

CURRICULUM VITAE
TIMOTHY J. HERRMAN
PROFESSOR, STATE CHEMIST AND DIRECTOR

PERSONAL CONTACT

Phone: (979) 219-8611

Email: timherrmanphd@gmail.com

OFFICE CONTACT

Phone: (979) 845-1121

Email: tjh@otsc.tamu.edu

State Chemist and Director, Professor

Dr. Herrman joined Texas A&M in 2004 and serves as State Chemist and Director of the Office of the Texas State Chemistry (OTSC) where he directs the regulatory oversight of 5000 firms located in Texas, the United States and abroad that manufacture and distribute 25 million tons of feed and fertilizer in the Texas market each year valued at \$10 billion. Dr. Herrman also directs the agency's ISO 17025:2017 accredited laboratory that analyzes regulatory samples for the Office of the Texas State Chemist, the United States Food and Drug Administration, and the United States Department of Agriculture and is part of the national food defense infrastructure.

Research and Educational Outreach Interests

As a professor in the Department of Soil and Crop Sciences and member of the Interdisciplinary Faculty of Toxicology and Food Science Department's graduate faculty, Dr. Herrman directs a graduate education and outreach program and conducts research involving regulatory science. He is the founding editor and publisher of the Journal of Regulatory Science hosted by the Texas Digital Library. Dr. Herrman has authored/co-authored 75 journal articles and 75 proceedings & Extension bulletins. He has promulgated 10 rules and 56 regulatory policy guidance documents. Dr. Herrman is the lead PI on grants receiving over \$22 million extramural support.

During the past 7 years, Dr. Herrman worked alongside public and private sector stakeholders in eastern and southern Africa to manage aflatoxin risk. The program "Aflatoxin Proficiency Testing and Control In Africa" (APTECA) has qualified over 300 analysts from 6 countries to accurately test for aflatoxin, assisted laboratories achieve ISO 17025 accreditation, helped Kenya maize millers develop and implement aflatoxin food safety plans, evaluated small holder farmers' cultural practices to mitigate aflatoxin, and facilitated national and county authorities draft policy and regulations to manage aflatoxin risk. Under his direction, OTSC delivers an ISO 17043 accredited aflatoxin proficiency testing program that reaches 292 laboratories in 62 countries that serve a population of 4 billion in developing countries.

Past Leadership

Previously, Dr. Herrman was a professor in the Kansas State University Department of Grain Science and Industry from 1992-2004 where he led the Extension program, graduate faculty, and wheat quality lab. He worked for Anheuser-Busch Inc. coordinating potato and barley procurement and storage operations from 1986-1990 in the Western United States. He travelled extensively throughout Asia on behalf of the United States Grains Council and American Soybean Association where he introduced a quality systems approach to manufacturing feed.

ACADEMIC CREDENTIALS

- Ph.D. Plant Sciences, University of Idaho, Moscow, 1992: Dissertation Title: Interrelationships of chipping potato quality components during the growing season and long-term storage.
- M.S. Forest Resources, University of Idaho, Moscow, 1984: non-thesis
- M.S. Plant Sciences (plant pathology), University of Idaho, Moscow, 1983: Thesis Title: Measurement and control of foot rot in winter wheat as influenced by cultural practices.
- Cert. Multnomah University. Portland OR. 1980. Graduate Certificate.
- B.S. Agronomy, Washington State University, Pullman, 1979: Crop Protection option.

EXECUTIVE EXPERIENCE

2004 - Present. State Chemist and Director: Office of the Texas State Chemist-Texas A&M AgriLife Research

Key Responsibilities:

- Direct the Texas Feed and Fertilizer Control Service (FFCS) of OTSC that serves 29 million Texans and 500 million animals and farmland through the regulation of feed and fertilizer to produce safe and abundant plant and animal protein products.
- Direct the Agricultural Analytical Service (AAS) of OTSC, an ISO 17025:2017 accredited laboratory that provides analytical support to FFCS, FDA, and USDA.
- Responsible for employees, budget (\$14 million), and agency infrastructure,
- Promulgate feed and fertilizer rules and approve new ingredients, and
- Respond to Texas legislature requests involving feed and fertilizer regulation.

Key Accomplishments:

- Improved regulatory compliance (40% reduction in misbranded and adulterated products) and agency performance (60% reduction in analytical turnaround time).
- Lab accreditation under ISO 17025, 17043, and 17034 standards.
- Responsible for construction of new OTSC headquarters.
- Shared governance (co-regulation) with the USDA Risk Management Agency and grain elevators improved mycotoxin risk management and market liquidity.
- Added food defense capability including detection and confirmation of select agents and radionuclides.
- Perform emergency response including analytical surge capacity and market recovery following natural disaster and bioterrorism incidents.

ACADEMIC EXPERIENCE

2004 - Present. Professor: Department of Soil and Crop Sciences, Texas A&M University

Key Responsibilities

- Director of the Regulatory Science in Food Systems graduate certificate program in Soil and Crop Sciences and a member of the Interdisciplinary Faculty of Toxicology and the graduate faculty in the Department of Food Science and Technology.

Key Accomplishments

- Directed development and delivery of an online graduate certificate program in Regulatory Science involving faculty from six academic units (<http://regsci.tamu.edu/>).
- Founding editor and publisher of the Journal of Regulatory Science delivered through the Texas Digital Library.

2004 Kansas State University
Professor and State Extension Leader, Department of Grain Science and Industry,

Key Responsibilities

- Led the Extension outreach program, graduate faculty, and undergraduate revitalization taskforce, directed the wheat quality laboratory, and conducted research and Extension in cereal chemistry and feed manufacturing.

Key Accomplishments

- Undergraduate enrollment increased 53% within two years of the revitalization plan implementation.
- Reduced turn-around time in the wheat quality lab that supported the winter wheat breeding program, eliminating one year in the wheat breeding selection time.
- Created a Hazard Analysis Critical Control Point (HACCP) auditing system implemented by the American Feed Industry Association's (AFIA) Facility Certification Institute.

1998-2004 Kansas State University

Associate Professor and State Extension Leader, Dept. of Grain Science and Industry,

Key Responsibilities

- Led the Extension outreach program and undergraduate program revitalization taskforce, conducted research and Extension in cereal chemistry and feed manufacturing.

Key Accomplishments

- Undergraduate revitalization taskforce developed a strategic plan to increase undergraduate enrollment.
- Led a national feed industry HACCP education program serving individuals from firms manufacturing approximately 70% of US feed from 2003-present (<http://feedhaccp.org>).
- Offered a Feed Industry Profitability course in KS, NE, IA, MN, and WI.

1992-1998 Kansas State University

Assistant Professor and State Extension Leader, Department of Grain Science and Industry,

Key Responsibilities

- Led the Extension outreach program and conducted research and Extension in cereal chemistry and feed manufacturing.

Key Accomplishments

- Increased enrollment in short courses on wheat quality and feed manufacturing.
- Published the nation's most current and extensive animal feed manufacturing Extension material.
- Successfully demonstrated on-farm implementation of integrated pest management approach to manage stored grain.

1990-1992 University of Idaho

Graduate Research Assistant, Department of Plant, Soil and Entomological Science,

- Key Accomplishment: completed PhD dissertation resulting in 3 peer-reviewed journal articles.

1984-1986 University of Idaho

Extension Agriculture Agent

Key Responsibilities

- Served as agriculture extension agent in Fremont Country, Idaho with responsibilities for crops, livestock and 4-H.

Key Accomplishments

- Introduced new education activities in dairy and potatoes, evaluated a seed fungicide, and introduced lentils as an alternate crop.

1981-1984 University of Idaho

Graduate Research Assistant, Department of Plant, Soil & Entomological Science,

INDUSTRY EXPERIENCE

1986-1990 Anheuser Busch Companies, Inc.

Coordinator of Field Operations, Western Region

Key Responsibilities

- Establish a potato procurement and storage program for Russet Burbank potatoes in Idaho and chipping potato procurement program in the eleven western states for Eagle Snacks, Inc.
- Coordinate barley procurement and establish an expanded barley procurement in Idaho.

Key Accomplishments

- Implemented a procurement and storage system that delayed physiological aging of Russet Burbank potatoes and maintained processing quality for 12 months.
- Built a chipping-potato procurement program in the 11 western states that resulted in Eagle Snacks Inc. (an Anheuser Busch Company) becoming the second largest snack food company by 1990.
- Appointed by August Busch III to expand the barley procurement program in Idaho (1988) which was successfully implemented in the Magic Valley (90% return on contracts) in 1989.

1980 Palouse Producers Coop.

Seasonal employee building grain bins (summer) and fertilizer delivery (fall).

1979 Harold Stuckel (Washington wheat grower and cattle rancher)

Hired hand during summer.

INTERNATIONAL EXPERIENCE

2014 – Present: Aflatoxin Proficiency Testing and Control in Africa (APTECA)

- Improved availability of aflatoxin safe food for about 10 million Kenyans through introduction of a quality systems approach to measure and manage aflatoxin risk by industry, producers, and public health agencies patterned after the OTSC shared governance model (<http://apteca.tamu.edu/>).
- Established ISO 17025 accredited laboratories for measuring aflatoxin on the International Livestock Research Institution (ILRI) and University of Nairobi Chiromo campuses in Nairobi Kenya.
- Led high-level policy meetings involving national and county elected officials, agency directors, and industry resulting in a regulatory roadmap, strategic plan, and model bill leading to improved aflatoxin risk management and laboratory construction.
- Trained and qualified 332 analysts to accurately measure aflatoxin from six countries.
- Built a global laboratory network through an aflatoxin proficiency testing program (<http://pt.tamu.edu/>) in 62 countries involving 291 laboratories that serve over 4 billion people in developing countries.

2007-Present: Global | Continuing Education and Proficiency Testing

- Delivered continuing education to individuals from 75 countries at a distance and through face-to-face short courses in food systems since 2007 and lab quality systems since 2013 in collaboration with the United Nations Food and Agriculture Organization.

1996-2006: Asia | Feed Manufacturing

- Introduced a quality systems approach to manufacturing feed throughout Asia in collaboration with the U.S. Grains Council and American Soybean Association.

PROFESSIONAL CREDENTIALS – Accredited agent commissioned by the Food and Drug Administration, International HACCP Alliance lead instructor, Food Safety Preventive Control Alliance lead instructor (food and feed).

GRADUATE TEACHING

SCSC 629 Laboratory Quality Systems, (3.3 Lecture Hours); co-instructor 10 offerings, 81 students

SCSC 634 Regulatory Science Principles (3.3); 8 offerings, 56 students

SCSC 635 Comparative Global Standards in Food Systems, co-instructor (3.3); 8 offerings, 71 students

SCSC 636 Regulatory Science Methodology in Food Systems (3.3); 3 offerings, 17 students

SCSC 638 Hazard Analysis and Preventive Controls for Animal Food (3.3)

STUDENTS

Current: Megan Rooney (PhD), Ashli Brown (PhD), Mary Sasser (PhD), Kelly Rathbun (MS) | Past: Doctoral; KM Lee, | 5 Master of Science; Vamshidar Puppala, Scott Baker, Adam Heishman, Tod Bramble, Benjamin Arizmendi | 12 Graduate Certificate; Mike Lennox, Paulette Bunyapanasarn, Andrew Buch, Ben Jones, Susie Dai, Karen Leigh Dawes, Diana Correa, Richard Commeau, Pamela Stafford, Timothy Broderick, Yvette Mendoza, Megan Rooney | 3 Master Degree Professional Program graduate research assistants; Karen Fischer, Bree Vculek and Kelsey Lewis | Undergraduate research assistants; Danielle Yarbrough, Mena Kosman, Daniel Garza, Shaun Willars.

SHORT COURSES, WORKSHOPS, CONTINUING EDUCATION, CONSULTATIONS

Laboratory Quality Systems: online in collaboration with FAO: 2013-present (176 participants)

Aflatoxin Testing and Qualification Workshop:

Kenya in 2018 (74 participants in collaboration with the University of Nairobi and World Food Program), 2017 (59 participants in collaboration with the Kenya Agricultural & Livestock Research Organization) and 2015 (48 participants from 6 countries during two offerings in collaboration with the Common Market for Eastern and Southern Africa);

Malawi in 2017 (43 participants in two offerings in collaboration with the Malawi Grain Traders Association);

Rwanda in 2016 (16 participants);

Uganda in 2016 (22 participants);

Tanzania in 2016 (38 participants in two offering) in collaboration with the Tanzania Bureau of Standards.

Feed Industry HACCP: face-to-face, 2003-present: online, 2007-present (674 participants)

Auditor Training, Feed Industry HACCP: 2004-2014. (4 sessions, 34 participants)

Feed Industry Profitability: 2003-2009.

Kansas State University Feed Manufacturing Short Course: 1994, 1996, 1998, 2000, 2002, 2004.

Wheat Quality as it Relates to Milling and Baking Properties: 1992-2004.

US Grains Council in China, Colombia, Indonesia, Vietnam, Malaysia, Morocco, 1996-2009 Taught and consulted on feed quality assurance and continuous improvement techniques.

American Soybean Association in Malaysia, Philippines, Thailand, Indonesia, China, Japan, Egypt, Greece and Cyprus, 1997-2006. Taught and consulted on feed quality assurance and HACCP.

SERVICE

Mass Spec Steering Committee: 2016-2017. Office of the Vice President for Research, Texas A&M University.

Journal of Regulatory Science: Founding Editor 2013-2014 and Publisher, 2013-present,

Codex Animal Feed Taskforce: 2013-2014. Delegate, the Association of American Feed Control Officials (AAFCO) during the development of two standards on risk assessment and hazard prioritization

American Feed Industry Association: 2003-2004. Chair, Quality Council – led development of the auditing system and hazard guide used by the association's Safe Feed/Safe Food program.

National Research Council of the National Academies: 2003-2005, committee on assessing the nation's framework for addressing animal diseases and authored: *Animal Health at the Crossroads, preventing, detecting, and diagnosing animal diseases*.

NC-1015 *Managing Karnal Bunt of Wheat*; 2004. Authored the five-year multistate research plan-of-work.

NC-213 *Marketing and Delivery of Quality Grains and Bioprocess Coproducts*: 1995-present, Station Representative, Texas Agricultural Experiment Station (2014-present) and Kansas Agricultural Experiment Station (1996-2004), served as chair in 1998 and objective co-chair from 1995-2004.

AWARDS

Food and Drug Administration Commissioner's Special Citation Award, as a member of the Hurricanes Harvey, Irma, and Maria Agency Response Group, June 15, 2018.

Association of American Feed Control Officials Distinguished Service Award, 2011.

Texas Ag. Industries Association Special Recognition Award, 2008.

Andersons Cereals and Oilseeds Award of Excellence, 2008.

USDA Group Award, Hard White Wheat Commercialization Team, 2002.

Kansas Excellence in Extension Award, Kansas Association of Wheat Growers, 1998.

Outstanding Senior in Agronomy, Washington State University, 1979.

GRANTS AND CONTRACTS

On-farm Feed Manufacturing Quality Assurance. 1993. \$30,000. Tim Herrman. USDA, CSREES Food Safety and Quality Initiative.

Mixing and Separation Properties of Elliptical Pellets Containing Tylosin and Sulfamethazine in Swine Feed. 1993. \$14,800. Keith Behnke and Tim Herrman. ELANCO.

Integrated Pest Management for Quality Maintenance of Stored Grain. 1994. \$52,860. Tim Herrman and Carl Reed. USDA, CSREES Integrated Pest Management Initiative.

Quality-Oriented Marketing of Hard Winter Wheat. 1996. \$19,400. Kyle Stiegert, Tim Herrman, Susan Sun. USDA, NRI Competitive Grant Program, Markets and Trade Division.

Quality-Oriented Marketing of Hard Winter Wheat. 1996. \$182,900. Tim Herrman, Kyle Stiegert, Susan Sun. USDA, Grain Inspection, Packers, and Stockyard Administration, Federal Grain Inspection Service.

Cereal and Oilseed Center. 1997. \$25,000. Lowell Nault, Tim Herrman, and Don Koeltzow. USDA Fund for Rural America.

Extending Pelletized Feed Shelf Life In Southeast Asia. 1997. \$79,709. Tim Herrman. USDA, Foreign Agricultural Service, Emerging Markets.

Quality-Based Marketing of Wheat: Pilot-Scale Evaluation. 1998. \$20,000. Tim Herrman, Mike Boland, Dale Eustace, and Rolando Flores. Kansas Wheat Commission.

Market Research in Value-Enhanced Corn. 1998. \$37,920. Mike Boland and Tim Herrman. Kansas Corn Commission.

Impact of Storage on Wheat Milling Performance. 1999. \$30,000. Tim Herrman, Tod Bramble, and Jeff Gwartz. The Ohio State University, Anderson Grant.

Pre-harvest Prediction of Wheat End-Use Quality. 2000. \$30,000. Tim Herrman. Grain Industry Alliance.

Value-Enhanced Marketing of Kansas Hard Winter Wheat to Mexico. 2000. \$44,000. Tim Herrman. Kansas Dept. of Commerce and Housing, Agricultural Product Development Division.

Grain facility system analysis to improve adoption of value-enhanced grain handling and marketing in the U.S. 2001-2002. \$100,000. Dirk Maier and Tim Herrman. The Ohio State University, Anderson Grant.

Dry corn milling quality assessment for value-enhanced marketing. 2001-2. \$35,000. Tim Herrman, Kansas Corn Commission.

Development and implementation of a voluntary HACCP program for the commercial feed industry. 2002-2006. \$534,153. Tim Herrman, Subramanyam Bhadriraju, Michael Langemeier. USDA, CSREES Food Safety Initiative.

Characterization of mold respiration and mold growth in feed as affected by mold inhibitors. 2002. \$167,542. Tim Herrman, Carl Reed, Keith Behnke. Cargill Feed Applications.

Evaluating Food Grade Corn Processing Performance. 2003. \$30,000. Tim Herrman. Kansas Corn Commission.

Factors governing the suitability of sorghum and maize for wet milling, dry milling, and alkaline processing. 2003-2006. \$150,000. Tim Herrman, Dave Jackson, and Scott Bean. Anderson Endowment, Ohio State University.

Food-grade maize hybrid evaluation. 2003. \$53,100. Tim Herrman. AgraMarke Inc.

Suitability of Maize and Sorghum for Dry Milling and Extrusion Processing. 2003. \$33,000. Tim Herrman, Sajid Alavi, and K.M. Lee. Midwest Advanced Food Manufacturing Alliance, USDA.

Feasibility study on developing grain tracing technology. 2003. \$7,166. Tim Herrman. Kansas Crop Improvement Association.

Global Tracing and Recall System for U.S. Commodity Grains: Proof of Concept. 2004. \$500,000. Tim Herrman, Michael Langemeier, Mark Schrock. USDA NRI Integrated Program: Biosecurity.

Protein/hardness screening of early progeny wheat. 2004. \$18,415. Tim Herrman. Kansas Wheat Commission.

Quality evaluation from KAES wheat breeding programs. 2004. \$79,050. Tim Herrman, Kansas Wheat Commission.

Texas State Chemist BSE Prevention Program. 2005-2009. \$1,248,574. Tim Herrman, Department of Health and Human Service, Food and Drug Administration.

Texas State Chemist Microbiological Validation Study for FSIS FERN. 2007-09. \$568,000. Tim Herrman, Margaret Hardin and K.M. Lee. Food Safety Inspection Service, USDA.

Texas State Chemist BSE and Medicate GMP Inspections. 2009-2013. \$590,626. Tim Herrman. DHHS/FDA/OAGS/DSCI.

Public Safety Interoperable Communications Program. 2009. \$20,000. Tim Herrman, Governor's Division of Emergency Management.

Texas All Hazards Rapid Response Team. 2010-2018. \$742,463. Tim Herrman. Subcontract with the Texas Department of State Health Services, Funding entity is the Department of Health and Human Service, Food and Drug Administration

Texas State Chemist Validation Study for FSIS FERN. 2010-15. \$827,670. Tim Herrman. Food Safety Inspection Service, USDA.

Texas Feed Safety and BSE Prevention Program. 2010-2015. \$1,150,000. Tim Herrman, Department of Health and Human Service, Food and Drug Administration.

Application of Multivariate and Binomial Probability Statistics in a Risk-Based Approach to Improve the Effectiveness of Inspections and Enforcement. 2012-5. \$300,000. Tim Herrman and KM Lee. Department of Health and Human Service, Food and Drug Administration.

Texas State Chemist Recall Program: Capacity and Capability Development. 2012-5. \$300,000. Tim Herrman. Department of Health and Human Service, Food and Drug Administration.

Marketing Food Safety in Kenya. 2013. \$100,000. Vivian Hoffmann, Tim Herrman, Christine Moser, Romina Ordonez. GCFSI, Michigan State University.

Texas State Chemist BSE and Medicate GMP Risk Management. 2014-2018. \$1,234,000. Tim Herrman. Department of Health and Human Service, Food and Drug Administration.

Texas State Chemist FSIS FERN. 2015-2020. \$440,000. Tim Herrman. K.M. Lee and Wei Li. USDA, FSIS.

Texas State Chemist Animal Feed Regulatory Program Standards Implementation and ISO17025 Accreditation Roadmap. 2015-2020. \$2,362,000. Tim Herrman. Department of Health and Human Service, Food and Drug Administration.

Medicated Feed Manufacturing Compliance. 2018-2022. \$1,025,534. Tim Herrman and Mary Sasser. Department of Health and Human Service, Food and Drug Administration.

Managing Fumonisin Risk in the Corn Value Chain. 2020-2022. \$50,000. Tim Herrman and Ashli Brown. NC-213 Ohio State University.

SAFE-phone: Smartphone based Aflatoxin and Fumonisin Evaluation in Food Crops. 2020-2023. \$30,000. Tim Herrman and Wei Li. Subcontract Cornell University, prime contract National Science Foundation.

Texas Food Defense and Animal Food Product Testing for Microbiological, Chemical and Radiological Hazards, Genome Sequencing, and Special Project Tracks. 2020-2025. Tim Herrman \$5,250,000. Department of Health and Human Services, Food and Drug Administration.

Office of the Texas State Chemist Food Emergency Response Network. 2020-2025. \$1,150,000. Tim Herrman, Linda Menefee, Wei Li and KM Lee. Food Safety Inspection Service, United States Department of Agriculture.

Texas Animal Feed Regulatory Program Standards and Preventive Controls Program. 2020-2025. Tim Herrman. \$2,999,999. Department of Health and Human Services, Food and Drug Administration.

PEER-REVIEWED JOURNAL PUBLICATIONS

Wiese, M. V., T. Herrman, and M. Grube. 1984. The impact of diseases on wheat yields in Idaho's Kootenai Valley in 1981. *Plant Disease* 68:421-424.

Herrman, T. and M. V. Wiese. 1985. The influence of cultural practices on the incidence of foot rot in winter wheat. *Plant Disease* 69:948-950.

Herrman, T. J., R. L. Forster, and J. M. Martin. 1990. Imazalil seed treatment reduces common root rot and increases yield of barley under commercial conditions. *Plant Disease* 74:246-247.

Love, S., T. Herrman, A. Thompson, and T. Baker. 1994. Effect and interaction of crop management factors on the glycoalkaloid content of potato tubers. *European Potato J.* 37:77-85.

Herrman, T.J., B. Shafii, S.L. Love, and R.B. Dwelle. 1995. Influence of crop management factors on chipping potato maturity and storage processing performance. *J. of the Sci. of Food and Ag.* 68:51-58.

Herrman, T.J., K.C. Behnke, and T.M. Loughin. 1995. Mixing and cleanout properties of sulfamethazine and carbadox in swine feed. *Swine Health and Production* 3(5):195-198.

Herrman, T.J., S.L. Love, B. Shafii, and R. B. Dwelle. 1996. Chipping performance of three processing potato cultivars during long-term storage at two temperature regimes. *Am. Potato J.* 73:411-425.

Herrman, T.J., R.L. Bowden, T.M. Loughin, and R.K. Bequette. 1996. Quality response to the control of leaf rust in Karl hard red winter wheat. *Cereal Chem.* 73(2):235-238.

Herrman, T.J., J. Harner, S. Baker, and M. Langemeier. 1997. Time and cost analysis of on-farm portable feed manufacturing. *Applied Engineering in Ag.* 13(3):421-425.

Herrman, T.J., T.M. Loughin, and M.D. Schrock. 1997. Combine loss and grain cleanliness in Kansas hard winter wheat. *Cereal Foods World* 42(11):869-873.

Puppala, V., T.J. Herrman, W.W. Bockus, and T.M. Loughin. 1998. Quality response of twelve HRW wheat cultivars to foliar disease across four locations in central Kansas. *Cereal Chem.* 75(1):94-99.

- Martin, C., T.J. Herrman, T. Loughin, and S. Oentong. 1998. Micropycnometer measurement of single kernel density of healthy, sprouted, and scab-damaged wheat. *Cereal Chem.* 75(2):177-180.
- Baker, S., Herrman, T.J., and T. Loughin. 1999. Segregating hard red winter wheat into dough factor groups using single kernel measurements and whole grain protein analysis. *Cereal Chem.* 76(6):884-889.
- Baker, S., Herrman, T.J., and T. Loughin. 1999. Use of regression and discriminant analyses to develop a quality classification system for hard red winter wheat. *Cereal Chem.* 76(6):890-893.
- Herrman, T.J., S. Baker, and F. Fairchild. 2001. Characterization of receiving systems and operating performance of Kansas grain elevators during wheat harvest. *Applied Engineering in Ag.* 17(1):77-82.
- Herrman, T.J., M. Boland, K. Agrawala, and S. Baker. 2002. Use of a simulation model to evaluate wheat segregation strategies for country elevators. *Applied Engineering in Ag.* 18(1):105-112.
- Bramble, T., T.J. Herrman, T. Loughin, and F. Dowell. 2002. Single kernel protein variance structure in commercial fields in western Kansas. *Crop Science*, 42:1488-1492.
- Gilpin, A., T.J. Herrman, K.C. Behnke, and F.J. Fairchild. 2002. Feed moisture, retention time, and steam as quality and energy utilization determinants in the pelleting process. *Applied Engineering in Ag.* 18(3):331-338.
- Herrman, T.J. and T.M. Loughin. 2003. Processing and shelf-life performance of feed manufactured from high moisture corn. *Transactions ASAE* 46(3):697-703.
- Yan, J., T.J. Herrman, T.M. Loughin, A. Featherstone, and F.D. Yaun. 2003. Nutritional and economic implications of protein variance structure and the application of statistical process control in the Chinese feed industry. *Cereal Chem.* 80(5):623-626.
- Eberle, W.M., J.P. Shroyer, and T.J. Herrman. 2004. Constraints to adoption of hard white wheat in Western Kansas. *J. Natural Resource of Life Sci. Ed. J. Nat Resour. Life Sci. Educ.* 33:1-6.
- Lee, K.M., J.P. Shroyer, T.J. Herrman, and J.E. Lingenfelter. 2005. Blending Hard White Wheat to Improve Grain Yield and End-Use Performances. *Crop Science.* 46:1124-1129
- Lee, K.M., T.J. Herrman, J.E. Lingenfelter, and D. Jackson. 2005. Classification and prediction of hardness-associated properties using multivariate statistical analysis. *J. Cereal Sci.* 41(2005):85-93.
- Bramble, T., F. Dowell, and T.J. Herrman. 2006. Single-kernel near-infrared protein prediction and the role of kernel weight. *Applied Engineering in Ag.* 22(6):945-949.
- Ingles, M.E.A., M.E. Casada, R.G. Maghirang, T.J. Herrman, and J.P. Harner III. 2006. Effects of grain-receiving configuration on commingling in a country elevator. *Applied Engineering.* 22(5):713-721
- Lee, K.M., S.R. Bean, S. Alavi, T.J. Herrman, R.D. Waniska. 2006. Physical and biochemical properties of maize hardness and extrudates of selected hybrids. *J. Food and Ag. Science.* 54:4260-4269.
- Lee, K.M., T.J. Herrman, S.R. Bean, D. Jackson, and J.E. Lingenfelter. 2006. Classification of Dry-Milled Maize Grit Yield Groups using Quadratic Discriminant Analysis and Decision Tree Algorithm. *Cereal Chem.* 87: 152-161.

Hirai, Y., M.D. Schrock, D.L. Oard, T.J. Herrman. 2006. Delivery system of tracing caplets for wheat grain traceability. *Applied Engineering in Ag.* 22(5):747-750.

Herrman, T., M. Langemeier, and M. Frederking. 2007. Development and implementation of HACCP plans by US feed manufacturers. *J. Food Prot.* 70(12):2819-2823.

Ioerger, B., S.R.Bean, M.R. Tuinstra, J.E. Pedersen, J. Erpelding, K.M. Lee, Herrman. 2007. Characterization of polymeric proteins from vitreous and flourey sorghum endosperm. *J. Agric. Food Chem.* 55, 10232-10239.

Lee, K.M., T.J. Herrman Lloyd Rooney, David S Jackson, Scott R. Bean, Jane Lingenfelter, Kent D. Rausch, John McKinney, Chris Iiams, Charles R. Hurburgh, Jr., Lawrence A Johnson, and Steven R. Fox 2007. Corroborative Study on Maize Quality, Dry-Milling and Wet-Milling Properties of Selected Maize Hybrids. *J. Food and Ag. Science.* 55:10751-10763.

Lee, K.M., J.L. McReynolds, C. Fuller, B.L. Jones, T. J. Herrman, and M. Runyon. 2008. Investigation and characterization of the feed rodent industry in Texas following a multi-state *Salmonella* Typhimurium outbreak associated with frozen vacuum packed rodents. *Zoonoses and Public Health.* 55(2008)488-496.

Larson, Z., B. Subramanyam, and T. Herrman. 2008. Stored-product insects associated with eight feed mills in the Midwestern United States. *Stored-Product Entomology* 101(3)998-1005.

Larson, Z., B. Subramanyam and T. Herrman. 2008. Diversity and antibiotic resistance of enterococci associated with stored-product insects collected from feed mills. *J. Econ. Entomology* 44:198-203.

Lee, KM, T.J. Herrman, and B.L. Jones. 2009. Application of multivariate statistics in a risk-based approach to regulatory compliance. *Food Control* 20 (2009) 17-26.

Li, Wei, T.J. Herrman, S.Y. Dai. 2010. Rapid determination of fumonisins in corn-based products by liquid chromatograph-tandem mass spectrometry. *J. AOACI.* 93(5):1472-1481

Johnson, W., W.S. Ratnayake, D.S. Jackson, K.M. Lee, S. Bean, T.J. Herrman, and S.C. Mason. 2010. Factors affecting the alkaline cooking performance of selected corn and sorghum hybrids. *Cereal Chem.* 06-10-0087

Nansen, C., T. Herrman, R. Swanson. 2010. Machine vision detection of bonemeal in animal feed samples. *Applied Spectroscopy* 64(6):637-43

S. Y. Dai and T. J. Herrman. 2010. Evaluation of two liquid chromatography tandem mass spectrometry platforms in quantification of monensin in animal feeds and milk. *Rapid Commun Mass Spectrom.* 24(10):1431-8.

Lee, K.M., P.R. Armstrong, A. Thomasson, R. Sui, M. Casada, and T.J. Herrman. 2010. Development and characterization of food-grade tracers for the global grain tracing and recall system. *J. Agri. Food Chem.* 58:10945-10957.

Lee, K.M., P.R. Armstrong, A. Thomasson, R. Sui, M. Casada, and T.J. Herrman. 2011. Application of binomial and multinomial probability statistics to the sampling design process of a global grain tracing and recall system. *Food Control.* 22(2011)1085-1094.

- Li, Wei, T.J. Herrman, S.Y. Dai. 2011. Determination of aflatoxins in animal feeds by liquid chromatography-tandem mass spectrometry with isotope dilution. *Rapid Communications in Mass Spectrometry*. 25:9:1222-1230.
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