2018.09.0034

19-090-S 2019 Cattlemen's Day Research Report
E.A. Boyle and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 1
newprairiepress.org/kaesrr/vol5/iss1/

19-119-S 2018 Kansas Performance Tests with Corn Hybrids, SRP1145
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-145-J Impact of fungicide and insecticide use on wheat production in a high-rainfall environment
G. Sassenrath, J. Farney, R. Lollato
Crops, Forage & Turfgrass Management
October 2019
Vol. 5, Issue 1, Pg. 1-10
doi.org/10.2134/cftm2019.01.0008

19-178-S 2018 Kansas Performance Tests with Soybean Varieties, SRP1146
J. Lingenfelser and other co-authors
Kansas Agricultural Experiment Station

19-191-S 2018 Kansas Performance Tests with Grain Sorghum Hybrids, SRP1147
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-205-S 2018 Kansas Performance Tests with Sunflower Hybrids, SRP1149
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-286-S 2019 Southeast Agricultural Research Center Agricultural Research Report
L. Lomas and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 2
newprairiepress.org/kaesrr/vol5/iss2/

19-318-S 2019 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 4
newprairiepress.org/kaesrr/vol5/iss4/

Southwest Research-Extension Center

17-228-J Long-term tillage on yield and water use of grain sorghum and winter wheat
A.J. Schlegel, Y. Assefa, L.A. Haag, C.R. Thompson, L.R. Stone
Agronomy Journal
January 2018
Vol. 110, Issue 1, Pg. 269-280
doi.org/10.2134/agronj2017.02.0104

17-328-J Crop water production functions of grain sorghum and winter wheat in Kansas and Texas
J.T. Moberly, R.M. Aiken, X. Lin, A.J. Schlegel, R.L. Baumhardt, R.C. Schwartz
Journal of Contemporary Water Research and Education
December 2017, Vol. 162, Issue 1
doi.org/10.1111/j.1936-704X.2017.03259.x

18-012-J Dryland corn and grain sorghum yield response to available soil water at planting
A.J. Schlegel, F.R. Lamm, Y. Assefa, L.R. Stone
Agronomy Journal
January 2018
Vol. 110, Issue 1, Pg. 236-245
doi.org/10.2134/agronj2017.07.0398

18-095-S 2017 Southwest Research-Extension Center Research Report
B. Gillen and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 5
newprairiepress.org/kaesrr/vol3/iss5/

18-131-J Soil nutrients status after fifty years of tillage and nitrogen fertilization
M.M. Mikha, A.K. Obour, J.D. Holman
Communications in Soil Science and Plant Analysis
July 2018
Vol. 49, Issue 16, Pg. 1953-1975
doi.org/10.1080/00103624.2018.1492599

18-143-J Grain sorghum production functions under different irrigation capacities
A. Araya, I. Kisekka, P.H. Gowda, P.V.V. Prasad
Agricultural Water Management
April 2018
Vol. 203, Pg. 261-271
doi.org/10.1016/j.agwat.2018.03.010

18-191-J Evaluating grain sorghum hybrids for tolerance to iron chlorosis
A. Obour, A. Schlegel, R. Perumal, J. Holman, D. Ruiz Diaz
Journal of Plant Nutrition
January 2019
Vol. 42, Issue 4, Pg. 401-409
doi.org/10.1080/01904167.2018.1549677

18-215-S 2018 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
C.R. Thompson, D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1139
Kansas Agricultural Experiment Station

18-218-S 2017 Kansas Performance Tests with Corn Hybrids, SRP1136
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-228-J Seeding rate and nitrogen application effects on oat forage yield and nutritive value
A.K. Obour, J.D. Holman, A.J. Schlegel
Journal of Plant Nutrition
May 2019
Vol. 42, Issue 13, Pg. 1452-1460
doi.org/10.1080/01904167.2019.1617311

18-235-S 2017 Kansas Performance Test with Grain Sorghum Hybrids, SRP1138
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

18-296-J Yield and water productivity of winter wheat under various irrigation capacities
A. Araya, P.V.V. Prasad, P.H. Gowda, I. Kisekka, A.J. Foster
Journal of the American Water Resources Association
January 2019
Vol. 55, Issue 1, Pg. 24-37
doi.org/10.1111/1752-1688.12721

18-338-J Yield and overall productivity under long-term wheat-based crop rotations: 2000 through 2016
A.J. Schlegel, Y. Assefa, L.A. Haag, C.R. Thompson, L.R. Stone
Agronomy Journal
January 2019
Vol. 111, Issue 1, Pg. 264-274
doi.org/10.2134/agronj2018.03.0171

18-376-S 2017 Kansas Summer Annual Forage Hay and Silage Variety Trial
J. Holman, A. Obour, A. Esser, J. Lingenfelser, S. Maxwell, T. Roberts, G.F. Sassenrath
Kansas Agricultural Experiment Station
Vol. 4, Issue 4
newprairiepress.org/kaesrr/vol4/iss4/1/

18-494-J Modeling irrigation water and nitrogen management of wheat in northern Ethiopia
A. Araya, P.V.V. Prasad, P.H. Gowda, A. Afewerk, B. Abadi, A.J. Foster
Agricultural Water Management
May 2019
Vol. 216, Pg. 264-272
doi.org/10.1016/j.agwat.2019.01.014

18-500-J Economic value and water productivity of major irrigated crops in the Ogallala aquifer region
A. Araya, P.H. Gowda, B. Golden, A.J. Foster, J. Aguilar, R. Currie, I.A. Ciampitti, P.V.V. Prasad
Agriculture Water Management
April 2019, Vol. 214, Pg. 55-63
doi.org/10.1016/j.agwat.2018.11.015

18-519-J Glyphosate- and dicamba-resistant genes are not linked in *Kochia scoparia (Bassia scoparia)*
J. Ou, A.K. Fritz, P.W. Stahlman, R.S. Currie, M. Jugulam
Weed Science
December 2018
Vol. 67, Issue 1, Pg. 16-21
doi.org/10.1017/wsc.2018.78

18-628-S 2018 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 7
newprairiepress.org/kaesrr/vol4/iss7/

18-629-S 2018 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 5
newprairiepress.org/kaesrr/vol4/iss5/

19-016-J Dicamba-resistant kochia (*Bassia scoparia*) in Kansas: characterization and management with fall- or spring-applied preemergence herbicides
V. Kumar, R.P. Engel, R. Currie, P. Jha, P.W. Stahlman, C. Thompson
Weed Technology
April 2019
Vol. 33, Issue 2, Pg. 342-348
doi.org/10.1017/wet.2019.4

19-119-S 2018 Kansas Performance Tests with Corn Hybrids, SRP1145
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-022-S 2018 Kansas Performance Tests with Winter Wheat Varieties, SRP1143
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-032-S 2018 Southwest Research-Extension Center Research Report
B. Gillen and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 8
newprairiepress.org/kaesrr/vol4/iss8/

19-034-J First report of kochia (*Bassia scoparia*) accessions with cross-resistance to dicamba and fluroxypyr in western Kansas
V. Kumar, R. Currie, P. Jha, P.W. Stahlman
Weed Technology
April 2019
Vol. 33, Issue 2, Pg. 335-341
doi.org/10.1017/wet.2018.113

19-055-J Evaluation of dynamic uniformity and application efficiency of mobile drip irrigation
T.E. Oker, I. Kisekka, A. Sheshukov, J. Aguilar, D. Rogers
Irrigation Science
September 2019
Vol. 38, Pg. 17-35
doi.org/10.1007/s00271-019-00648-0

19-100-S 2019 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland
D.E. Peterson, W.H. Fick, R.S. Currie, V. Kumar, J.W. Slocombe
SRP1148
Kansas Agricultural Experiment Station

19-131-A Winter cover crops to sustain soil in the Great Plains
M.B. Kirkham, O.W. Freeman II, K.L. Roozeboom, A.J. Schlegel, and S.A. Staggenborg
Proceedings of the 2018 Annual International Meeting of the American Society for Agricultural and Biological Engineers
2018
doi:10.13031/aim.201801864

19-166-J Nitrogen application effects on forage sorghum production and nitrate concentration
J.D. Holman, A.K. Obour, D.B. Mengel
Journal of Plant Nutrition
September 2019
Vol. 42, No. 20, Pg. 2794-2804
doi.org/10.1080/01904167.2019.1659321

19-191-S 2018 Kansas Performance Tests with Grain Sorghum Hybrids, SRP1147
J. Lingenfelser and multiple co-authors
Kansas Agricultural Experiment Station

19-193-J Registration of 'Surefire' winter canola
M. Stamm, S. Angadi, J. Damicone, S. Dooley, J. Holman, J. Johnson, J. Lofton, D. Santra
Journal of Plant Registrations
September 2019
Vol. 13, No. 3, Pg. 316-319
doi:10.3198/jpr2019.02.0007crc

19-254-J Productivity and profitability of four crop rotations under limited irrigation
A.J. Schlegel, Y. Assefa, D. O'Brien
Transactions of the ASABE
2020, Vol. 36, Issue 1, Pg. 1-9
doi.org/10.13031/aea.13416

19-317-S 2018 Forage Report
J. Holman, A. Obour, A. Esser, J. Lingenfelser, T. Roberts
Kansas Agricultural Experiment Station
Vol. 5, Issue 3
newprairiepress.org/kaesrr/vol5/iss3/

19-318-S 2019 Kansas Fertilizer Research Report
D.A. Ruiz Diaz and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 4
newprairiepress.org/kaesrr/vol5/iss4/

19-319-S 2019 Kansas Field Research Report
E.A. Adee and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 5, Issue 6
newprairiepress.org/kaesrr/vol5/iss6/

19-325-J Increased absorption and translocation contribute to improved efficacy of dicamba to control early growth stage Palmer amaranth (*Amaranthus palmeri*)
I. Cuvaca, R. Currie, K. Roozeboom, J. Fry, M. Jugulam
Weed Science
January 2020, Vol. 68, Issue 1
doi.org/10.1017/wsc.2019.67

Statistics

18-123-J Effects of dietary energy level and intake of corn by-product based diets on newly received growing cattle:. Antibody production, acute phase protein response, stress, and immunocompetency of healthy and morbid animals
T.J. Spore, S.P. Montgomery, E.C. Titgemeyer, G.A. Hanzlicek, C.I. Vahl, T.G. Nagaraja, K.T. Cavalli, W.R. Hollenbeck, R.A. Wahl, D.A. Blasi
Journal of Animal Science
April 2018
Vol. 96, Issue 4, Pg. 1474-1438
doi.org/10.1093/jas/sky035

18-196-S 2017 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 3, Issue 7
https://newprairiepress.org/kaesrr/vol3/iss7/

18-204-J Forage mass production, forage nutrient value, and cost comparisons of three-way cover crop mixes
J.K. Farney, G.F. Sassenrath, C.J. Davis, D. Presley
Crops, Forage, and Turfgrass Management
August 2018, Vol. 4, Issue 1
doi.org/10.2134/cftm2017.11.0081

18-262-J Storage losses from large round bales of alfalfa, tall fescue, and big bluestem hay
L. Lomas, J. Slocombe, G. Milliken
Applied Engineering in Agriculture
January 2018
Vol. 32, Issue 2, Pg. 445-454
doi: 10.13031/aea.12681

18-280-J Effects of tylosin administration routes on the prevalence of antimicrobial resistance among fecal enterococci of finishing swine
F. Wu, M.D. Tokach, J.M. DeRouchey, S.S. Dritz, J.C. Woodworth, R.D. Goodband, K. Chitakasempornkul, N.M. Bello, K. Capps, S. Remfry, H.M. Scott, T.G. Nagaraja, M.D. Apley R.G. Amachawadi
Foodborne Pathogens and Disease
May 2019, Vol. 16, Issue 5
doi.org/10.1089/fpd.2018.2551

18-290-J Effects of chlortetracycline alone or in combination with direct fed microbials on nursery pig growth performance and antimicrobial resistance of fecal *Escherichia coli*
H.E. Williams, M.D. Tokach, S.S. Dritz, J.C. Woodworth, J.M. DeRouchey, T.G. Nagaraja, R.D. Goodband, J.R. Pluske, K. Chitakasempornkul, N.M. Bello, and R.G. Amachawadi
Journal of Animal Science
October 2018
Vol. 96, Issue 12, Pg. 5166-5178
doi.org/10.1093/jas/sky370

18-310-S 2018 Cattlemen's Day Research Report
E.A. Boyle and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 1
newprairiepress.org/kaesrr/vol4/iss1/

18-518-J Technical note: Assessment of sampling technique from feeders for copper, zinc, calcium, and phosphorous analysis
A.M. Jones, J.C. Woodworth, C.I. Vahl, M.D. Tokach, R.D. Goodband, S.S. Dritz
Journal of Animal Science
August 2018
Vol. 96, Issue 11, Pg. 4611-4617
doi.org/10.1093/jas/sky347

19-002-J Complementary feeding of sorghum-based and corn-based fortified blended foods results in similar iron, vitamin A and anthropometric outcomes in the MFFAPP Tanzania efficacy study
N.M. Delimont, C.I. Vahl, R. Kayanda, W. Msuya, M. Mulford, P. Alberghine, G. Praygod, J. Mngara, S. Alavi, B.L. Lindshield
Current Developments in Nutrition
June 2019, Vol. 3, Issue 6
doi.org/10.1093/cdn/nzz027

19-017-J A retrospective analysis of seasonal growth patterns of nursery and finishing pigs in commercial production
F. Wu, J. Liao, M.D. Tokach, S.S. Dritz, J.C. Woodworth, R.D. Goodband, J.M. DeRouchey, C.I. Vahl, H.I. Calderón-Cartagena, D.L. Van De Stroet
Journal of Swine Health and Production
2019, Vol. 27, Issue 1, Pg. 19-33
www.aasv.org/shap/issues/v27n1/v27n1p19.pdf

19-019-J Effects of a high-energy programmed feeding protocol on nutrient digestibility, health, and performance of newly received growing beef cattle
T.J. Spore, S.P. Montgomery, E.C. Titgemeyer, G.A. Hanzlicek, C.I. Vahl, T.G. Nagaraja, K.T. Cavalli, W.R. Hollenbeck, R.A. Wahl, D.A. Blasi
Applied Animal Science
August 2019
Vol. 35, Issue 4, Pg. 397-407
doi.org/10.15232/aas.2019-01853

19-031-J Landscape effects on Hessian fly, *Mayetiola destructor* (Diptera: Cecidomyiidae), distribution within six Kansas commercial wheat fields
R.B. Schmid, T. Hefley, R. Lollato, B.P. McCornack
Agriculture, Ecosystems, & Environment
March 2019, Vol. 274, Pg. 52-61
doi.org/10.1016/j.agee.2018.12.018

19-033-J Spatio-temporal distribution and environmental drivers of barley yellow dwarf virus and vector abundance in Kansas
L.S. Enders, T.J. Hefley, J.J. Girvin, R.J. Whitworth, C.M. Smith
Phytopathology
October 2018, Vol. 108, No. 10
doi.org/10.1094/PHYTO-10-17-0340-R

19-091-S 2018 Swine Day Research Report
R. Goodband and multiple co-authors
Kansas Agricultural Experiment Station
Vol. 4, Issue 9
newprairiepress.org/kaesrr/vol4/iss9/

19-099-J The effects of maternal dietary supplementation of cholecalciferol (vitamin D_3) and 25(OH)D_3 on sow and progeny performance
M.T. Thayer, J.L. Nelssen, A.J. Langemeier, J.M. Morton, J.M. Gonzalez, S.R. Kruger, Z. Ou, A.J. Makowski, J.R. Bergstrom
Translational Animal Science
March 2019
Vol. 3, Issue 2, Pg. 692-708
doi.org/10.1093/tas/txz029

19-227-J Pork carcass extended hanging time effect on the microbiological characteristics of vacuum packaged blade steak
F. Najar, E. Boyle, T. Houser, R. Phebus, C. Vahl, J. Wolf, J. Gonzalez, T. O'Quinn, D. Vega
Meat and Muscle Biology
April 2019, Vol. 2, Issue 2
doi:10.221751/rmc2018.085

19-231-J Smoked sugar improves flavor stability of frozen, sliced, food service bacon
A. Hobson, J. Gonzalez, T. O'Quinn, E.A. Boyle, J.S. Smith, F. Karim, C. Vahl, R. Johnson, T. Houser
Meat and Muscle Biology
October 2019
Vol. 3, No. 1, Pg. 356-366
doi:10.22175/mmb2019.06.0020

19-282-J Effects of standardized total tract digestible phosphorus on growth performance of 11- to 23-kg pigs fed diets with or without phytase
C.M. Vier, S.S. Dritz, F. Wu, M.D. Tokach, J.M. DeRouchey, R.D. Goodband, M.A.D. Gonçalves, U.A.D. Orlando, J.C. Woodworth
Journal of Animal Science
October 2019
Vol. 97, Issue 10, Pg. 4032-4040
doi.org/10.1093/jas/skz255

19-306-J Digestibility of diets containing calcium salts of fatty acids or soybean oil in horses
L.K. Fehlberg, J.M. Lattimer, C.I. Vahl, J.S. Drouillard, T.L. Douthit
Translation Animal Science
January 2020, Vol. 4 Issue 1
doi.org/10.1093/tas/txaa001

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