

Mindy Brashears
Texas Tech University
Department of Animal and Food Sciences
Lubbock, TX 79409
(806) 834-4274
(806)742-4003 (fax)
mindy.brashears@ttu.edu

EDUCATION

Oklahoma State University

Doctor of Philosophy in Food Science, Food Microbiology – August 1997
Master of Science in Food Science, Food Microbiology – May 1994

Texas Tech University

Bachelor of Science in Food Technology, Magna Cum Laude – May 1992

CURRENT POSITION

Department of Animal and Food Sciences, Texas Tech University

Professor (September 2009 – Present)
Associate Professor (September 2004 – September 2009)
Assistant Professor (May 2001 – September 2004)

International Center for Food Industry Excellence (ICFIE), Texas Tech University, Director

Center for Biodefense, Law and Public Policy, Texas Tech University School of Law, Faculty Member

West Texas A&M University, Adjunct Faculty Member

Responsibilities

Administrative

Secure and manage funding for center. Coordinate promotional activities. Supervise center staff.

Research

Conduct research to address current food safety issues in both pre-harvest and post-harvest environments. Specific projects include an evaluation of direct-fed microbials and other interventions to reduce *E. coli* O157:H7 in cattle, beef and spinach, determination of the correlation of shedding *E. coli* O157:H7 in the feedlot and contamination of the carcasses with pathogens, risk factors associated with the emergence of antimicrobial drug resistance, and validation of critical control points (CCPs) in beef, pork, poultry, and leafy green processing environments.

Teaching

Teach undergraduate and graduate courses in food microbiology, food safety, HACCP and grant writing.

Outreach

Assisting food processors with HACCP training and HACCP validation and verification. Conduct workshops on HACCP, Advanced HACCP, Sanitation, and Recalls.

PREVIOUS EXPERIENCE

University of Nebraska, Department of Food Science and Technology

Assistant Professor, Extension Food Safety Specialist (August 1997 – May 2001)

Responsibilities

Extension: Assisted the food industry with the implementation of HACCP programs, sanitation, preservation, and various other food safety issues.

Research: Conducted research related to applied food safety needs of the food industry including microbial interventions and HACCP validation in both pre- and post-harvest environments.

Oklahoma State University, Department of Animal Science

Graduate Research Assistant (August 1992 – August 1997)

CURRENT EDUCATIONAL ACTIVITIES

Undergraduate Courses

Food Microbiology

Food Safety

Graduate Courses

Food Microbiology

Current Topics in Food Microbiology

Food Safety

Grant Writing

Seminar

Director of Texas State FFA Food Science Contest for High School Students

Co-Director of Bob Albin Graduate Student Paper Competition

National Media Spokesperson for “Best Food Nation”

EXTENSION and OUTREACH ACTIVITIES

Designated as a Lead Instructor for the International HACCP Alliance

HACCP Training for Food Processors

HACCP Plan Development

HACCP Plan Verification

HACCP Plan Re-Assessment

Introductory HACCP Courses

Advanced HACCP Courses

Individualized HACCP Training for Processors

HACCP Plan Validation through Research in Pathogen Processing Area

On-Line HACCP

Spanish On-Line HACCP

In-Depth Verification Review Assistance

Recall Workshops and Recall Plan Development

Sampling Plan Development
Sanitation Workshops
Crisis Management during Recalls
Food Security

Specialized Training Courses Completed

International HACCP Alliance's Train the Trainer Course
Food Processors Institute's Advanced HACCP Workshop: Verification and Validation
National Association of Meat Processors In-Depth Verification Workshop
National HACCP Education Conference
American Meat Association Sampling for Control of *Listeria monocytogenes* Workshop

Food Safety Website (www.foodsafety.ttu.edu)

Designed, created and maintain a food safety website to educate consumers and food industry professionals about safe food handling
Developed downloadable forms to be used for developing HACCP plan
Answer consumer and processor questions about Food Safety and HACCP
Member of the USDA Food Safety Website Coordinators Group

HONORS

- Keynote Address Speaker – International Congress on Meat Science and Technology (ICOMST) in Cork, Ireland, 2017
- Fellow – National Academy of Inventors, (first for a faculty member from Texas Tech), 2016
- Top 25 Future Icon of the Beef Industry – National Provisioner Magazine, 2016
- Scientist of the Year – Lubbock chapter of the Achievement Rewards for College Scientists (ARCS) Foundation, 2014
- Laboratorian Award – International Association for Food Protection, 2014
- Hill Seminar Distinguished Scientist – Penn State University, 2012
- Farm Foundation – Exemplary Teamwork and Collaboration Award, 2011
- CASNR Advising Award – Texas Tech University, 2010
- Distinguished Achievement Award – American Meat Science Association, 2009
- “20 Under 40” Award – Young Professionals of Greater Lubbock, 2008
- Advanced Degree Graduate of Distinction – Oklahoma State University, 2008
- Big 12 Rising Star Award for Innovation In Research and Technology Transfer, 2006
- Research Award – College of Agricultural Sciences and Natural Resources (CASNR), Texas Tech University, 2005
- Selected as one of the top 6 experts in the United States on *E. coli* O157 to participate in the FSIS *E. coli* O157 Expert Solicitation Panel, 2005

- Invited as one of the top 30 scientists in the world to participate in a scientific panel, “Probiotic Microbes: The Scientific Basis” by the American Academy of Microbiology, the honorific leadership group of the American Society for Microbiology, November 2005
- USDA NRI Panel Manager – Food Safety, 2001 and 2002
- USDA NRI Panel Member – Food Safety, 2000
- *E. coli* O157 Task Force – National Cattleman’s Beef Association
- Burroughs Wellcome Fund Visiting Professorship in Microbiological Sciences – American Society for Microbiology – Served as a visiting professor in Food Safety and HACCP at the University of Puerto Rico, Humacao
- Appointed to Scientific Review Team for the USDA Risk Assessment for *E. coli* O157:H7, 2004
- Excel Food Safety Team Member to give presentations on Food Safety in North America, 2002
- Editorial Board, Journal of Food Protection
- Editorial Board of the Journal of Food Science
- Editorial Board of the Journal of Animal Science, Meat Science Section
- Silver Award for HACCP Video – National Ag Communicators of Tomorrow
- Epsilon Sigma Phi Team Award – Urban Pest Management Team, 1999
- Outstanding Ph.D. Student in the Department of Animal Science, Oklahoma State University, 1997
- E.M. Ahmed Graduate Student Scientist Award, 1997
- Joe V. Whiteman Award for Outstanding Graduate Student Research Paper, 1994 and 1997
- Sigma Xi
- Phi Kappa Phi
- Gamma Sigma Delta
- Golden Key
- Alpha Zeta
- Cardinal Key
- Alpha Lambda Delta
- Phi Tau Sigma

ORGANIZATIONAL CITIZENSHIP

National

Member

American Society for Microbiology
 International Association for Food Protection
 Institute of Food Technologists
 American Meat Science Association
 Conference for Research Workers and Animal Diseases (Elected Membership, 2004 – Present)
 National Alliance for Food Safety

Chair

S-295 USDA Multi-State Research Project, Food Safety

Other Offices Held: Secretary and Chair-Elect
National Alliance for Food Safety and Security

Board of Directors

National Alliance for Food Safety and Security

Editorial Boards

Ommega Publishers

Journal of Food Protection

Journal of Animal Science, Meat Science Section

Journal of Food Science

Ad Hoc Reviewer for JAVMA, International Journal of Food Microbiology, Journal of Food Safety, Applied and Environmental Microbiology

Editor Selection Committee

Journal of Food Protection, 2014

Award Committee

International Association for Food Protection, 2013 – 2014

Program Committee

International Association for Food Protection, 2010 – 2013

Steering Committee

Journal of Food Protection

Operations Committee

National Alliance for Food Safety

State

Agro Medicine Consortium – Organizational Committee

Nebraska's Farm to Table Food Safety Group

Nebraska Poultry Industry – Former Board Member

Nebraska Association of Milk, Food and Environmental Sanitarians Former Treasurer and President

Phi Tau Sigma – Former President

Nebraska Animal Production – Food Safety Coalition

Aksarben Section of IFT – Former President

University

Committee to Establish the National Academy of Inventors – TTU Chapter

Task Force for Review of University Centers

Undergraduate Research Task Force

Provost Search Committee

CASNR Dean Search Committee

Tenure Grievance Committee

Misconduct in Research Committee

Review Committee for Engineering Centers

College

CASNR Visioning Committee, Co-Chair

Research Committee, Chair

Dean Search Committee

Department

Graduate Committee

Curriculum Committee

Recruitment Committee

Advisor, Food Tech Club
Bob Albin Graduate Student Research Competition Chair
Committee for Student Recruitment

INTERNATIONAL EXPERIENCES

SOWER Scholars Program

Founder of the SOWER (Sustaining Our World Through Education and Research) program for student mentoring

Currently Conducting Research and Teaching Programs in the Following Countries: Mexico, Honduras, Costa Rica, Bahamas, Barbados, Panama, Nicaragua, Belize, and Colombia.

Collaborations with Governments / Ministers of Agriculture

Honduras (President and Minister of Agriculture)

Belize

Bahamas

Nicaragua

Collaborations with Universities

Universidad Nacional de Autonomia (UNA) Honduras

University of Burgundy

Universidad Zamorano

Bahamas Agriculture and Marine Science Institute (BAMSI)

Bahamas Agricultural and Industrial Corporation (BAIC)

Research Projects

Pathogen Baselines in Beef and Produce (Salmonella & E. coli O157:H7) in Honduras

Shrimp Biosecurity Plan Evaluation & Audit for the Honduran Government to Prevent Early Mortality Syndrome (in collaboration with SENASA)

Pathogen Baselines in Goats and Goat Meat in the Bahamas (in collaboration with IICA and BAMSI)

Food Safety, Animal Nutrition and Meat Science Project in Honduras to Establish Sustainable Production Systems in Honduras for Cattle (in collaboration with government and 9 farms)

Workshops

Hosted 50 students from Universidad Nacional Autonomia de Honduras (UNAH) for week of Trainings in Food Safety and Meat Processing, 2015

Meat School en Español for International Participants, Texas Tech, 2016

Meat Processing and Food Safety Workshop in the Bahamas, 38 Participants, 2016

Developing Value-Added Meat Products and Food Safety Programs in the Bahamas, 50 Participants, 2016

Food Safety, Meat Quality and Animal Production in the Bahamas, 66 Participants, 2016

RESEARCH SUMMARY

Grants Received

National, Commodity, Industry Funding

Total	\$20.1 Million
Texas Tech University	\$18.1 Million
University of Nebraska	\$ 2.0 Million

Mindy Brashears, Kendra Nightingale, Jhones Sarturi, Alejandro Echeverry and Mark Miller. 2016. Alternatives to Subtherapeutic Antibiotics in Beef Cattle Feeding to Improve Performance and Mitigate Emergence of Antimicrobial Drug Resistance. Texas Beef Council. \$50,000

Mindy Brashears, Todd Brashears, Marcos Sanchez, Mark Miller, Alejandro Echeverry and Carlos Carpio. 2016. Developing a Generation of Agricultural Change Agents in the Battle for Food Security through Capacity Building. US Department of Agriculture – National Institute of Food and Agriculture. \$750,000

Mindy Brashears, Todd Brashears, Kendra Nightingale, Mark Miller and Alejandro Echeverry. 2016. Antibiotic Resistance Surveillance in Retail Food Specimens in the Southwestern United States – US Food and Drug Administration. \$700,000

Mindy Brashears, Mark Miller, Todd Brashears, Jhones Sarturi, Sam Jackson, Carlos Carpio and Alejandro Echeverry. 2016. Building Capacity in the Honduran Cattle, Sheep and Goat Industries through Investment in Research and Education. \$400,000

Mindy Brashears. 2016. Borlaug Higher Education for Agricultural Research and Development (BHEARD) – Rwanda. US Agency for International Development (USAID) / Michigan State University. \$138,000

Mindy Brashears and Kendra Nightingale. Inhibition of *Listeria monocytogenes* on Soft Cheese using Lactic Acid Bacteria as a Biocontrol System Intervention. Dairy Management, Inc. \$65,000

Alejandro Echeverry and Mindy Brashears. 2016. Evaluating the Potential Non-Thermal Effects of Microwave Irradiation Treatments for STEC Decontamination of Fresh and Frozen Beef Intended for Non-Intact Beef Products. \$100,000

Cynthia McKinney and Mindy Brashears. 2016. Graduate Education at the Nexus of Global Horticulture and Human Nutrition to Enhance Community Resilience and Food Security. US Department of Agriculture – National Institute of Food and Agriculture. \$175,000

Mindy Brashears, Chance Brooks, and Sara Trojan. 2015. Antioxidant capacity and meat color stability of beef samples from cattle fed a feed supplement. Nutrition Physiology Corp. \$33,913

Mindy Brashears and Todd Brashears. 2015. Global Agricultural Innovation Initiative. Texas Department of Agriculture. \$50,000

Mindy Brashears, Chance Brooks, and Kendra Nightingale. The Effectiveness of Lactic Acid and Peracetic Acid Treatments on Beef Trim, Combined with Acidified Sodium Chlorite in Reducing Multiple Salmonella Serovars During Grinding. American Meat Institute Foundation. \$115,262

Capacity building. United State Department of Agriculture 2015. - \$120,000

Mindy Brashears and Kendra Nightingale. 2015. Pathogen Inhibition: Mechanisms and Environmental Studies. Nutrition Physiology Corp, \$122,000

Mindy Brashears, Marie Bugarel, Guy Loneragan, and Kendra Nightingale. 2014. Characterization and Discrimination of Salmonella using Molecular and Novel Challenge model Approaches. United States Department of Agriculture. \$200,000

Mindy Brashears and Guy Loneragan. 2014. Host, genetic, microbial, and environmental factors associated with Shiga toxin-producing Escherichia coli (STEC) shedding – United States Department of Agriculture. Subaward from Michigan State University. PI – Shannon Manning. Total Grant Amount \$1.2 Million. TTU Amount \$284,662

Mindy Brashears, Marcos Sanchez and Alejandro Echeverry. 2014. Determination of D and Z values of Salmonella ssp. in Rendered Products. Fats and Protein Research Foundation. \$22,000

Brashears, M. 2013-2015. Building Laboratory and Intellectual Capacity in order to Effectively Detect and Reduce Salmonella in the Food Supply. USDA/NIFA. \$693,047

Brashears, M. 2012-2015. Characterization and Discrimination of Salmonella using Molecular and Novel Challenge-model Approaches. Pfizer \$200,000

Brooks, J.C., M.M. Brashears, and A. Echeverry. 2013. The Risk and Thermal Susceptibility of Non-O157:H7 Shiga-toxin Producing Escherichia coli in Non-Intact Beef Products Intended for Food Service or Retail. National Cattlemen's Beef Association. \$149,952 (\$49,484)

Mindy Brashears, Chance Brooks, and Alejandro Echeverry. Impact of Needle Tenderization on the Safety of Beef. National Cattlemen's Beef Association. \$150,000

Mindy Brashears, Marie Bugarel, Guy Loneragan, and Kendra Nightingale. Characterization and Discrimination of Salmonella using Molecular and Novel Challenge model Approaches. United States Department of Agriculture. \$200,000

Mindy Brashears, Mark Miller, Todd Brashears. 2013. Reduction of E. coli O157:H7 in Small-Scale cow/calf operations using Best Management Practices. United States Department of Agriculture. Primary Institution – Oklahoma State University (Divya Jaroni). \$125,523

Mindy Brashears, J. Chance Brooks, Alejandro Echeverry, Guy Loneragan, Mark Miller, and Kendra Nightingale. Mitigation of Salmonella in Lymph Nodes using a Pre-harvest Intervention. American Meat Institute Foundation. \$89,914

Mindy Brashears, J Chance Brooks, and Guy Loneragan. Determining the Incidence and Antimicrobial Susceptibility of Salmonella Serovars Isolated from U.S. Retail Ground Pork, National Pork Board, \$56,657

M. Todd Brashears, Mindy Brashears, Guy Loneragan, Markus Miller, and Kendra Nightingale. Building Laboratory and Intellectual Capacity in Order to Effectively Detect Salmonella in Food Supply, USDA, \$749,930

Mindy Brashears, J. Chance Brooks, Alejandro Echeverry, Lacey Guillen, and Guy Loneragan. E. coli O157:H7 as an Indicator for the "Big 6" STECs, National Cattlemen's Beef Association, \$50,000

Mindy Brashears and Guy Loneragan, Determine Whether a Commercially Available Vaccine is able to Clear Challenged induced Salmonella Lymph Node Colonization, National Cattlemen's Beef Association, Total \$40,100, TTU Total \$20,050

Mindy Brashears, Alejandro Echeverry, Guy Loneragan, and Markus Miller, Establishment of a Non-O157 Shiga-toxin Producing E.coli (STEC) Baseline, National Cattlemen's Beef Association, TTU Total \$40,000

Mindy Brashears and Guy Loneragan, Evaluation of E.coli O157 Extract Vaccine on Prevalence of non-O157 Shiga-toxin Producing E.coli (STEC), National Cattlemen's Beef Association, Total \$90,524, TTU \$40,262

Michel Brashears, Mindy Brashears, and Alejandro Echeverry, FAS Capacity Building and Assessment of Capabilities and Deficiencies of the Asia-Pacific Economic Cooperation (APEC) Laboratory Network, USDA, TTU Total \$14,332

Mindy Brashears, Host, Genetic, Microbial, and Environmental Factors Associated with Shiga Toxin-producing Escherichia coli (STEC) Shedding, USDA, TTU \$48,703

Mindy Brashears and Guy Loneragan, Pilot Testing Project for Animal NARMS Sampling, USDA, TTU Total \$48,000

Mindy Brashears and Guy Loneragan Quantification of the Relationship between Distiller's Grain Co-products and Escherichia coli O157:H7: Load in Real-world, Commercial Feedlot Settings, USDA, Total \$399,437, TTU \$199,718

Mindy Brashears, and Chance Brooks, SUPPLEMENT: Methods for Effectively Controlling E. coli O157:H7 and Salmonella during the Production of Non-intact Beef Products, National Cattlemen's Beef Association, Total \$15,000, TTU \$7,500

Mike Ballou, Michel Brashears, Mindy Brashears, Chance Brooks, Guy Loneragan, Markus Miller, Solutions for the Food Safety Threat Posed by Salmonella in the Lymph Nodes of Cattle Presented for Harvest, USDA, TTU \$597,045

Mike Ballou, Michel Brashears, Mindy Brashears, Chance Brooks, Guy Loneragan, Markus Miller, Solutions for the Food Safety Threat Posed by Salmonella in the Lymph Nodes of Cattle Presented for Harvest, National Cattlemen's Beef Association matching funds to USDA grant, TTU \$150,000

Mindy Brashears and Guy Loneragan. Host, genetic, microbial, and environmental factors associated with Shiga toxin-producing Escherichia coli (STEC) shedding – United States Department of Agriculture. Subaward from Michigan State University. PI – Shannon Manning. Total Grant amount \$1.2 Million. TTU Amount - \$284,662

Mindy Brashears, Mark Miller, Chance Brooks, Christine Alvarado, Pawan Takhar, Leslie Thompson, Todd Brashears, Shelly Harp, Deb Reed, Janice Boyce, Center for Food Industry Excellence, Texas – 2010, United States Department of Agriculture, \$843,000

Mindy Brashears, Guy Loneragan, Tony Bryant, John Ruby. Evaluation of E. coli O157 Bacterial Extract Vaccine, National Cattlemen's Beef Association, \$130,811

Mindy Brashears, Guy Loneragan, Dayna Harhay, Tom Edirington. Identification and Characterization of Population(s) at Greatest Risk for Presence of Salmonella within Lymph nodes, National Cattlemen's Beef Association, \$144,835

J. Chance Brooks, Mindy Brashears, Mark Miller, The Effect of Acidified Sodium Chlorite, Lactic Acid, and Cooking on the Survivability of *E. coli* in Needle Tenderized Beef Steaks, National Cattlemen's Beef Association, \$65,057

Mindy Brashears, Mark Miller, Chance Brooks, Christine Alvarado, Pawan Takhar, Leslie Thompson, Todd Brashears, Shelly Harp, Deb Reed, Janice Boyce, Center for Food Industry Excellence, Texas – 2009, United States Department of Agriculture, \$845,000

Mindy Brashears, Mark Miller, Todd Brashears. 2009. Reduction of *E. coli* O157:H7 in Small-Scale cow/calf operations using Best Management Practices. United States Department of Agriculture. Primary Institution – Southern University (Divya Jaroni). Awarded Amount: \$1.0 million TTU Amount: \$400,000

Mindy Brashears, Mark Miller, Todd Brashears, Chance Brooks, Brad Johnson. 2009. Quantification of the Relationship between Distiller's Grains Co-Products and *Escherichia coli* O157:H7 Load in Real-World, Commercial Feedlot Settings. United States Department of Agriculture. Primary Institution – West Texas A&M University (Guy Loneragan). Awarded Amount: \$800,000 TTU Amount: \$285,000

Brooks, J.C., M.M. Brashears and M.F. Miller. 2009. The Effect of Acidified Sodium Chlorite, Lactic Acid, and Cooking on the Survivability of *E. coli* in Needle Tenderized Beef Steaks. National Cattlemen's Beef Association. \$53,057

Mindy Brashears, Mark Miller, Chance Brooks, Christine Alvarado, Pawan Takhar, Leslie Thompson, Todd Brashears, Shelly Harp, Deb Reed, Janice Boyce, Center for Food Industry Excellence, Texas – 2008, United States Department of Agriculture, \$943,353, \$179,237

Mindy Brashears, Mark Miller, Todd Brashears, Minimizing Microbial Food Safety Hazards of Fresh and Fresh-Cut Fruits and Vegetables Through a Farm to Table Approach, United States Department of Agriculture, \$199,675, \$65,892

Mindy Brashears, Guy Loneragan (WTAMU), Morgan Scott, Bo Norby (TAMU)

Novel Pre-Harvest Intervention to protect Antimicrobials of Critical Importance in Human and Veterinary Medicine. United States Department of Agriculture. Total Award: \$900,000 (TAMU) Texas Tech Amount: \$88,000

Mark Miller, Chance Brooks, Mindy Brashears, Evaluation of Shelf Life of Australian Beef. Meat Livestock Australia. \$122,000

Mindy Brashears, Enusha Karunasena, The Consequences of Feed Withdrawal from Cattle and Its Effect on Pathogenic *Escherichia coli* O157:H7 Distribution, Proliferation and Virulence: A Model of Transportation Stress on Cattle & Pathogen. South Plains Foundation. Total amount- \$15,000

Mindy Brashears, Mark Miller, Chance Brooks, Carcass Mapping to Determine *E. coli* O157 Distribution on Beef Carcasses, National Cattlemen's Beef Association, \$103,773, \$41,509

Christine Alvarado, Pawan Takhar, Mindy Brashears, Control of *Listeria monocytogenes* on Contact and Non-Contact Surfaces by Electrostatic Spraying of Sanitizers, United States Poultry and Egg Association, \$40,890, \$12,267

Chance Brooks, Mark Miller, Mindy Brashears, Impact of Ground Beef Packaging Systems and Temperature Abuse on the Quality of Ground Beef, National Cattleman's Beef Association, \$31,623, \$12,649

Chance Brooks, Mark Miller, Mindy Brashears, Impact of Ground Beef Packaging Systems and Temperature Abuse on the Safety and Quality of Ground Beef, American Meat Institute Foundation, \$63,245, \$25,298

Chance Brooks, Mark Miller, Mindy Brashears, Impact of Ground Beef Packaging Systems and Temperature Abuse on the Safety of Ground Beef, National Cattleman's Beef Association, \$31,623, \$12,649.

Mindy Brashears, Mark Miller, Chance Brooks, Todd Brashears, Pre-Harvest Critical Control Points in Feed Yards to Prevent Cross-Contamination of Pathogens onto Cattle and Other Environmental Areas, United States Department of Agriculture, \$597,652, \$179,295

Chance Brooks, Mark Miller, Mindy Brashears, The Survivability, Growth and Heat Susceptibility of *E. coli* O157:H7 in Enhanced Beef Brine Solutions Containing Salt, Potassium Lactate, National Cattleman's Beef Association, \$125,500, \$50,200

Mindy Brashears, Margaret Brinkley, Improving Hand Hygiene Compliance in Restaurants, United States Department of Agriculture/Regents of the University of California, \$195,262, \$48,815

Shelley Harp, Brent Shriver, Janice Boyce, Mark Miller, Leslie Thompson, Chance Brooks, John Blanton, Kevin Pond, Pawan Takhar, Christine Alvarado, Mindy Brashears, Todd Brashears, Center for Food Industry Excellence, United States Department of Agriculture, \$1,266,717, \$291,344

Chance Brooks, John Blanton, Mark Miller, Mindy Brashears, Development and Validation of Intervention Strategies to Control *Escherichia coli* O157:H7 and *Salmonella* spp in Needle Tenderized and Injected Beef, National Cattleman's Beef Association, \$134,073, \$60,332

Mindy Brashears, Inter-Lab Comparison Study, National Cattleman's Beef Association/Washington State, \$7,200, \$7,200

Mindy Brashears, Mark Miller, Chance Brooks, Phase 1: Food - The Effect of Meat Packaging Technologies on the Safety and Spoilage- Indicating Characteristics of Ground Beef, National Cattleman's Beef Association, \$40,732 , \$13,848

Chance Brooks, Mark Miller, Mindy Brashears, Phase 2: Spoilage - The Effect of Meat Packaging Technologies on the Safety and Spoilage-Indicating Characteristics of Ground Beef, National Cattleman's Beef Association, \$87,752, \$28,958

Mark Miller, Chance Brooks, John Blanton, Mindy Brashears, Reduction of Food-Borne Pathogens on Cattle During Loading through Control of Dust Generation, National Cattleman's Beef Association, \$66,550, \$19,965

Mark Miller, Chance Brooks, Mindy Brashears, Reduction of the Food-Borne Pathogens Salmonella on Cattle During Loading through Control of Dust Generation at the Feedlot, National Cattleman's Beef Association, \$66,824, \$22,051

Mindy Brashears, Christine Alvarado, John Blanton, Chance Brooks, Mark Miller, Risk Factors and Consequences Associated With Condensation in Fresh and Ready-to-Eat Processing Facilities, American Meat Institution Foundation, \$95,445, \$19,089

Mindy Brashears, Enusha Karunasena, Chance Brooks, Mark Miller, The Consequences of Stress and Diet on the Immune and Endocrine Systems of Cattle and Their Effects on the Seasonal Shedding of Escherichia coli 0157:H7, National Cattleman's Beef Association, \$90,089, \$36,035

Mindy Brashears, Michael Galyean, Reduction of E. coli 0157 in Beef Feedlot Cattle Using Varying Doses of a Direct-Fed Microbial, Nutrition Physiology Corporation, \$172,770, \$43,192

Mindy Brashears, Comparison of Rapid and Immunomagnetic Separation Methods for Detection and Quantification of E. coli 0157 in Fecal, Hide and Carcass, National Cattleman's Beef Association, \$84,132, \$84,132

Christine Alvarado, Mindy Brashears, Controlling Listeria Monocytogenes in Further Processed Meat, National Alliance for Food Safety and Security, \$107,847, \$26,961

Todd Brashears, Mark Miller, Mindy Brashears, Development of a Pre-Harvest Educational Program for Cattle Producers- Food Safety Inspection Service, United States Department of Agriculture, \$50,190, \$16,562

Christine Alvarado, Todd Brashears, Mindy Brashears, Development of an Online HACCP Certification and Hazard Analysis Resource List for Shell and Further Processed Eggs - Food Safety Inspection Service, United States Department of Agriculture, \$35,293, \$11,646

Mark Miller, John Blanton, Chance Brooks, Mindy Brashears, Effects of Dust Cloud Cross-Contamination on E. coli 0157 and Salmonella during Cattle Transport, National Cattleman's Beef Association, \$68,125, \$17,181

Mindy Brashears, John Blanton, Feedlot Production Practices and Their Impact on Pre- and Post-Harvest Antimicrobial Susceptibility Patterns of Enteric Bacteria, National Cattleman's Beef Association/West Texas A&M University, \$428,841, \$428,841

Christine Alvarado, John Blanton, Mindy Brashears, Inhibition of Campylobacter in Whole Chicken Carcasses Using Intervention Technologies, Supachill USA Inc., \$43,285, \$21,642

Mindy Brashears, Michael Galyean, Reduction of E. coli 0157 in Beef Feedlot Cattle Using Varying Doses of a Direct-Fed Microbial, Nutrition Physiology Corporation, \$172,770, \$43,192

Chance Brooks, Mark Miller, Todd Brashears, Mindy Brashears, Reduction of E. coli and Salmonella in Ground Beef Using Rosemary Oleoresin and Oregano Essential Oils - Food Safety Inspection Service, United States Department of Agriculture, \$50,350, \$12,587

Mark Miller, Chance Brooks, Todd Brashears, Mindy Brashears, Reduction of Escherichia coli 0157:H7 and Salmonella ssp. Using Dry Chilling in Small Processing Plant Environments - Food Safety Inspection Service, United States Department of Agriculture, \$50,000, \$12,500

John Blanton, Chance Brooks, Mark Miller, Mindy Brashears, Validation of Trichloromelamine as an Effective Hide Wash Technology, National Cattleman's Beef Association, \$61,262, \$15,315

Mindy Brashears, Christine Alvarado, Chance Brooks, Todd Brashears, Verification of Microwave Technology for the Elimination of Food-Borne Pathogens in Whole Shell Eggs and the Development of New Applications in the USA Food Industry, ITACA, \$55,711, \$13,927

Mindy Brashears, Mark Miller, Application of Antimicrobial Treatments in a Commercial Stimulation to Reduce *E. coli* 0157:H7 and *Salmonella* spp. in Beef Trim and in Ground Beef, National Cattleman's Beef Association, \$80,285, \$40,342

Shelley Harp, Brent Shriver, Janice Boyce, Mark Miller, Leslie Thompson, Chance Brooks, John Blanton, Kevin Pond, Pawan Takhar, Christine Alvarado, Mindy Brashears, Todd Brashears, Center for Food Industry Excellence- CSREES, U.S. Department of Agriculture, \$2,518,213, \$306,628

Christine Alvarado, Mindy Brashears, Leslie Thompson, Comparison of Wire and Plastic Belts on Microbial Load and Biofilm Formation, Wirebelt Company, \$34,100, \$8,525

Mindy Brashears, Impact of Feeding Neomycin on the Emergence of Antimicrobial Drug Resistance in *E. coli* 0157, *Salmonella* spp. and Commensal Organisms in Cattle, National Cattleman's Beef Association, \$67,450, \$67,450

John Blanton, Mindy Brashears, Brett Barham, Chance Brooks, Mark Miller, Impact of Transportation of Feedlot Cattle to the Harvest Facility on the Prevalence of *E. coli* 0157:H7 and *Salmonella* spp., National Cattleman's Beef Association, \$79,640, \$15,928

Mindy Brashears, Microbial Testing to Determine Effects of Live Cultures of *Lactobacillus acidophilus* on Shedding of *E. coli* 0157:H7 in Finishing Beef Steers, Nutrition Physiology Corporation, \$157,424, \$91,400

Mindy Brashears, Chance Brooks, Todd Brashears, Mark Miller, Guy Loneragan, Pre-Harvest Critical Control Points in Feed Yards to Prevent Cross-Contamination of Pathogens into Cattle and other Environmental Areas, USDA - Integrated Research, Extension and Education Program, \$597,652

Mark Miller and Mindy Brashears, Impact of dust "A pathogen Cloud" during loading of feedlot cattle during transportation to the harvest facility on the Prevalence of *E. coli* 0157:H7 and *Salmonella* spp. Phase II, National Cattleman's Beef Association \$130,000

Mindy Brashears and Todd Brashears, Foundation Account Food Safety Research, Nutrition Physiology Corporation, \$180,000

Guy Loneragan and Mindy Brashears, Improvements in microbial quality of retention-pond water in response to copper sulfate treatment, Five Rivers, \$26,000

Mindy Brashears, Chance Brooks, Christine Alvarado, Leslie Thompson, Shelf-Life Validation Study, Chili's, \$55,000

Mindy Brashears and Guy Loneragan, Identification of the at-risk population(s) for shedding *Salmonella* in harvest-ready cattle-Phase I, National Cattleman's Beef Association, \$66,000

Mindy Brashears and Guy Loneragan, Identification of the at-risk population(s) for shedding *Salmonella* in harvest-ready cattle-Phase II, National Cattleman's Beef Association, \$100,000

Mindy Brashears, Guy H. Loneragan, Randall S. Singer, Daniel U. Thomson, Michael J. Engler, Feedlot production practices and their impact on pre- and post-harvest antimicrobial susceptibility patterns of enteric bacteria, USDA Cooperative Research, Education and Extension Service, \$1,465,767

Mindy Brashears, Mark Miller, Chance Brooks, John Blanton, Todd Brashears. Reduction of *E. coli* O157:H7 and *Salmonella* spp. in ground beef using a novel intervention system combining pathogen reduction methods and replacement of natural flora with lactic acid bacteria, USDA-FSIS, \$50,000

Christine Alvarado and Mindy Brashears, Controlling *Listeria monocytogenes* in further processed meat, National Alliance for Food Safety and Security, \$250,000

Mike Galyean, Guy Loneragan, Mindy Brashears, Reduction of *E. coli* O157 in Beef Feedlot Cattle using Varying Doses of a Direct-Fed Microbials, Nutrition Physiology Corporation, \$140,000

Mindy Brashears, Guy Loneragan, Comparison of Rapid and Immunomagnetic Separation Methods for Detection and Quantification of *E. coli* O157 in Fecal, Hide, Carcass and Ground Beef Samples, National Cattleman's Beef Association, \$79,182

Mindy Brashears, Guy Loneragan, Mike Engler, David Smith, Rodney Moxley Bioniche. Effect of administration of a novel, pre-licensure vaccine on prevalence and bacterial concentration in harvest-ready feedlot cattle, \$127,330

Mindy Brashears, Michael S. Brown, Guy H. Loneragan, Influence of direct-fed microbials on *E. coli* O157 by yearling beef steers, Nutrition Physiology Corp., \$90,000

Mindy Brashears, Guy H. Loneragan, Validation of Sampling Methods to Determine the Prevalence of *E. coli* O157:H7 in Beef Feedlot Cattle, National Cattlemen's Beef Association, \$21,875

Mindy Brashears, Guy H. Loneragan, , Impact of feeding neomycin on the emergence of antimicrobial drug resistance in *E. coli* O157, *Salmonella* spp. and commensal organisms in cattle. National Cattlemen's Beef Association, \$67,450

Mindy Brashears, Reduction of *E. coli* O157:H7 in Beef Feedlot Cattle using Varying Doses of a Direct-Fed Microbials, American Meat Institute/National Cattleman's Beef Association, \$154,000

Mindy Brashears, Validation of Multi-Hurdle Antimicrobial Treatments to Reduce *E. coli* O157 and *Salmonella* spp. in Beef Trim and Ground Beef in Small and Very Small Processing Facilities, USDA/FSIS, \$25,000

Mindy Brashears, Guy Loneragan, Impact on Hide Interventions and Cleaning on the Microbial Quality of Beef Carcasses in Small and Very Small Processing Plants, USDA/FSIS, \$25,000

Mindy Brashears, Guy Loneragan, Reduction of *Salmonella* and *E. coli* O157:H7 in beef cattle in commercial feedlots, Nutrition Physiology Corporation, \$61,000

Mindy Brashears, Pen Origin Dust Control Using Feedlot Effluent and *E. coli* O157 Status of Market Ready Feedlot Cattle, ContiBeef, \$50,000

Mindy Brashears, Validation of Interventions to be Used in Small and Very Small Meat Processing Facilities, USDA - Integrated Research, Extension and Education Program, \$600,000 (Collaborators – Washington State University, Penn State University)

Mindy Brashears, James Smith, Multi-functional Web-based HACCP and Food Safety Course Development, USDA Integrated Research, Extension and Education Program. \$370,000 (Collaborators – University of Nebraska, Alabama A&M)

Mindy Brashears, Todd Brashears, HACCP Training and Research to Assist Meat Processors with Process Deviation for Lethality and Stabilization, \$511,000 (Collaborators – University of Nebraska, Kansas State University)

Mindy Brashears, Mike Galyean, Increasing the Marketing Value of Cottonseed as a Pre-Harvest Control Measure for *E. coli* O157:H7 in Feedlot Cattle, International Cotton Research Council, \$75,000

Mindy Brashears, Mark Miller, Determination of the Efficacy of a Lactic Acid Probiotic Treatment on the Reduction of *E. coli* O157 in Commercial Feedlot Settings, Nutrition Physiology/Excel , \$83,463

Mindy Brashears, Mark Miller, Microbiological Sampling for Microbial Tracking Study, National Cattlemen's Beef Association, \$25,900

Mindy Brashears, Mike Galyean, Ron Warner, Critical Step Validation for Pre-Harvest Microbial Food Safety Strategies, Texas Cattle Feeders, \$16,959

Mindy Brashears, Competitive Inhibition of *E. coli* O157:H7 and *Salmonella spp.* in Ground Beef Products, NCBA/TX Beef Council, \$19,160

Mindy Brashears, Pre-Harvest Food Safety Interventions, Nutrition Physiology Corporation, \$72,048

Mindy Brashears, Validation of Temperature Parameters as CCPs during Pork Fabrication, National Pork Producers Council, \$24,500

Mindy Brashears, Competitive Inhibition of *Listeria monocytogenes* in Ready-to-Eat Pork Products: Phase II, National Pork Producers Council, \$22,000

Mindy Brashears, Mike Galyean, Testing of Probiotic Bacteria for the Elimination of *Escherichia coli* O157:H7 in Cattle, American Meat Institute, \$123,000

Leslie Thompson, Linda Hoover, Kenny Wu, Mindy Brashears, Impact of high-speed chilling/freezing immersion in the microbiological and sensory quality of produce, Texas Tech Multidisciplinary Seed Grant, \$20,000

Leslie Thompson, Linda Hoover, Kenny Wu, Mindy Brashears, Impact of high-speed chilling/freezing immersion in the microbiological and sensory quality of produce, ATP, \$121,000

Mindy Brashears, Guy H. Loneragan, Critical-step validation for pre-harvest microbial food safety strategies, Houston Livestock Show and Rodeo, \$4,000

Mindy Brashears, Conrad Lyford, Kyle Dalh, Analysis of Pre-Harvest Food Safety Systems for the Beef Industry, Houston Livestock Show and Rodeo, \$5,000

Mindy Brashears, Feasibility of Carcass Submersion as a Post-Chill Intervention, Nebraska Beef, LTD, \$10,000

Kenny Wu, Leslie Thompson, Linda Hoover, Mindy Brashears. Probiotic Effects on Rat Intestinal Microstructure and Fecal Microbial and Organic Compound Profiles, Texas Tech University, \$10,000

Mindy Brashears, Evaluation of Intervention Strategies in Feedlot Environments, Nebraska Beef Council, \$120,000*

Mindy Brashears, Extension and Education Program - Improving HACCP Systems for Small Meat and Food Processors in Four Midwest States, USDA Integrated Research, \$540,000*

Mindy Brashears, CCP Identification and Validation during Poultry Production and Processing, USDA Special Research Grants Program, \$250,000*

Mindy Brashears, HACCP Implementation/Management for Small Meat and Food Processors in 4 Midwest States, USDA Food Safety and Quality National Education Initiative, \$200,000*

Mindy Brashears, Competitive Exclusion of *E. coli* O157:H7 in Cattle, Nutrition Physiology Corporation, \$120,000*

Mindy Brashears, Isolation and Characterization of Antibiotic-Resistant Microorganisms from Poultry, Mussehl Poultry Research Endowment, \$15,000*

Mindy Brashears, Inhibition of *Listeria monocytogenes* in Ready to Eat Poultry Products with Ionized Water, Mussehl Poultry Research Endowment, \$15,000*

Mindy Brashears, Development of Generic Egg HACCP Models, USDA/FSIS, \$50,000*

Mindy Brashears, Testing of Probiotic Bacteria for the Elimination of *Escherichia coli* O157:H7 in Experimentally Infected Cattle, MAFMA, \$24,000*

Mindy Brashears, Competitive Inhibition of *Listeria monocytogenes* in ready to eat pork products, National Pork Producers Council, \$17,500*

Mindy Brashears, Plan of Work - Food Safety Extension in Nebraska, USDA, \$30,000*

Mindy Brashears, Delivery of "Introduction to HACCP Principles" Video to USDA Federally Inspected Very Small Meat and Poultry Processors, USDA/FSIS, \$21,658*

Mindy Brashears, Translation to Vietnamese and Delivery of "Introduction to HACCP Principles" Video to USDA Federally Inspected Very Small Meat and Poultry Processors, USDA/FSIS, \$9,900*

Mindy Brashears, Translation to Chinese, and Korean and Delivery of "Introduction to HACCP Principles" Video to USDA Federally Inspected Very Small Meat and Poultry Processors, USDA/FSIS, \$24,570*

Mindy Brashears, Enhancing Food Safety through Control of Foodborne Disease Agents, Regional Research Project S-263, \$36,000*

Mindy Brashears, Competitive Inhibition of Food-borne Pathogens in Meat, Layman Award, \$7,200*

Mindy Brashears, Inhibition of Food-borne pathogens by *Lactobacillus lactis* during refrigerated storage in laboratory media, Research Grant-In-Aid, University of Nebraska, Research Council Office, \$2,784*

Mindy Brashears, Microbial Verification of HACCP Systems in Meat Processing Establishments, Research Grant-In-Aid, University of Nebraska Research Council Office, \$4,000*

Mindy Brashears, *E. coli* O157:H7 Research, State of Nebraska – Legislative Bill 1206, \$75,000*

Mindy Brashears, Competitive Inhibition of Food-borne Pathogens in Poultry Products, Mussehl Poultry Research Endowment, \$10,000*

Mindy Brashears, Shelly McKee, Efficacy of Feeding Egg IgY from Hens Immunized Against *Salmonella enteritidis* (SE) to Treat and Prevent SE Infection in Hens, Mussehl Poultry Research Endowment, \$10,000*

Mindy Brashears, Effect of Probiotics on Enteric Colibacillosis, National Pork Producers Council, \$18,500*

Mindy Brashears, HACCP Education for Extension Educators, University of Nebraska – IANR Extension Division, \$9,000*

Mindy Brashears, Food Safety Extension in Nebraska, USDA – Plan of Work, \$20,000*

**Awarded at University of Nebraska*

Invited Presentations

International

Brashears, M.M., Echeverry A. Advanced HACCP and Validation Workshop. TFCC, Universidad Pontificia Bolivariana, and the Colombian Food Technology Association (ACTA). Medellin, Colombia, June 2014. 32 Attendees.

Brashears, M.M., Sanchez M. Introduction to HACCP. IICA. Nassau, The Bahamas, April 8-12, 2014. 25 Attendees.

Brashears, M.M., Echeverry A., Miller, M. HACCP Implementation Program and Ante Mortem and Post Mortem Inspection. Costa Rican Beef Industry. San Jose de Costa Rica, Costa Rica, May 6-9, 2014. 40 Attendees.

Brashears, M.M., Trojan, S. Preventing Food Waste. BAIC (Bahamian Government). Nassau, The Bahamas, March 24, 2015. 50 Attendees.

Brashears, M.M. Implementation of Pathogen Reduction Programs and Baselines in Latin America – International Forum of Healthy Foods [*In Spanish: Implementación de Programas de Reducción de Patógenos y Marcos Base de Referencia en Latino América*]. Foro Internacional de Alimentos Sanos. Guadalajara, Jalisco, Mexico, Servicio Nacional de Sanidad, Inocuidad y Calidad Agroalimentaria (SAGARPA) September 11-12, 2014.

Brashears, M.M. Improving the Beef Cattle System in the Bahamas. Focus group sessions. Invited by BAIC and IICA. October, 2014, Nassau. 60 Attendees.

Brashears, M.M. Food Safety and Security and Research at Texas Tech University. Presented at the Technology University of Panama. December 2014. Panama City, Panama. 100 Attendees.

Brashears, M.M. 2012. Food Safety Training and Research in Latin America. Presented at the Annual Latin American meeting of IFT. Guadalajara, Mexico. February 2012.

Brashears, M.M. 2012. International Center for Food Industry Excellence Food Safety Research. Presented to the Cattleman's Industry Association. San Salvador, El Salvador. March 2012.

Brashears, M.M. 2012. International Center for Food Industry Excellence: Research and Graduate School Opportunities. Presented at UNAM. Telecigalpa, Honduras. April 2012.

Echeverry, A. and M.M. Brashears. 2012. Comparación de Cargas Patogénicas en Plantas de Sacrificio TIF y No-TIF en México [Comparison of pathogenic loads from TIF and non-TIF slaughter plants in Mexico]. *5° Congreso Internacional del Caribe y 3° Congreso Latinoamericano "sobre Inocuidad, Calidad y Funcionalidad de los Alimentos en la Industria y Servicios de Alimentación"*. Mazatlan, Sinaloa, México, October 29 – November 2.

Parks, A. and M.M. Brashears. 2012. Overview of Food Safety Projects in Mexico. 5° Congreso Internacional "Sobre Inocuidad, Calidad Funcionalidad de los Alimentos en la Industria y Servicios de Alimentación" Mazatlán, Sinaloa, México October 29 – November 2.

Brashears, M.M. and A. Echeverry. 2010. Inocuidad de limentos: *Aproximacion Sistemática para el control de patógenos Intervenciones antimicrobianas en la planta de procesamiento avícola* " Food Safety, a Systems Approach - Antimicrobial Interventions in the Poultry Processing Environment". VIII Symposium in Poultry Processing and Safety in Queretaro, Mexico. October 28-29.

Brashears, T., M.M. Brashears, and A. Echeverry. 2010. *Estudio acerca del nivel educativo del personal involucrado en el sistema HACCP* "Evaluation of Participants' Knowledge scores in an International HACCP Workshop". VIII Symposium in Poultry Processing and Safety in Queretaro, Mexico. October 8-29.

Invited Speaker to the ProSafeBeef Conference in Dublin, Ireland, March 2009.

Invited Speaker to the VTEC (Verotoxin Producing *E. coli*) Meeting in Buenos Aires, Argentina, May 2009.

Keynote Speaker for the COMECARNE and MEXITEC Annual Convention. Results of a retail food safety survey we conducted in Mexico. November 2009.

Keynote Speaker for the COMECARNE Annual Convention. HACCP and Food Safety Needs in Mexico and the US. November 2008.

National

Brashears, M.M. 2013. Food Safety Research of Mutual Interest to the U.S. and Latin America. FSIS Internal Presentation. November 2013.

Chaves, B., L. Garcia, A. Echeverry, M. Miller, and M.M. Brashears. 2013. Prevalence of *Salmonella enterica*, *Escherichia coli* O157:H7 and Non-O157 Shiga Toxin-producing *Escherichia coli* in Beef Cuts Sold at Retail Markets in Costa Rica. Presented at the 102nd annual meeting of the International Association for Food Protection, Charlotte, North Carolina. July 25-July 28.

Echeverry, A., and M.M. Brashears. 2013. Beef Safety: Mechanically Tenderized and Needle Enhanced Products and Foodborne Pathogens. Presented at the 2013 Beef Industry Safety Summit (BIFSCO). Dallas, Texas, March 13-15.

Echeverry, A., W.E. Chaney, G.H. Loneragan, J.C. Brooks, K. Nightingale and M.M. Brashears. 2013. Post-Harvest Pathogen Reduction Session: *Escherichia coli* O157:H7 as an Indicator for Efficacy of Antimicrobial Interventions to Control non-O157 Shiga Toxin Producing *E. coli* (STEC). Presented at the 2013 Beef Industry Safety Summit (BIFSCO). Dallas, Texas, March 13-15.

Brashears, M.M. 2012. Seeing a Global Perspective through the Microscope. Presented as the Hill Lecturer at Penn State University. March 2012.

Brashears, M.M. 2012. International Opportunities in Food Safety. Presented as the Hill Lecturer at Penn State University. March 2012.

Chaney, W.E., Y.T. Liao, M.J. Wolf, A.R. Parks, J. Martin, A.J. Garmyn, A. Echeverry, L.D. Thompson, M.F. Miller, J.C. Brooks, G.H. Loneragan, and M.M. Brashears. 2012. *Escherichia coli* O157:H7 and non-O157 STEC Survival and Reduction on Intact Beef Subprimal and Non-intact Beef Trim and Steaks by Intervention and Cooking Processes. Beef Safety Summit, March 6-9, Tampa, FL.

Gragg, S.E., G.H. Loneragan, K.K. Nightingale, J.R. Elder, H. Ruiz, M.F. Miller, A. Echeverry, and M.M. Brashears. 2012. Prevalence and Characterization of *Salmonella* Recovered from Lymph Nodes and Feces of Cattle at Harvest in Mexican Slaughter Facilities. Beef Safety Summit, March 6-9, Tampa, FL.

Brashears, M.M. 2012. Issues Surrounding Control and Testing of STECs. Presented at the Annual meeting of the Institute of Food Technologists. Las Vegas, NV. June 2012.

Brashears, M.M. 2012. HACCP Validation Strategies. Presented at the annual Reciprocal Meats Conference. Fargo, SD. June 2012.

Brashears, M.M. and James Dickson. Guidelines for Validation Small and Very Small Processors. Reciprocal Meat Conference in South Dakota, June 2012.

Brashears, M.M. The Non-O157 Shiga Toxin *E. Coli*. Strains: Methodologies and Interventions. Institute of Food Technologists (IFT) Annual Meeting, NV, June 2012.

Brashears, M.M. Spicing up *Salmonella* Diversity: Reflections from International Studies in Mexico and Honduras. International Association for Food Protection (IAFP) Annual Meeting in RI, July 2012.

Brashears, M.M. 2012. Adventures in Latin America: Finding *Salmonella*. Presented at the Annual Meeting of the International Association for Food Protection. August, 2012.

Brashears, M.M. 2010. Invitation by USDA-NIFSI. Pathogen Baseline Prevalence in Mexico. Presented at the Annual Meeting for IAFP. Anaheim, CA.

Brashears, M.M. 2010. Invitation by the FAS. Collaborative Relationships and International Research Success. Presented to the Foreign Ag Service. Washington, DC.

Brashears, M.M. Food Safety Research Summit for NCBA in Dallas, TX in March 2008.

Brashears, M.M. Antimicrobial Administration and Emergence of Resistance. 2007 Beef Industry Safety Summit, Dallas, TX.

Brashears, M.M. 2007. Texas Tech University Food Safety Research Update. National Cattleman's Beef Association Food Safety Summit.

Brashears, M.M. 2007. Elite Dairymen Conference - Impact of Modifying Gastrointestinal Microbiology on Herd Health and Production.

Brashears, M.M. 2006. Antimicrobial Drug Resistance, *Salmonella*, and Research Needs. Joint Beef Safety Committee, Cattle Industry Annual Convention & Trade Show, Denver, CO.

Brashears, M.M. 2006. *Salmonella*, Drug Resistance, and Serotypes in Cattle Populations. Beef Industry Food Safety Summit, Jacksonville, FL.

Brashears, M.M. 2006. Reduction of VTEC Carriage in Cattle. 6th International Symposium on Shiga Toxin (Verocytotoxin) - Producing *Escherichia coli* Infections, Melbourne, Australia.

Brashears, M.M. February 2005. Epidemiology of Food-Safety Pathogens Carried by Beef Cattle, Food Safety: from the Surface Up- A National Food Safety Conference, Myrtle Beach, SC.

Brashears, M.M. International Center for Food Industry Excellence. USDA Non-Competitive Research Awards Program. August 2005.

Brashears, M.M. Overview of Reduction of *E. coli* O157 in Beef Feedlot Cattle using Direct-Fed Microbials. National Cattleman's Beef Association Food Safety Summit. Orlando, FL. April, 2005.

Brashears, M.M. Impact of Pre-Harvest Interventions on the Safety of Beef Feedlot Cattle. Northeastern Cattleman's Meeting in May, 2005. Seattle, WA.

Brashears, M.M. Pre-Harvest Food Safety Interventions. National S-295 Food Safety Meeting, "Food Safety from the Surface Up" in Myrtle Beach, SC. February 2005.

Brashears, M.M. Challenges with the Implementation of Pre-Harvest Food Safety Interventions. Southwest Reciprocal Meats Conference. Canyon, TX. Sep18, 2004.

Brashears, M.M. National Cattleman's Beef Association, Annual Meeting. Impact of Direct-Fed Microbials on the Prevalence of *E. coli* O157 in Beef Feedlot Cattle. Nashville, TN. Jan 30, 2003.

Brashears, M.M. National Cattleman's Beef Association, *E. coli* O157:H7 Summit. Impact of Direct-Fed Microbials on the Prevalence of *E. coli* O157 in Beef Feedlot Cattle. San Antonio, TX. Jan 7, 2003.

Brashears, M.M. State of Nebraska Second Annual Governor's Conference on Food Safety. Prevalence of *E. coli* O157:H7 in Cattle and Pre-harvest Control Strategies. Lincoln, NE. April 7-8, 2003.

Brashears, M.M. National Cattleman's Beef Association. Pre-harvest Intervention Technologies. *E. coli* Summit Task Force Meeting. Denver, CO. October 3-4, 2002.

Brashears, M.M. Prevalence and Control of Food-borne Pathogens in the Pre-Harvest Environment. Presented as a Part of the Excel, Food Safety and Technology V Conference, 2002. (Multiple North American Locations).

Brashears, M.M., Pre-harvest Interventions for Beef Feedlot Cattle. Pre-Harvest Pathogen Control Meeting. Oklahoma State University, Stillwater, OK. May, 2002.

Brashears, M.M. 2002. The Food Safety System: Past Accomplishments and Future Efforts to Improve Food-borne Outbreak Investigations. Annual Meeting of the International Association for Food Protection. San Diego, CA. July 1-3.

Brashears, M.M. 2002. Competitive Exclusion of *E. coli* O157:H7 in Beef Feedlot Cattle. Annual Meeting of the International Association for Food Protection. San Diego, CA. July 1-3.

Brashears, M.M. Competitive exclusion of food-borne pathogens in alfalfa sprouts. International Sprout Association's Annual Meeting, July, 2001. Nashville, TN.

Brashears, M.M. *Lactobacillus*. ASDA Discover Conference on Animal Probiotics, Nashville, IN. Sept. 2000

Brashears, M.M. and A. Amezcua. 2000. Competitive Inhibition of *Listeria monocytogenes* in Ready to Eat Pork Products. NPPC Pork Safety and Quality Summit. July, 2000. Des Moines, IA.

Brashears, M.M. HACCP: Applications and Challenges. Midwest Poultry Federation Annual Meeting. March 1999. St. Paul, MN

Brashears, M.M. Managing a Recall. Midwest Poultry Federation Annual Meeting. March 2002. St. Paul, MN.

Brashears, M.M. Listeria control in Ready to Eat Environments. Midwest Poultry Federation Annual Meeting. March 2002. St. Paul, MN.

State

Brashears, M.M. Going Commercial: How Ideas and Inventions Become Economic Realities. 7th Annual John Huffaker Agricultural Law Course. May 2013.

Brashears, M.M. Pathogens in the Food Chain. Nebraska Retail Grocer's Association, Meat Case Workshop. Oct. 1999.

Brashears, M.M. HACCP Implementation and Challenges. Nebraska Section of the American Society of Agricultural Engineers. October, 1999.

Brashears, M.M. Acidified Foods. Better Process Control School. Sept., 1997 and 1998. University of Nebraska, Lincoln, NE.

Brashears, M.M. Cooperative Extension's Emphasis on Food Safety. NAMFES Annual Meeting. April 1998. Lincoln, NE.

Brashears, M.M. Food Container Handling. Better Process Control School. Sept. 1997 and 1998. University of Nebraska, Lincoln, NE.

Brashears, M.M. GMP's , SOP's and HACCP. Urban Pest Management Conf. Jan. 1998. University of Nebraska, Lincoln, NE.

Brashears, M.M. The *E. coli* O157:H7 Situation. Urban Pest Management Conf. Jan 1998. University of Nebraska, Lincoln, NE.

Brashears, M.M. The University's Involvement in the Fight Against *E. coli* O157:H7. Governor's Ag Conference. March 1998. Kearney, NE.

Brashears, M.M. On-Farm HACCP for Poultry Producers. Nebraska Poultry Industries Annual Meeting. March 1999. Columbus, NE.

Brashears, M.M. Pathogens in the Food Chain. Beef Feedlot Roundtable. March, 1998. Grand Island, NE.

Brashears, M.M. Safe Use and Storage of Sanitizers. Urban Pest Management Conf. Jan. 1999. University of Nebraska, Lincoln, NE.

Brashears, M.M. *Salmonella typhimurium* DT 104. Urban Pest Management Conf. Jan. 1999. University of Nebraska, Lincoln, NE.

University

Brashears, M.M. Preservative Systems Used in Foods. Ingredient Functionality Workshop. May 1998. University of Nebraska, Lincoln, NE.

Brashears, M.M. Sampling Beef Carcasses for Generic *E. coli*. Beef 706 Workshops. 1998 and 1999. University of Nebraska, Lincoln, NE.

Brashears, M.M. Sampling Pork Carcasses for Generic *E. coli*. Pork 101 Workshops. 1998 and 1999. University of Nebraska, Lincoln, NE.

COMMERCIALIZATION

Bovamine Defend

Chief Scientist in the development of a commercialized product for pre-harvest reduction of pathogens in beef cattle. This is the first and only intervention implemented in the beef cattle industry. Is it recommended by the three major beef packers (Tyson, Cargill and ConAgra) for use in all feedyards and is the only pre-harvest intervention endorsed by the USDA-FSIS, American Meat Institute and the National Cattleman's Beef Association.

Royalties from this product are generated annually with a minimum of \$50,000 annually.

Lactiguard

Chief Scientist in the development of LactiGuard, a lactobacillus-based commercially available product for reduction of pathogens in meat and poultry products. Data were used to gain FDA approval and the product will soon be commercially available.

Royalties are generated annually to Texas Tech with a minimum of \$50,000 annually.

MicroZap

Led a team of scientists in bringing technology from Italy to the US and obtaining multiple patents around the world (see below).

Developed an initial LLC with our scientists which ultimately developed into MicroZap. We were awarded a \$1.5 million Emerging Technology Grant from the State of Texas.

The company has grown with major investors and is nearing major commercialization.

Currently a major stockholder and serve of the Board of Directors for the company.

Big 12 Rising Star Award for Innovation in Research and Technology Transfer, 2006

Patents

Patents Granted

1. Stull, W.D., Jr., A.A. Neuber, D.E. Sharbutt, M.T. Brashears, M.M. Brashears, C. Alvarado, J. C. Brooks. Microwave Disinfection and Sterilization. US. Priority Information Number US 225606 [20090715]. **MicroZap: A method and apparatus comprising microwave radiation pulses to reduce a microorganism population in an object.** 2016.
2. Don Stull, Andreas Alfred Neuber, David E. Sharbutt, Michel Todd Brashears, Mindy Brashears, Christine Alvarado, Chance Brooks. **Microwave disinfection and sterilization.** Publication number US 9,125,958 B2. Application Number US 14/174,937. Publication Date 8 Sep 2015.
3. Mindy M. Brashears, Guy H. Loneragan, Kendra Nightingale, J. Chance Brooks. **Lactic Acid and Other Probiotic Bacteria to Reduce Pathogens In Lymph Nodes And Other Lymphatic Tissues Of Livestock Animals.** Publication Number: US2015-0,182,565. Publication date: July 2, 2015.
4. Douglas R. Ware, Mindy M. Brashears. **Compositions and methods for reducing the pathogen content of meat or meat products.** Publication number: US8,980,611 B2. Application number: US 13/951,140. Publication date: March 17, 2015.
5. Christine Alvarado, J. Chance Brooks, Mindy M. Brashears, Todd Brashears, Gianfranco Coccoli, Pierluigi Sapelli, Mario Piazza, Stefania Franzoni, Federico Felappi, and Nicola Tolettini. **Method and System for Preserving Food.** Australian Patent Number 2008293458. Awarded July 31, 2014.
6. Mindy M Brashears, Kendra Nightingale, Guy Longeragan, and Quingli Zhang. **Quantification and Molecular Detection of Lactic Acid Bacteria in a Sample.** Application # 2014-0,199,697-A1. Published July 17, 2014.
7. Christine Alvarado, J Chance Brooks, Mindy M. Brashears, Todd Brashears, Gianfranco Coccoli, Pierluigi Sapelli, Mario Piazza, Stafania Franzoni, Federico Felappi, and Nicola Tolettini. **Method for Preserving Food.** Australian application number 2008293458. Awarded April 17, 2014.
8. Willis Don Stull, Jr., Andreas Alfred Neuber, Michel Todd Brashears, Mindy Malynn Brashears, Christine Alvarado, J Chance Brooks, and David E. Sharbutt. **Microwave Disinfection and Sterilization.** US Patent Number 8,679,401 B2. Date of Issue March 25, 2014.
9. Christine Alvarado, J Chance Brooks and Mindy M Brashears. **Method and System for Preserving Food.** Japanese Patent number 5391199. Date of Issue October 18, 2013.
10. Douglas R. Ware and Mindy M. Brashears. **Compositions and methods for reducing the pathogen content of meat or meat products.** US Patent Number 8,496,925 B2. Date of Issue July 30, 2013.

11. Ware, Douglas and Mindy Brashears. **Inhibition of Pathogenic Growth on Plant Materials Using Lactic Acid Producing Microorganisms.** Application #20120201795. US Patent filed April 29, 2012. 13,318,264.
12. J Chance Brooks, Mindy M. Brashears, and Gary L. Nace. **Laboratory Method and Experimental Specimen for Validating the Efficacy of Antimicrobial Agents on Bovine Carcasses.** Provisional Application No. 61/402,263. Filed on August 26, 2011 as United States Application Serial No. 13,219,503.
13. Don Stull, J Chance Brooks, Mindy M Brashears, Michel Todd Brashears, Christine Alvarado, and David Sharbutt. **Microwave Disinfection and Sterilization.** Publication No. US-2011-0,014,331-A1. Date of Issue January 20, 2011. Application # 100114331 PATENT: 9,125,958.
14. Mindy Brashears and Divya Jaroni, 2003. **Lactic acid bacteria cultures that inhibit food-borne pathogens.** US Patent Number 7,323,166, Date of Issue January 29, 2008.
15. Douglas R. Ware and Mindy M. Brashears. **Compositions and methods for reducing the pathogen content of meat and meat products.** US Patent Number 7,291,326, Date of Issue November 6, 2007.
16. Christine Alvarado, J Chance Brooks, Mindy M Brashears, M Todd Brashears, Gianfranco Coccoli, Pierluigi Sapelli, Mario Piazza, Stefania Franzoni, Federico Felappi, and Nicola Tolettini. Filed: 8/28/2007. **Method and System for Preserving Food. United States Letters Patent**, Publication number: US8,956,673.
17. Brashears, Mindy and Jeff Hudnall. **Antimicrobial Wax Composition for Wax Therapy.** US Patent 10/592077. Issued 5/8.2008. Publication number: US2008-0,107,751 A1

Patents Pending

1. Method and Composition for Reducing Pathogens in Rendered Food Products Using Lactic Acid Bacteria
2. Molecular Discrimination of Regulated and Non-Regulated Salmonella Serotypes
3. Quantification and Molecular Detection of Lactic Acid Bacteria in a Sample
4. Method and Composition for Reducing Pathogens in Pet Food Using Lactic Acid Bacteria
5. Serotype Discrimination Biomarkers to Distinguish Infantis from Heidelberg and Newport from Hadar
6. Method and System for Preserving Food. Patent application submitted to the Republic of China.

PUBLICATIONS

Book Chapters

Gragg, S.E. and M.M. Brashears. 2014. Hurdle Technology. In Encyclopedia of Meat Sciences, Second Edition. Elsevier, ISBN: 978-0-123-84731-7.

Laury A., A. Echeverry, and M.M. Brashears. 2009. Fate of Escherichia coli O157:H7 in Meat. In Safety of Meat and Processed Meats, Food Microbiology and Food Safety Series. Chapter 2, pp 31-53 (Toldra, F. ed.). Springer Science, New York, New York. ISBN: 978-0-387-89025-8.

Brashears, M.M., G.H. Loneragan, S. Dahl. 2005. Controlling Microbial Contamination on the Farm: An Overview. Raw Material Safety. In Improving the Safety of Fresh Meat Part 1. Elsevier. ISBN: 978-1-855-73955-0.

Brashears, M.M., A. Amezcuita, and D. Jaroni. 2005. Lactic Acid Bacteria and Their Uses in Animal Feeding to Improve Food Safety. Food and Nutrition Reviews.

DeWaal, C., Roberts, N., et al. 2005. Food Safety around the World: Center for Science in the Public Interest.

Dowd, S., J.Thurston-Enriquez, and M.M. Brashears. 2003. Environmental Reservoirs and Transmission of Foodborne Pathogens in Pre-Harvest and Post-Harvest Food Safety: Contemporary Issues and Future Directions.

Brashears, M.M., A. Amezcuita, and D. Jaroni. 2003. Control of food-borne Bacterial Pathogens in Animals and Animal Products through Microbial Antagonism. Food Biotechnology.

Refereed Journal Articles

Published/Accepted:

2017

1. Tapp, W.N., T.H. Davis, D. Paniukov, J.C. Brooks, **M.M. Brashears** and M.F. Miller. 2017. Beef assessments using functional magnetic resonance imaging and sensory evaluation. *Meat Sci* 126:11-17.
2. Chaves, B.D., H. Ruiz, L.G. Garcia, A. Echeverry, L. Thompson, M.F. Miller, and **M.M. Brashears**. 2017. High Prevalence of *Salmonella* in Lymph Nodes and Tonsils of Swine Presented for Slaughter in Mexico. *Food Prot. Trends*. 1, 25-29.

2016

3. K.E. Hanlon, M.F. Miller, L.M. Guillen, **M.M. Brashears**. 2016. Salmonella presence in mandibular, mesenteric, and subiliac lymph nodes collected from sheep and goats in the United States. *J Food Prot* 79 (11):1977-1981
4. K.E. Hanlon, M.F. Miller, L.M. Guillen, A. Echeverry, E. Dormedy, B. Cemo, L. Branham, S. Sanders, **M.M. Brashears**. 2016. Presence of Salmonella, *Escherichia coli* O157 and Campylobacter in small-ruminant (goat and lamb) fecal and hide samples collected in the United States, Bahamas and Mexico. *Meat Sci* (In Press)
5. Pokharel S., J.C. Brooks, J.N. Martin, A. Echeverry, A.R. Parks, B. Corliss, and **M.M. Brashears**. 2016. Internalization and thermal susceptibility of Shiga toxin-producing Escherichia coli (STEC) in marinated beef products. *Meat Sci* 116:213-220.
6. Pokharel, S. J.C. Brooks, J.N. Martin, and **M.M. Brashears**. 2016. Antimicrobial susceptibility and internalization of *Salmonella typhimurium* in vacuum-tumbled marinated beef products. *Let Appl Microbiol* 63:412-418.

7. Pond, A., M.F. Miller, A. Echeverry, N. Huerta, M.A. Calle, M.S. Rubio Lozano, A. Chavez, M.T. Brashears, and **M.M. Brashears**. 2016. Salmonella and *E. coli* O157:H7 Prevalence and Generic *E. coli* and Coliform Quantitative Baseline in Raw Pork and Beef in Retail Channels in Mexico. *Food Prot Trends* 36:8-17.
8. Chaves, B.D. and **M.M. Brashears**. Mitigation of *Listeria monocytogenes* in Ready-to-Eat Meats Using Lactic Acid Bacteria. *Food Safety* Dec 2016/Jan 2017.
9. K.E. Hanlon, M.F. Miller, L.M. Guillen, A. Echeverry, E. Dormedy, B. Cemo, L.A. Branham, S. Sanders, **M.M. Brashears**. 2016. Presence of Salmonella on sheep and goat carcasses and retail samples collected in the United States and Bahamas. (In Press)
10. Chaves, B.D., **M.M. Brashears**, and K.K. Nightingale. Applications and Safety Considerations of *Lactobacillus salivarius* as a Probiotic in Animal and Human Health. (In Press)
11. Narvaez-Bravo, C., A. Echeverry, M.F. Miller, A. Rodas-Gonzalez, M. T. Brashears, M. Aslam, and **M.M. Brashears**. 2016. Virulence Characterization and Molecular Subtyping of Typical and Atypical *Escherichia coli* O157:H7 and O157(-) Isolated from Fecal Samples and Beef Carcasses in Mexico. *J Food Prot* 78, 264-272.
12. Vipham, J.L., G.H. Loneragan, L.M. Guillen, J.C. Brooks, B.J. Johnson, A. Pond, N. Pond, and **M.M. Brashears**. 2016. Reduced Burden of *Salmonella enterica* in Bovine Subiliac Lymph Nodes Associated with Administration of a Direct-fed Microbial. *Zoonoses Public Health* doi: 10.1111/zph.12187.

2015

12. McCain, A.K., P. T. T. Vu, T. T. M. Tran, M. V. V. Le, D. H. Nguyen, P. R. Broadway, L. M. Guillen, **M. M. Brashears**, J. R. Donaldson, M. W. Schilling, and T. T. N. Dinh. 2015. Influence of Market Setting and Time of Purchase on Bacterial Counts and Prevalence of Salmonella and Listeria in Pork in Vietnam. *Agric Food Anal Bacteriol* 5: 166-182.
13. McCain, A.K., P. T. T. Vu, T. T. M. Tran, M. V. V. Le, D. H. Nguyen, P. R. Broadway, L. M. Guillen, **M. M. Brashears**, J. R. Donaldson, M. W. Schilling, and T. T. N. Dinh. 2015. Influence of Market Setting and Time of Purchase on Counts of Aerobic Bacteria, *Escherichia coli*, and Coliform and Prevalence of Salmonella and Listeria in Beef in Vietnam. *Agric Food Anal Bacteriol* 5: 132-152.
14. Casco, G., Johnson, J. L., Taylor, T. M., Gaytán, C. N., **Brashears, M. M.**, and Alvarado, C. Z. 2015. Controlling *Listeria monocytogenes* Scott A on Surfaces of Fully Cooked Turkey Deli Product Using Organic Acid-Containing Marinades as Post-Lethality Dips. *Intl J Food Sci*, 2015.
15. Pond, A., Miller, M., Echeverry, A., Huerta, N., Calle, A., Rubio, M., Chavez, A., Brashears, T., and **Brashears, M.** 2014. Salmonella and *E. coli* O157:H7 prevalence and generic *E. coli* and coliform quantitative baseline in raw pork and beef in retail channels in Mexico. *Food Prot Trends* (36):8-17.
16. Corliss, B., Brooks, J. C., Martin, J. N., Echeverry, A., Parks, A., Pokharel, S., and **Brashears, M.** 2015. The Influence of Beef Quality Characteristics on the Internalization and Thermal Susceptibility of Shiga Toxin-Producing *Escherichia coli* (STEC) in Blade-Tenderized Beef Steaks. *Meat Sci* 110: 85-92.

17. Narvaez-Bravo, C., A. Echeverry, M.F. Miller, A. Rodas-Gonzalez, M.T. Brashears, M. Aslam, and **M.M. Brashears**. 2015. Virulence characterization and molecular subtyping of typical and atypical *Escherichia coli* O157:H7 and O157:H(-) isolated from fecal samples and beef carcasses in Mexico. *J Food Prot* 78:264-272.
18. Chaves, B.D., A. Echeverry, M.F. Miller, and **M.M. Brashears**. 2015. Prevalence of molecular markers for Salmonella and Shiga toxigenic *Escherichia coli* (STE) in whole-muscle beef cuts sold at retail markets in Costa Rica. *Food Control* 50:497-501.
19. Liao, Y.-T.; Brooks, J. C.; Martin, J. N.; Echeverry, A.; Loneragan, G. H.; **Brashears, M. M.** 2015. Antimicrobial Interventions for O157:H7 and Non-O157 Shiga Toxin-Producing *Escherichia coli* on Beef Subprimal and Mechanically Tenderized Steaks. *J of Food Prot* 78(3):511-517.
20. Chaves, B. D., Echeverry, A., García, L. G., Brashears, M. T., Miller, M. F., and **Brashears, M. M.** 2015. Seasonal prevalence of potentially positive non-O157 Shiga toxin-producing *Escherichia coli* (STEC) bovine hides and carcasses in Costa Rica. *Meat Sci* 110:196-200.
21. Corliss, B., J.C. Brooks, J.N. Martin, A. Echeverry, A.R. Parks, S. Pokharel, **M.M. Brashears**. 2015. The influence of beef quality characteristics on the internalization and thermal susceptibility of Shiga toxin-producing *Escherichia coli* (STEC) in blade-tenderized beef steaks. *Meat Sci* 110:85-92.
22. Narváez-Bravo, C., Echeverry, A., Miller, M. F., Rodas-González, A., Brashears, M. T., Aslam, M., and **Brashears, M. M.** 2015. Virulence Characterization and Molecular Subtyping of Typical and Atypical *Escherichia coli* O157: H7 and O157: H (-) Isolated from Fecal Samples and Beef Carcasses in Mexico. *J Food Prot* 78(2):264-272.
23. Maradiaga, M., Miller, M. F., Thompson, L., Pond, A., Gragg, S. E., Echeverry, A., L.G. Garcia, G.H. Loneragan, and **Brashears, M. M.** 2015. Salmonella in Beef and Produce from Honduras. *J Food Prot* 78(3):498-502.
24. Vipham, J. L., G. H. Loneragan, L. M. Guillen, J. C. Brooks, B. J. Johnson, A. Pond, N. Pond and **M. M. Brashears**. 2015. Reduced Burden of *Salmonella enterica* in Bovine Subiliac Lymph Nodes Associated with Administration of a Direct-fed Microbia. *Zoonoses and Public Health* 62:599–608.
25. Hanlon, K. E., **M.M. Brashears**, J.L. Vipham, L.M. Guillen, T.G. O’Quinn, J.C. Brooks, M.T. Brashears, A. Echeverry, M.M. Miller. 2015. Establishment of Salmonella and *E. coli* O157 prevalence in show goats. *Meat Sci* 101:152-143.

2014

26. Chaves, B.D., M. Maradiaga, M.A. Calle, L. Thompson, S.P. Jackson, T. Jackson, M.F. Miller, L.G. Garcia, A. Echeverry, H. Ruiz, and **M.M. Brashears**. 2014. Evaluation of process control to prevent contamination of beef with non-O157 Shiga toxin-producing *Escherichia coli* (STEC) in U.S. export abattoirs in Honduras and Nicaragua. *J. Meat Sci.* 96(1):489.
27. Guillen, L., Parks, A. Echeverry, A., Chaney, E., Miller, M., and **Brashears, M.** 2014. In-plant Validation of Pet Food Processing for the Elimination of Pathogens. *J Food Prot* 77(Suppl. A):232.

28. Karunasena, E., K. McMahon, D. Chung, and **M.M. Brashears**. 2014. Host response to the pathogen *Mycobacterium avium* subspecies paratuberculosis and beneficial microbes are directed through host sex-specificity. *Appl. Environ. Microbiol.* 80(15):481-4490.
29. Karunasena, E., K. McMahon, P. Kurkure, and **M.M. Brashears**. 2014. A comparison of cell mediators and serum cytokines transcript expression between male and female mice infected with *Mycobacterium avium* subspecies paratuberculosis and/or consuming probiotics. *Pathogens and Disease*, PAD-14-02-0032.
30. Liao, Y.T., G.H. Loneragan, J.C. Brooks, A. Echeverry, M.F. Miller, and **M.M. Brashears**. 2014. Establishment of non-O157 Shiga Toxin-Producing *Escherichia coli* (STEC) baseline of retail ground beef in the United States. *J. Meat Sci.* 96(1):484.
31. Morales, Sarahi, Sara Trojan, Alejandro Echeverry, **Mindy M. Brashears**, and M. Todd Brashears. 2014. An Evaluation of the Needs of Stakeholders within the Bahamian Food Production - Consumption Continuum. *Journal of International Agricultural and Extension Education.* 21(2) Summer:22-24 doi:5191/jiaee.2014.21207
32. Ortega, K., Vipham, J., Guillen, L., Echeverry, A., Bugarel, M., and **Brashears, M.** 2014. Prevalence of *Campylobacter* in Retail Ground Beef and Poultry during Spring in Lubbock, Texas. *J Food Prot* 77(Suppl. A):210.
33. Parks, A.; Echeverry, A., Fermin, K., Miller, M., **Brashears, M.** 2014. In-plant Validation of Lactic Acid Spray as an Antimicrobial Treatment for Carcasses, Subprimals, and Beef Trim. *J Food Prot* 77(Suppl. A):209
34. Pond, N., Guillen, L., Echeverry, E., J. Brooks, C., Loneragan, G., **Brashears, M.**, and Nightingale, K. 2014. Inhibition of *Salmonella* in Feces and Soil from the Feedlot Environment Treated with *Lactobacillus acidophilus* NP51. *J Food Prot* 77(Suppl. A):215.
35. Rogers, H.B, J.C. Brooks, J.N. Martin, A. Tittor, M.F. Miller, and **M.M. Brashears**. 2014. The impact of packaging system and temperature abuse on the shelf life characteristics of ground beef. *J. Meat Sci.* 97(1):1-10.
36. Tapp, N., S.E. Gragg, J. C.Brooks, M.F. Miller, and **M.M. Brashears**. 2014. Reduction of *Escherichia coli* O157:H7 and *Salmonella* after application of various sanitizing treatments to harvesting knives. *J. Food Prot.* 76(2): 200-204.
37. Ruiz, H., M.F. Miller, L.D. Thompson, L.G. Garcia, J.C. Brooks, G.H. Loneragan, A. Echeverry, **M.M. Brashears**, and G.O. Cervera. 2014. *Salmonella* presence in lymph nodes and tonsils of swine harvested in Cancun and Merida, Mexico. *J. Meat Sci.* 96(1):488
38. Trojan, S., Brashears, T. Echeverry, A. and **Brashears, M.M.** 2014. Identification of barriers of Bahamian agriculture production: an assessment of stakeholder needs. *J. Anim. Sci.* Vol. 92, E-Suppl. 2// *J. Dairy Science*, Vol. 97. E- Suppl. 1, Page 200
39. Veluz, G.A., S. Pitchiah, **M.M. Brashears**, and C.Z. Alvarado. 2014. Efficacy of Quaternary Ammonium Compounds on Different Conveyor Chips Contaminated with Poultry Rinsate. *J. Food Prot.* 77(1):384-388.

2013

40. Capper, J.L., L. Berger, **M.M. Brashears**, H.H. Jensen, T.G. Field, J. Pettigrew, J.M. Wilkinson, and A.D. Scarfe. 2013. Animal Feed vs. Human Food: Challenges and Opportunities in Sustaining Animal Agriculture Toward 2050. *CAST Issue Paper Number 35*, September 2013.
41. Chancey, C., J Brooks, J. Martin, A. Echeverry, S. Jackson, L. Thompson, and **M.M. Brashears**. 2013. Survivability of Escherichia coli O157:H7 in needle-tenderized beef steaks subjected to lactic acid application and cooking under simulated industry conditions. *J. Food Protection*. 76(10): 1778-1783.
42. Chaves, B.D., M.F. Miller, M. Maradiaga, M.A. Calle, L. Thompson, S.P. Jackson, T. Jackson, L.G. Garcia, A. Echeverry, H. Ruiz, and **M.M. Brashears**. 2013. Evaluation of process control to prevent contamination of beef with non-O157 Shiga toxin-producing Escherichia coli (STEC) in U.S. export abattoirs in Honduras and Nicaragua. *Food Prot Trends*, 33(4):224–230.
43. Gragg, S.E., G.H. Loneragan, **M.M. Brashears**, T.M. Arthur, J.M. Bosilevac, N. Kalchayanand, R. Wang, J.W. Schmidt, J.C. Brooks, S.D. Shackelford, T.L. Wheeler, T.R. Brown, T.S. Edrington, and D.M. Brichta-Harhay. 2013. Cross-sectional Study Examining Salmonella enterica Carriage in Subiliac Lymph Nodes of Cull and Feedlot Cattle at Harvest. *Foodborne Pathogens and Disease*. 10(4):368-374.
44. Gragg, S.E., G.H. Loneragan, K.K. Nightingale, D.M. Brichta-Harhay, H. Ruiz, J.R. Elder, L.G. Garcia, M.F. Miller, A. Echeverry, R.G. Ramírez Porras, and **M.M. Brashears**. 2013. Substantial Within-Animal Diversity of Salmonella Recovered from Lymph Nodes, Feces and Hides of Cattle at Slaughter. *Appl. Environ. Microbiol.* Vol. 79(15):4744-4750.
45. Karunasena, E., P.C. Kurkure, R.D. Lackey, K.W. McMahon, E.P. Kiernan, S. Graham, M.S. Alabady, and **M.M. Brashears**. 2013. Effects of the probiotic Lactobacillus animalis in murine Mycobacterium avium subspecies paratuberculosis infection. *BMC Microbiology*.
46. Narvaez-Bravo, C., M.F. Miller, T. Jackson, S. Jackson, A. Rodas-Gonzalez, K. Pond, A. Echeverry, and **M.M. Brashears**. 2013. Salmonella and Escherichia coli O157:H7 Prevalence in Cattle and on Carcasses in a Vertically Integrated Feedlot and Harvest Plant in Mexico. *J. Food Prot.*, 76(5):786–795.
47. Porter, H., Brashears, T., **Brashears, M.**, Irlbeck, E., Newsome, S., Winterholler-Trojan, S., Echeverry, A., McKenney, C., Loneragan, S. 2013. Determining the problems, impacts and potential solutions for the agricultural industry of Belize: A needs assessment. *J. of International Agricultural and Extension Education*. 20(2):122-124.
48. Salud Rubio Lozano, M., J. Fernando Martínez Bruno, R. Hernández Castro, C. Bonilla Contreras, R. Danilo Méndez Medina, J. Fernando Núñez Espinosa, A. Echeverry, and **M.M. Brashears**. 2013. Detection of Listeria monocytogenes, Salmonella and Yersinia enterocolitica in beef at points of sale in Mexico. *Revista Mexicana de Ciencias Pecuarias*. 4 (1):107-115.
49. Zhang, Q., B. Yang, **M.M. Brashears**, Z. Yu, N. Lui, and Y. Li, 2013. Influence of casein hydrolysates on exopolysaccharide synthesis by S. thermophilus and L. delbrueckii ssp. bulgaricus. *J Sci Food Agric*. doi: 10.1002/jsfa.6420. [Epub ahead of print]

50. Consortium of Food Process Validation Experts, including **M.M. Brashears**. 2013. Validation of Antimicrobial Interventions for Small and Very Small Processors: A How-to Guide to Develop and Conduct Validations. *Food Prot. Trends*. 33(2).

2012

51. **Brashears, M.M.**, A.J. Garmyn, J.C. Brooks, D. Harris, G. Loneragan, A. Echeverry, T.E. Jackson, J.M. Mehaffey, and M.F. Miller. 2012. Microbial quality of condensation in fresh and ready-to-eat processing facilities. *J. Meat Sci.* 90(3):728-732.
52. Brashears, M.T., J. Zavaleta, L. Lemons, and **M.M. Brashears**. 2012. Food Safety Climate of Municipal, Private and Government Regulated Slaughter Plants in Mexico. *Journal of International Agricultural and Extension Education*, 19(2), 183-185.
53. Carroll, C.D., C.Z Alvarado, **M.M. Brashears**, L. Thompson, and Boyce, J. 2012. Marination of Turkey Breast Fillets to Control the Growth of *Listeria Monocytogenes* and Improve Meat Quality in Deli Loaves. *J. Dairy Sci.*, 86, 150-155.
54. Narvaez-Bravo, C., M.F. Miller, A. Echeverry, K. Pond, and **M.M. Brashears**. 2012. Salmonella and *E. coli* O157:H7 prevalence in cattle and on carcasses in a vertically integrated feedlot and harvest plant in Mexico. *J. Food Prot.* JFP-12-079R2.
55. Harris, D., **M.M. Brashears**, A.J. Garmyn, J.C. Brooks, and M.F. Miller. 2012. Microbiological and organoleptic characteristics of beef trim and ground beef treated with acetic acid, lactic acid, acidified sodium chlorite, or sterile water in a simulated commercial processing environment to reduce *Escherichia coli* O157:H7 and Salmonella. *Meat Sci.* 90(3):783-788.
56. Hoyle Parks, A.R., **M.M. Brashears**, J.N. Martin, W.D. Woerner, L.D. Thompson, and J.C. Brooks. 2012. Spoilage characteristics of ground beef with added lactic acid bacteria and rosemary oleoresin packaged in a modified atmosphere package and displayed at abusive temperatures. *J. Animal Sci.* 90(6):2054-2060.
57. Hoyle Parks, A.R., **M.M. Brashears**, J.N. Martin, W.D. Woerner, L.D. Thompson, and J.C. Brooks. 2012. Spoilage characteristics of traditionally packaged ground beef with added lactic acid bacteria displayed at abusive temperatures. *J. Animal Sci.*; 90(2):642-648.
58. Hoyle Parks, A.R., **M.M. Brashears**, J.N. Martin, W.D. Woerner, L.D. Thompson, and J.C. Brooks. 2012. Shelf life and stability traits of traditionally and modified atmosphere packaged ground beef patties treated with lactic acid bacteria, rosemary oleoresin, or both prior to retail display. *J. Meat Sci.* 90:20-27.
59. Loneragan, G.H., D.U. Thomson, R.M. McCarthy, H.E. Webb, A.E. Daniels, T.S. Edrington, D. J. Nisbet, S.J. Trojan, S.C. Rankin, and **M.M. Brashears**. 2012. Salmonella Diversity and Burden in Cows on and Culled from Dairy Farms in the Texas High Plains. *Foodborne Pathogens and Disease*. 9(6):549-555.
60. Vipham, J.L., **M.M. Brashears**, G.H. Loneragan, A. Echeverry, J.C. Brooks, W.E. Chaney, and M.F. Miller. 2012. Salmonella and *Campylobacter* Baseline in Retail Ground Beef and Whole-Muscle Cuts Purchased during 2010 in the United States. *J Food Protect.* 75(12):2110-2115.

61. Wolf, M.J., M.F. Miller, A.R. Parks, G.H. Loneragan, A.J. Garmyn, L.D. Thompson, A. Echeverry, and **M.M. Brashears**. 2012. Validation Comparing the Effectiveness of a Lactic Acid Dip with a Lactic Acid Spray for Reducing Escherichia coli O157:H7, Salmonella, and Non-O157 Shiga Toxigenic Escherichia coli on Beef Trim and Ground Beef. *J Food Protect.* 75(11):1968-1973.
62. Zhang, Q., Z. Yu, **M.M. Brashears**, J. Ren, Y. Li, M. Zhao, Mouming. 2012. Effect of ultrafiltered fractions from casein on lactic acid biosynthesis and enzymes activity in yoghurt starter cultures. *Intl J. of Food Science and Technology*.

2011

63. Brown, A., J.C. Brooks, E. Karunasena, A. Echeverry, A. Laury, and **M.M. Brashears**. 2011. Inhibition of Escherichia coli O157:H7 and Clostridium sporogenes in Spinach Packaged in Modified Atmospheres After Treatment with Chlorine and Lactic Acid Bacteria. *J. Food Sci.* 76(6):427-432.
64. Dow, A., C. Alvarado, and **M.M. Brashears**. 2011. Reduction of Inoculated Salmonella Cocktail in Ground Turkey and Turkey Breasts Using Lactobacillus-base Intervention. *J. Poultry Sci.* 90(4):876-879.
65. Hoyle Parks, A.R., **M.M. Brashears**, J.N. Martin, W.D. Woerner, L.D. Thompson, and J.C. Brooks. 2011. Shelf life and stability traits of traditionally and modified atmosphere packaged ground beef patties treated with lactic acid bacteria, rosemary oleoresin, or both prior to retail display. *J. Meat Sci.* 90(1):20-27.
66. Rekow C.L., **M.M. Brashears**, J.C. Brooks, G.H. Loneragan, S.E. Gragg, and M.F. Miller. 2011. Implementation of targeted interventions to control Escherichia coli O157:H7 in a commercial abattoir. *J. Meat Sci.* 87(4):361-365.
67. Rodas-González, A., C. Narváez-Bravo, **M.M. Brashears**, H.B. Rogers, J.L. Tedford, G.O. Clark, J.C. Brooks, B.J. Johnson, R.J. Rathmann, and M.F. Miller. 2011. Evaluation of the Storage Life of Vacuum Packaged Australian beef. *J. Meat Sci.* 88(1):128-138.
68. Tittor, A.W., M.G. Tittor, **M.M. Brashears**, J.C. Brooks, A.J. Garmyn, and M.F. Miller. 2011. Effects of Simulated Dry and Wet Chilling and Aging of Beef Fat and Lean Tissues on the Reduction of Escherichia coli O157:H7 and Salmonella. *J. Food Prot.* 74(2):289-293.
69. Yanamala, S., M.F. Miller, G.H. Loneragan, S.E. Gragg, and **M.M. Brashears**. 2011. Potential for Microbial Contamination of Spinach through Feedyard Air/Dust Growing in Close Proximity to Cattle Feedyard Operations. *J. Food Safety.* 31(4):525-529.

2010

70. Echeverry, A., J.C. Brooks, M.F. Miller, J. A. Collins, G.H. Loneragan, and **M.M. Brashears**. 2010. Validation Of Lactic Acid Bacteria, Lactic Acid, And Acidified Sodium Chlorite As Decontaminating Interventions To Control Escherichia coli O157:H7 And Salmonella Typhimurium DT 104 In Mechanically Tenderized And Brine Enhanced (Non - Intact) Beef At The Purveyor. *J. Food Prot.* 73(12):2169-2179.
71. Gragg, S.E. and **M.M. Brashears**. 2010. Reduction of Escherichia coli O157:H7 in Fresh Spinach Using Lactic Acid Bacteria and Chlorine as a Multihurdle Intervention. *J. Food Prot.* 73(2):358-361.

72. Gragg, S.E. and **M.M. Brashears**. 2010. Reduction of Escherichia coli O157:H7 in Fresh Spinach Using Bovamine Meat Cultures as a Post-Harvest Intervention and its impact on Sensory Properties. *Food Prot. Trends*. 30(2):72-77.
73. Hughes, M.K., S. Yanamala, M. San Francisco, G.H. Loneragan, M.F. Miller, and **M.M. Brashears**. 2010. Reduction of Multidrug-Resistant and Drug-Susceptible Salmonella in Ground Beef and Freshly Harvested Beef Briskets After Exposure to Commonly Used Industry Antimicrobial Interventions. *J Food Prot.* 73(7):1231-1237.
74. Randhawa, S., **M.M. Brashears**, K.W. McMahon, M. Fokar, M., and E. Karunasena. 2010. Comparison of Phenotypic and Genotypic Methods Used for the Species Identification of Lactobacillus NP51 and Development of a Strain-Specific PCR Assay. *Probiotics and Antimicrobial Proteins*. 2(4):274-283

2009

75. Echeverry, A., J.C. Brooks, M.F. Miller, J.A. Collins, G.H. Loneragan, and **M.M. Brashears**. 2009. Validation of Intervention Strategies to Control Escherichia coli O157:H7 and Salmonella Typhimurium DT 104 in Mechanically Tenderized and Brine Enhanced Beef. *J. Food Prot.* Vol. 72 (8):1616-1623.
76. Fluckey, W., G.H. Loneragan, R. Warner, A. Echeverry, and **M.M. Brashears**. 2009. Diversity and Susceptibility of Enterococcus Isolated from Cattle before and after Harvest. *J. Food Prot.* 72(4):766-774.
77. Hoyle, A.R., J.C. Brooks, L.D. Thompson, W. Palmore, T.P. Stephens, and **M.M. Brashears**. 2009. Spoilage and Safety Characteristics of Ground Beef Treated with Lactic Acid Bacteria. *J. Food Prot.* 72(11):2278-2283.
78. Irlbeck, E.G., C. Akers, and **M.M. Brashears**. 2009. A Content Analysis of Food Safety Measures on Television's Food Network. *Food Prot Trends*. 29(1):16-20.
79. Lakins, D., C.D. Alvarado, A.M. Luna, S.F. O'Keef, J.B. Boyce, L.D. Thompson, M.T. Brashears, J.C. Brooks, and **M.M. Brashears**. 2009. Comparison of Quality Attributes of Shell Eggs Subjected to Directional Microwave Technology. *J. Poultry Sci.* 88(6):1257-1265.
80. Laury, A., M. Alvarado, G. Nace, C. Alvarado, J.C. Brooks, A. Echeverry, and **M.M. Brashears**. 2009. Validation of a Lactic Acid and Citric Acid-Based Antimicrobial Product for the Reduction of Escherichia coli O157:H7 and Salmonella on Beef Tips and Whole Chicken Carcasses. *J. Food Prot.* 72(10):2208-2211.
81. Lee, M.S., S.L. Krumpelman, J.K. Apple, J.W.S. Yancey, E.B. Kegley, M.G. Johnson, **M.M. Brashears**, and T.P. Stephens. 2009. In Vitro and In Vivo Investigations of Antimicrobial Treatments to Reduce Escherichia coli O157:H7 in Cattle Manure. *Prof Anim Sci.* 25(1):49-59.
82. Lloyd, T.; C.Z. Alvarado; **M.M. Brashears**, L.D. Thompson; S.R. McKee, and M. Berrang. 2009. Control of Listeria monocytogenes in turkey deli loaves using organic acids as formulation ingredients. *J. Poultry Sci.* 88(10):2235-2239.

2008

83. Brooks, J.C., M. Alvarado, T.P. Stephens, J.D. Kellermeier, A.W. Tittor, M.F. Miller, and **M.M. Brashears**. 2008. Spoilage and Safety Characteristics of Ground Beef Packaged in Traditional and Modified Atmosphere Packages. *J. Food Prot.* 71(2):293-301.
84. Kaur, A., P.S. Takhar, D.M. Smith, J.E. Mann, and **M.M. Brashears**. 2008. Fractional Differential Equations Based Modeling of Microbial Survival and Growth Curves: Model Development and Experimental Validation. *J. Food Sci.* 73(8):403-414.
85. Kunze, D.J., G.H. Loneragan, T. M. Platt, M.F. Miller, T. E. Besser, M. Koohmaraie, T. P. Stephens, C. H. Parsons, and **M.M. Brashears**. 2008. Salmonella enterica Burden in Harvest-Ready Cattle Populations of the Texas High Plains. *Appl Environ Microbiol.* 74(2):345-351.
86. Lakins, D., A. Echeverry, C.Z. Alvarado, J.C. Brooks, M.T. Brashears, and **M.M. Brashears**. 2008. Quality and Mold Growth on White Enriched Bread for Military Rations Following Directional Microwave Treatment. *J. Food Sci.* 73(3):99-103.
87. Lakins, D., C.Z. Alvarado, L.D. Thompson, M.T. Brashears, J.C. Brooks, and **M.M. Brashears**. 2008. Reduction of Salmonella Enteritidis in Shell Eggs Using Directional Microwave Technology. *J. Poultry Sci.* 87(5):985-991.
88. Miller, M.F., G.H. Loneragan, D.D. Harris, K.D. Adams, J.C. Brooks, and **M.M. Brashears**. 2008. Environmental Dust Exposure as a Factor Contributing to an Increase in Escherichia coli O157 and Salmonella Populations on Cattle Hides in Feedyards. *J. Food Prot.* 71(10):2078-2081.
89. Platt, T.M., G.H. Loneragan, H.M. Scott, B. Norby, D.U. Thomson, M.S. Brown, S.E. Ives, and **M.M. Brashears**. 2008. Antimicrobial susceptibility of enteric bacteria recovered from feedlot cattle administered chlortetracycline in feed. *Am. J. Vet. Res.* 69(8):988-996.
90. Vasconcelos, J.T., N.A. Elam, **M.M. Brashears**, and M.L. Galyean. 2008. Effects of increasing dose of live cultures of Lactobacillus acidophilus (Strain NP 51) combined with a single dose of Propionibacterium freudenreichii (Strain NP 24) on performance and carcass characteristics of finishing beef steers. *J. Animal Sci.* 86(3):756-762.

2007

91. **Brashears, M.M.**, J.C. Brooks, and M.F. Miller. 2007. Characterizing the Safety and Quality of Fresh Beef Cuts Subjected to Deep Muscle Marination. *J. of Animal Science, Supplemental* 1:85, 200.
92. Brooks, J.C., **M.M. Brashears**, and M.F. Miller. 2007. Is There a Link Between Food Safety and Food Spoilage. *J. of Animal Science, Supplemental* 1:85, 137.
93. Dowd S.E., K. Killinger-Mann, J. Blanton, M. San Francisco, and **M.M. Brashears**. 2007. Positive Adaptive State: Microarray Evaluation of Gene Expression in Salmonella enterica Typhimurium Exposed to Nalidixic Acid. *Foodborne Pathog Dis.* 4(2):187-200.
94. Fluckey, W.M., G.H. Loneragan, R. Warner, and **M.M. Brashears**. 2007. Antimicrobial Drug Resistance in Salmonella and Escherichia coli Isolates from Cattle Feces, Hides, and Carcasses. *J. Food Prot.* 70(3):551-556.

95. Lopez, A.M., G. Poullier, A.M. Luna, C.Z. Alvarado, L.D. Thompson, **M.M. Brashears**, and J.C. Brooks. 2007. Carbon Monoxide in MAP Chicken Breast Fillets and Drums as a Food Safety Intervention to Reduce Pathogen Loads and Extend Shelf-Life. *J. Anim. Sci., Suppl.* 1, 85:424.
96. Lowrance, T.C., G.H. Loneragan, D.J. Kunze, T.M. Platt, S.E. Ives, H.M. Scott, B. Norby, A. Echeverry, and **M.M. Brashears**. 2007. Changes in antimicrobial susceptibility in a population of *Escherichia coli* isolated from feedlot cattle administered ceftiofur crystalline-free acid. *Am. J. Vet. Res.* 68(5):501-507.
97. Mann, J.E. and **M.M. Brashears**. 2007. Contribution of Humidity to the Lethality of Surface-Attached Heat-Resistant *Salmonella* during the Thermal Processing of Cooked Ready-to-Eat Roast Beef. *J. Food Prot.* 70(3):762-765.
98. Reicks, A., **M.M. Brashears**, K.D. Adams, J.C. Brooks, J.R. Blanton, and M.F. Miller. 2007. Impact of Transportation of Feedlot Cattle to the Harvest Facility on the Prevalence of *Escherichia coli* O157:H7, *Salmonella*, and Total Aerobic Microorganisms on Hides. *J. Food Prot.* 70(1):17-21.
99. Stephens, T. P., G.H. Loneragan, E. Karunasena, and **M.M. Brashears**. 2007. Reduction of *Escherichia coli* O157 and *Salmonella* in Feces and on Hides of Feedlot Cattle Using Various Doses of a Direct-Fed Microbial. *J. Food Prot.* 70(10):2386-2391.
100. Stephens, T.P., G.H. Loneragan, T.W. Thompson, A. Sridhara, L.A. Branham, S. Pitchiah, and **M.M. Brashears**. 2007. Distribution of *Escherichia coli* O157 and *Salmonella* on Hide Surfaces, the Oral Cavity, and in Feces of Feedlot Cattle. *J. Food Prot.* 70(6):1346-1349.
101. Stephens, T.P., G.H. Loneragan, W.E. Chaney, L.A. Branham, and **M.M. Brashears**. 2007. Development and Validation of a Most-Probable-Number Immunomagnetic Separation Methodology of Enumerating *Escherichia coli* O157 in Cattle Feces. *J. Food Prot.* 70(5):1072-1075.
102. Stephens, T.P., G.H. Loneragan, L.M. Chichester, and **M.M. Brashears**. 2007. Prevalence and Enumeration of *Escherichia coli* O157 in Steers Receiving Various Strains of Lactobacillus-Based Direct-Fed Microbials. *J. Food Prot.* 70(5):1252-1255.
103. Thompson, T.W., T.P. Stephens, G.H. Loneragan, M.F. Miller, and **M.M. Brashears**. 2007. Comparison of Rapid Enzyme-Linked Immunosorbent Assay and Immunomagnetic Separation Methods for Detection of *Escherichia coli* O157 in Fecal, Hide, Carcass, and Ground Beef Samples. *J. Food Prot.* 70(10):2230-2234.

2006

104. Carroll, C.D., C.Z. Alvarado, **M.M. Brashears**, L.D. Thompson, and J. Boyce. 2006. Marination of Turkey Breast Fillets to Control the Growth of *Listeria Monocytogenes* and Improve Meat Quality in Deli Loaves. *J. Poultry Sci.* 86(1): 150-155.
105. Cranston, J.J., J.D. Rivera, M.L. Galyean, **M.M. Brashears**, J.C. Brooks, C.E. Markham, L.J. McBeth, and C.R. Krehbiel. 2006. Effects of feeding whole cottonseed and cottonseed products on performance and carcass characteristics of finishing beef cattle. *J. Animal Sci.* 84(8):2186-2199.

106. Echeverry, A., G.H. Loneragan, and **M.M. Brashears**. 2006. Survival of *Escherichia coli* O157:H7 in Bovine Feces over Time under Various Temperature Conditions. *J. Food Prot.* 69(12):2851-2855.
107. Harris, K., M.F. Miller, G.H. Loneragan, and **M.M. Brashears**. 2006. Validation of the Use of Organic Acids and Acidified Sodium Chlorite To Reduce *Escherichia coli* O157 and *Salmonella* Typhimurium in Beef Trim and Ground Beef in a Simulated Processing Environment. *J. Food Prot.* 69(8):1802-1807.
108. Mann, J.E. and **M.M. Brashears**. 2006. Validation of Time and Temperature Values as Critical Limits for the Control of *Escherichia coli* O157:H7 during the Production of Fresh Ground Beef. *J. Food Prot.* 69(8):1978-1982.
109. Thompson, T.W., J.R. Blanton, J.E. Mann, **M.M. Brashears**, and C.Z. Alvarado. 2006. Reduction of *Campylobacter* spp on poultry carcasses using various interventions under simulated industry conditions. *Poultry Science Assoc.* 85:98 (Suppl. 1)

2005

110. Echeverry, A., G.H. Loneragan, B. A. Wagner, and **M.M. Brashears**. 2005. Effect of Intensity of Fecal Pat Sampling on Estimates of *Escherichia coli* O157 Prevalence. *Am. J. Vet. Res.* 66(12):2023-2027.
111. Loneragan, G.H. and **M.M. Brashears**. 2005. Effects of Using Retention-Pond Water for Dust Abatement on Performance of Feedlot Steers and Carriage of *Escherichia coli* O157 and *Salmonella* spp. *J. Am. Vet. Med. Assoc.* 226(8):1378-1383.
112. Loneragan, G.H. and **M.M. Brashears**. 2005. Pre-harvest Interventions to reduce carriage of *E. coli* O157 by harvest-ready feedlot cattle. *J. Meat Sci.* 71(1):72-78.
113. Smith, L., J.E. Mann, K. Harris, M.F. Miller, and **M.M. Brashears**. 2005. Reduction of *Escherichia coli* O157:H7 and *Salmonella* in Ground Beef Using Lactic Acid Bacteria and the Impact on Sensory Properties. *J. Food Prot.* 68(8):1587-1592.
114. Younts-Dahl, S.M., G.D. Osborn, M.L. Galyean, J.D. Rivera, G.H. Loneragan, and **M.M. Brashears**. 2005. Reduction of *Escherichia coli* O157 in Finishing Beef Cattle by Various Doses of *Lactobacillus acidophilus* in Direct-Fed Microbials. *J. Food Prot.* 68(1):6-10.

2004

115. Dahl, K., C. Lyford, and **M.M. Brashears**. 2004. The Cost and Effectiveness of Pre-harvest Interventions in Beef Cattle. *Texas Journal of Agriculture and Natural Resources.* 17 (2005):97-110.
116. Mann, J.E., L. Smith and **M.M. Brashears**. 2004. Validation of Time and Temperature Values as Critical Limits for *Salmonella* and Background Flora Growth During the Production of Fresh Ground and Boneless Pork Products. *J. Food Prot.* 67(7):1389-1393.
117. Wilderdyke, M.R., D.A. Smith, and **M.M. Brashears**. 2004. Isolation, Identification, and Selection of Lactic Acid Bacteria from Alfalfa sprouts for Competitive Inhibition of Foodborne pathogens. *J. Food Prot.* 67(5):947-951.

118. Younts-Dahl, S.M., M.L. Galyean, G.H. Loneragan, N. Elam, **M.M. Brashears**. 2004. Dietary Supplementation with *Lactobacillus* and *Propionibacterium*-Based Direct-Fed Microbials and Prevalence of *Escherichia coli* O157 in Beef Feedlot Cattle and on Hides at Harvest. *J. Food Prot.* 67(5):889-893.

2003

119. **Brashears, M.M.**, M.L. Galyean, G.H. Loneragan, J.E. Mann, and K. Killinger-Mann. 2003. Prevalence of *Escherichia coli* O157:H7 and Performance by Beef Feedlot Cattle Given *Lactobacillus* Direct-Fed Microbials. *J. Food Prot.* 66(5):748-754.
120. **Brashears, M.M.**, D. Jaroni, and J. Trimble. 2003. Isolation, Selection, and Characterization of Lactic Acid Bacteria for a Competitive Exclusion Product to Reduce Shedding of *Escherichia coli* O157:H7 in Cattle. *Journal Food Prot.* 66(3):355-363.
121. Elam, N.A., J.F. Gleghorn, J.D. Rivera, M.L. Galyean, P.J. Defoor, **M.M. Brashears**, and S.M. Younts-Dahl. 2003. Effects of Live Cultures of *Lactobacillus acidophilus* (Strains NP45 and NP51) and *Propionibacterium freudenreichii* on Performance, Carcass and Intestinal Characteristics, and *Escherichia coli* O157:H7 Shedding of Finishing Beef Steers. *J. Anim. Sci.* 81(11):2686-2698.
122. Fluckey, W.M., M.X. Sanchez, S.R. McKee, D. Smith, E. Pendleton, and **M.M. Brashears**. 2003. Establishment of a Microbiological Profile for an Air-Chilling Poultry Operation in the United States. *J. Food Prot.* 66(2):272-279.

2002

123. Amezcuita, A. and **M.M. Brashears**. 2002. Competitive Inhibition of *Listeria monocytogenes* in Ready-to-Eat Meat Products by Lactic Acid Bacteria. *J. Food Prot.* 65(2):316-325.
124. **Brashears, M.M.**, D. Burson, L. Boyle, F. Aramouni, J. Mann and M. Murphy. 2002. Development and Evaluation of an Advanced HACCP Workshop for Meat Processors. *Dairy Food Environ. Sanit.* 22(12):976-984.
125. Sanchez, M.X., W.M. Fluckey, **M.M. Brashears**, and S.R. McKee. 2002. Microbial Profile and Antibiotic Susceptibility of *Campylobacter* spp. and *Salmonella* spp. in Broilers Processed in Air-Chill and Immersion-Chill Environments. *J. Food Prot.* 65(6):948-956.

2001

126. **Brashears, M.M.**, A. Amezcuita, and J. Stratton. 2001. Validation of Methods Used to Recover *Escherichia coli* O157:H7 and *Salmonella* spp. Subjected to Stress Conditions. *J. Food Prot.* 64(10):1466-1471.
127. **Brashears, M.M.**, D.E. Burson, E.S. Dormedy, L. Vavak, S.R. McKee, W. Fluckey, and M. Sanchez. 2001. HACCP Implementation and Validation in Small and Very Small Meat and Poultry Processing Plants in Nebraska. *Dairy Food Environ. Sanit.* 21: 20-28.
128. **Brashears, M.M.**, E.S. Dormedy, J.E. Mann, and D.E. Burson. 2001. Validation and Optimization of Chilling and Holding Temperature Parameters as Critical Control Points in Raw Meat and Poultry Processing Establishments. *Dairy Food Environ. Sanit.* 22(4):246-251.

129. Soylemez, G., D. Smith, S. Cuppett, and **M.M Brashears**. 2001. Packaging Modifications of Alfalfa Sprouts Produced from Chlorine Treated and Untreated Seeds. *J. Food Sci.* 66(1):153-157.

2000

130. Dormedy, E.S., **M.M. Brashears**, C.N. Cutter, and D.E. Burson. 2000. Validation of Acid Washes as Critical Control Points in Hazard Analysis and Critical Control Point Systems. *J. Food Prot.* 63(12):1676-1680.
131. Jaroni, D. and **M.M. Brashears**. 2000. Production of Hydrogen Peroxide by *L. lactis* as Influenced by Media Used for Propagation of Cells. *J. Food Sci.* 65(6):1033-1036.

1999

132. **Brashears, M.M.** and W.A. Durre. 1999. Antagonistic Action of *Lactobacillus lactis* toward *Salmonella* spp. and *Escherichia coli* O157:H7 during Growth and Refrigerated Storage. *J. Food Prot.* 62(11): 1336-1340.

1998

133. **Brashears, M.M.**, S.E. Gilliland and L.M. Buck. 1998. Bile Salt Deconjugation and Cholesterol Removal from Media by *Lactobacillus acidophilus* and *Lactobacillus casei*. *J. Dairy Sci.* 81(8):2103-2110.
134. Brashears, M.M., S.S. Reilly, and S.E. Gilliland. 1998. Antimicrobial Drug Resistance in *Salmonella* and *Escherichia coli* O157:H7 on Refrigerated Raw Chicken Meat. *J. Food Prot.* 61(2):166-170.

1996

135. Nighswonger, B.D., **M.M. Brashears**, and S.E. Gilliland. 1996. Viability of *Lactobacillus acidophilus* and *Lactobacillus casei* in fermented milk products during refrigerated storage. *J. Dairy Sci.* 79(11):212-219.

1995

136. **Brashears, M.M.** and S.E. Gilliland. 1995. Survival During Frozen and Subsequent Refrigerated Storage of *Lactobacillus acidophilus* Cells as Influenced by Growth Phase. *J. Dairy Sci.* 78:2326-2335.

Journal Articles In Review

1. Chaves, B.D., **M.M. Brashears**, and K.K. Nightingale. Applications and Safety Considerations of *Lactobacillus salivarius* as a Probiotic in Animal and Human Health. [Submitted with corrections]
2. D. Ayala, K.K. Nightingale, and **M.M. Brashears**. 2016. Molecular Characterization of *Salmonella* from Beef Carcasses and Fecal samples from a Slaughter Facility in Mexico. *Foodborne Pathog Dis* (In Review)
3. A. J. Thompson, M. A. Calle, A. R. Pond, W. M. Kreikemeier, R. A. McDonald, E. G. Johnson, M. D. Edmonds, G. H. Loneragan, **M. M. Brashears**, and B. J. Johnson. Effect of direct-fed microbial supplementation on *Escherichia coli* fecal shedding, live performance, and carcass characteristics in feedlot steers.

4. Chaves, B.D., S. Pokharel, M.F. Miller, A. Echeverry, J.L. Vipham, and **M.M. Brashears**. Effect of Fat Content on the Microbiological Profiles of Beef Trimmings. *Food Prot Trends* (In Review)
5. Bueso, M.E., T.G. O'Quinn, A.J. Garmyn, J.C. Brooks, **M.M Brashears**, and M. F. Miller. Consumer and trained panel evaluation of beef strip steaks of varying marbling and enhancement levels cooked to three degrees of doneness. *Meat Sci* (In Review)
6. Chaney, W.E., G.H. Loneragan, R. McCarthy, B.J. Johnson, J.C. Brooks, and **M.M. Brashears**. Inclusion of Corn-Based Distillers' Grain in the Diets of Cattle Housed in Commercial Feedlots and its Effect on the Burden of *Escherichia coli* O157 in Cattle Feces. *J Anim Sci* (In Review)
7. Chaves, B.D., A. Echeverry, and **M.M. Brashears**. Systematic Review of the Microbiological Safety Status of Foods at Retail in Costa Rica. *Food Prot Trends* (In Review)
8. Chaves, B.D., M.T. Brashears, and **M.M. Brashears**. HACCP knowledge retention of individuals participating in sequential Introductory and Advanced HACCP training courses in Costa Rica. *J Food Sci* (In Review)
9. Chaves, B.D., S. Pokharel, M.F. Miller, and **M.M. Brashears**. Lactic Acid Effectively Reduces the Concentration of Microbial Indicators on Beef Subprimals during Fabrication. *J Food Prot* (In Review)
10. Chaves, B.D., S. Pokharel, M.F. Miller, and **M.M. Brashears**. Validation of a Lactic Acid Spray as an Effective Antimicrobial Intervention for Beef Variety Meats. *Food Prot Trends* (In Review)
11. Chaves, B.D., S.N. Ward-Motl, A. Echeverry, M.F. Miller, and **M.M. Brashears**. Survey of *Salmonella* in retail beef in Mexico and evaluation of potential antimicrobial interventions at the point of sell. *Food Safety* (In Review)
12. Maradiaga, M., H. Den-Bakker, K.K. Nightingale, and **M.M. Brashears**. Whole-Genome Sequencing Characterization of antimicrobial resistant *Salmonella enterica* isolates associated with cattle at harvest in Mexico.
13. Ramirez-Hernandez, A., B. Inestroza, M.X. Sanchez, A. Echeverry, A. Parks, and **M.M. Brashears**. Thermal Resistance of *Salmonella* in High-Fat Rendering Products. *J Food Sci* (In Review)

Abstracts Presented

2016

Arvelo-Yagua, I., A. Calle, **M.M. Brashears**, K. Hanlon, M. Sanchez-Plata, and A. English. 2016. Efficacy of *Salmonella* Detection in Ground Beef and Cilantro by Five Commercially Available Tests. *J Food Prot* 79 (Suppl): 119.

Arvelo I., Calle A., Hanlon K., Arteaga G., **Brashears M.**, Carpio C., Sanchez-Plata M. X. 2016. Comparison of five *Salmonella* detection methods in ground beef. Beef Industry Safety Summit, Austin, Texas.

- Ayala, D., K.K. Nightingale, and **M.M. Brashears**. 2016. Molecular Characterization of *Salmonella* Isolates from Beef Cattle Lymph Nodes and Feces by Pulsed-Field Electrophoresis. International Association for Food Protection (IAFP) Latin America Symposium. Cancun, Mexico.
- Campos, D., A. Orange, D. Casas, and **M. Brashears**. 2016. Mechanisms of Inhibition of *Salmonella* by Lactic Acid Bacteria Cocktail (NP51, NP28, NP7, NP3). *J Food Prot* 79 (Suppl): 255.
- Castillo, A., D. Campos, J. Franco, and **M. Brashears**. Novel Lactic Acid Bacteria (L14 and L28) as a Biocontrol Agent for Inhibition of *Salmonella* in a Raw Chicken Fat Used as a Dog Food Ingredient. *J Food Prot* 79 (Suppl): 255.
- English, A.R., **M.M. Brashears**, and A. Echeverry. 2016. Preliminary Assessment of Antimicrobial Resistance Profiles in Bacteria Isolated from a Shrimp Production Farm Environment in Honduras. XIII Congreso Latinoamericano de Microbiología E Higiene De Los Alimentos, Medellin, Colombia.
- Franco, J., D. Campos, A. Castillo, and **M. Brashears**. 2016. Comparison of Commercially Available and Novel Lactic Acid Bacteria (L28, FS56) as Bio-Sanitizers to Inhibit *Listeria monocytogenes* on Stainless Steel Surfaces. *J Food Prot* 79 (Suppl): 250.
- Hanlon, K. **M. Brashears**, K. Ortega, and M. Miller. 2016. Study of Hand-washing Methods in Malawi Utilizing Available Water and Resources to Evaluate Aerobic Plate Count, Coliforms and Generic *Escherichia coli* on Human Hands. *J Food Prot* 79 (Suppl): 248.
- Hanlon, K., M. Miller, L. Guillen, A. Echeverry, E. Dormedy, B. Cemo, L. Branham, S. Sanders, and **M. Brashears**. 2016. Presence of *Salmonella*, *Escherichia coli* O157 and *Campylobacter* in Small Ruminants. *J Food Prot* 79 (Suppl): 186.
- Hanlon, K.E., M.F. Miller, L.M. Guillen, A. Echeverry, S. Sanders, L.A. Branham, K.S. Spivey, and **M.M. Brashears**. 2016. Prevalence of *Salmonella* found on the surface of small-ruminant carcasses. *Meat Sci* 112:162.
- Hanlon, K.E., N.C. Hardcastle, A.J. Garmyn, M.E. Bueso, T.L. Opheim, **M.M. Brashears**, and M.F. Miller. 2016. Effect of cattle finishing diet and product enhancement in Honduras to improve consumer eating experience of beef cooked to the traditional well-done degree of doneness. International Association for Food Protection Latin America Conference. Cancun, Mexico.
- Inestroza, B., A. Ramirez, M.X. Sanchez-Plata, A.R. Parks, A. Echeverry, and **M.M. Brashears**. 2016. Thermal inactivation of *Salmonella* spp. in high fat ground beef. *Meat Sci* 112:166.
- Inestroza, B., K. Nightingale, M. Bugarel, M. Miller, and **M. Brashears**. 2016. Organic Acid Treatment of Beef Trim, Combined with Acidified Sodium Chlorite to Reduce *Salmonella* Encased in Lymph Nodes during Grinding. *J Food Prot*
- Inestroza, B., English, A., Miller, M. F., **Brashears, M. M.** Antimicrobial Susceptibility of *Salmonella* Isolates from Beef Cattle in Honduras. International Association for Food Protection (IAFP) Latin America Symposium. Cancun, Mexico.

Inestroza, B., M. Bueso, J. Vipham, M.F. Miller, A. Echeverry, **M. M. Brashears**. Presence of *Salmonella* in Beef cattle during harvesting process in a Honduras Facility. XIII Congreso Latinoamericano de Microbiología E Higiene De Los Alimentos, Medellin, Colombia.

Inestroza, B., M. Bueso, A. Echeverry, M. F. Miller, **M. M. Brashears**. Seguimiento a la Prevalencia de *Salmonella* en Cueros y Canales de Ganado Bovino en Plantas de Sacrificio en Mexico. XIII Congreso Latinoamericano de Microbiología E Higiene De Los Alimentos, Medellin, Colombia.

Maradiaga, M., K.K. Nightingale, H. den Bakker, A. Echeverry, and **M.M. Brashears**. 2016. Phenotypic Characterization of Antimicrobial Resistance in *Salmonella enterica* Isolates Associated with Cattle at Harvest in Mexico. *J Food Prot* 79 (Suppl): 185.

Ortega, K., G. Loneragan, P. Ortega, and **M. Brashears**. 2016. Prevalence of *Salmonella* and Antibiotic-resistant *Campylobacter* in Retail Ground Beef in the United States. *J Food Prot* 79 (Suppl): 221.

Ortega, K.A, G.H. Loneragan, P.M. Ortega, L.S. Guillen, J.L. Vipham, J.C. Brooks, **M.M. Brashears**. 2016. Baseline study for prevalence of resistant and susceptible *Campylobacter* in retail ground beef. *Meat Sci* 162: 164.

Parks, A.R, M.F. Miller, K. Hanlon, S. Pokharel, K. Spivey, and **M.M. Brashears**. 2016. Validation of the efficacy of 4.55% FCC 88 lactic acid and 2.5% lactic acid/acetic acid (50/50) blend on offal meats and carcass surfaces under simulated industry conditions. *Meat Sci* 112: 167.

Parks, A.R., **M.M. Brashears**. 2016. Validation of pathogen destruction in dry pet foods after production and bagging under simulated industry conditions. *Meat Sci* 112: 167.

Pokharel, S, M.F. Miller, A.R. Parks, and **M.M. Brashears**. 2016. The prevalence of *Escherichia coli* O157:H7 and *Salmonella* spp. on beef heads and variety meat. *Meat Sci* 112: 166.

Pokharel, S. B. Chaves, M. Alnajrani, and **M. Brashears**. 2016. Inhibition of *Listeria monocytogenes* on Deli Slicers and Food Contact Surfaces with Lactic Acid Bacteria. *J Food Prot* 79 (Suppl): 250.

Pokharel, S., J.C. Brooks, J.N. Martin, and **M. Brashears**. 2016. Internalization of *Salmonella enterica* Serotype Typhimurium in Beef Products as Influenced by Vacuum Marination and Antimicrobial Interventions. *J Food Prot* 79 (Suppl): 221.

Pokharel, S., M.F. Miller, A.R. Parks, and **M.M. Brashears**. 2016. In-plant validation study to determine the efficacy of lactic acid as an antimicrobial intervention on beef heads and variety meats. *Meat Sci* 112: 167.

Ramirez-Hernandez, A., B. Inestroza, M. Sanchez-Plata, A. Parks, A. Echeverry, and **M.M. Brashears**. 2016. Thermal Inactivation *D* and *z*-Values of *Salmonella* in High-fat Raw Materials for Rendering. *J Food Prot* 79 (Suppl): 104.

Ramirez-Hernandez, A., Orellana, D., Maradiaga, M., **Brashears, M.** Antimicrobial Resistance Patterns of *Salmonella enterica* Isolates Recovered Beef Cattle Presented in Mexico. Latin American Congress of Microbiology and Food Hygiene COLMIC, 2016. Medellin, Colombia.

Ramirez-Hernandez, A., Inestroza, B., Orellana, D., Maradiaga, M., **Brashears, M.** Antimicrobial Resistance Patterns of *Salmonella enterica* Isolates Recovered Beef Cattle Presented in Mexico and Honduras. Latin American Symposium in Food Safety, 2016. Cancun, Mexico.

Vipham, J.L., G.H. Loneragan, L. Guillen, J.C. Brooks, B. Johnson, A. Pond, N. Pond, and **M.M. Brashears.** 2016. Reduced burden of *Salmonella enterica* in bovine subiliac lymph nodes associated with administration of a direct-fed microbial. *Meat Sci* 112: 162.

2015

Ayala, D., K.K. Nightingale, and M.M. Brashears. 2015. Differential Gene Expression of *Lactobacillus animalis* NP51 exposed to different Temperatures. International Association for Food Protection (IAFP) Annual Meeting, Portland, Oregon.

Ayala, D., K.K. Nightingale, and M.M. Brashears. 2015. Global Transcriptome Analysis of *Lactobacillus animalis* NP51 exposed at different Temperatures. International Symposium of Veterinary Epidemiology and Economics (ISVEE) Annual Meeting, Merida, Mexico.

Ayala, D., K.K. Nightingale, M. Miller, A. Echeverry, R. Ramirez-Porras, G. Ordaz, and M.M. Brashears. 2015. *Salmonella* Serotype Discrimination of Beef carcasses, lymph nodes and fecal isolates through Pulsed-Field Electrophoresis. International Symposium of Veterinary Epidemiology and Economics (ISVEE) Annual Meeting, Merida, Mexico.

Calle, M.A., Ramirez-Hernandez, A. Brashears, M. Poster presentation. Antibiotic Resistant *Escherichia coli* O157 isolated from cattle. ISVEE 14 Yucatan 2015, Merida, MX, Nov 2015.

Casas, D., Campos, D., Orange, A., Guillen, L., Zhang, Q., Brashears, MM. 2015. Mechanisms of inhibition of *Listeria monocytogenes* by lactic acid bacteria. Institute of Food Technologist (undergraduate research finalist) Chicago, IL.

Castelli, E., A. Krieg, D. L. Campos, and M. M. Brashears. 2015. Lactic acid bacteria (LAB) affect on mineral and Vitamin C content of fresh strawberries. Abstracts, International Association of Food Protection. Portland, OR.

Fermin, K., D. Stull, A. Neuber, J.C. Brooks and M.M. Brashears. Reduction of *Listeria monocytogenes* on Beef Franks utilizing Targeted Directional Microwave Technology. 2015 Beef Industry Safety Summit, March 3 to 5, Dallas, TX.

Fuentes, J.I., K.E. Hanlon, K.A. Ortega, M.M. Miller, M.M. Brashears. Microbial prevalence found in sheep fecal samples from the Lubbock, Texas area [abstract]. Presented at Texas Tech University Undergraduate Research Competition. March 31, 2015. Lubbock, TX

Hanlon, K.E., M.F. Miller, L.M. Guillen, A. Echeverry, S. Sanders, L. A. Branham, K.S. Spivey, M.M. Brashears. Prevalence of *Salmonella* found on the surface of small-ruminant carcasses [abstract]. In: AMSA Reciprocal Meats Conference (RMC) Proceedings: June 14-17, 2015; Lincoln, NE. Abstract nr 117.

Hanlon, K.E., M.F. Miller, L.M. Guillen, A. Echeverry, S. Sanders, L. A. Branham, K.S. Spivey, M.M. Brashears. Prevalence of *Salmonella* and *Escherichia coli* O157 found in small-ruminants within the United States [abstract]. In: International Association for Food Protection July 25-28, 2015; Portland, OR. Abstract nr 9815.

Hanlon, K.E., M.F. Miller, L.M. Guillen, A. Echeverry, K.S. Spivey, M.M. Brashears. Prevalence of *Salmonella* found in lymph nodes of sheep and goats within the United States [abstract]. In: ISVEE Veterinary Epidemiology & Economics November 3-7, 2015; Merida, Yucatan, Mexico. Abstract nr P087.

Ortega, K., Loneragan, G., Vipham, J., Guillen, L., and Brashears, M. M. 2015. Prevalence of Resistant and Susceptible *Campylobacter* in Retail Ground Beef. Selected for Oral Presentation at the 2015 Annual Beef Industry Safety Summit Meeting, Dallas, TX.

Ortega, K., Loneragan, G., Ortega, P., Vipham, J., Guillen, L., Brooks, J. C., and Brashears, M. M. 2015. Baseline Study for Prevalence of Resistant and Susceptible *Campylobacter* in Retail Ground Beef. Annual Reciprocal Meat Conference, Lincoln, NB.

Ortega, K., Loneragan, G., Ortega P., Vipham, J., Guillen, L., and Brashears, M. M. 2015. Prevalence of Susceptible and Resistant *Campylobacter* in Retail Ground Beef During the spring of 2013 in Lubbock, Texas. 102nd Annual Meeting of the International Association for Food Protection, Portland, OR.

Ortega, K., Loneragan, G., Ortega, P., Vipham, J., Guillen, L., Nightingale, K., and Brashears, M. M. 2015. Preliminary investigation of *Campylobacter* in ground beef at retail. Annual Meeting of ISVEE Mérida, Yucatán, México.

Parks, A., Mark F. Miller, Keelyn Hanlon, Siroj Pokharel, Kari Spivey, Mindy M. Brashears. 2015. Validation of the Efficacy of 4.55% FCC 88 Lactic Acid and 2.5% Lactic Acid/ Acetic Acid (50/50) Blend on Offal Meats and Carcass Surfaces Under Simulated Industry Conditions. RMC-Lincoln.

Ramirez-Hernandez, A., Inestroza, B. Sanchez-Plata, M.X., Parks, A., Echeverry, A., and Brashears, M. Determination of D- and Z- values of *Salmonella* spp. In rendered products. RMC Reciprocal Meat Science Association- Lincoln, June 2015.

Siroj Pokharel, Markus F Miller, Amy R Parks, Mindy M Brashears. 2015. The Prevalence of *Escherichia coli* O157:H7 and *Salmonella* spp. on Beef Heads and Variety Meat. AMSA Reciprocal Meats Conference (RMC) Proceedings: June 14-17, 2015; Lincoln, NE.

Siroj Pokharel, Markus F Miller, Amy R Parks, Mindy M Brashears. 2015. In-plant Validation Study to Determine the Efficacy of Lactic Acid as an Antimicrobial Intervention on Beef Heads and Variety Meats. AMSA Reciprocal Meats Conference (RMC) Proceedings: June 14-17, 2015; Lincoln, NE.

2014

Castelli, E., D. Campos, Q. Zhang and M.M. Brashears. 2014. Inhibition of *Listeria monocytogenes* with a Lactic Acid Bacteria Treatment for Fresh Strawberries. Presented at the Texas Tech University Undergraduate Research Competition. April 15-17, Lubbock, TX.

Banegas, C., K. Fermin, D. Stull, B. Chaves and M.M. Brashears. 2014. Reduction of *Salmonella* and *Escherichia Coli* O157:H7 in Drinking Water using Microwave Technology. Presented at the Texas Tech University Undergraduate Research Competition. April 15-17, Lubbock, TX.

Fermin, K., D. Stull, A. Neuber, J.C. Brooks and M.M. Brashears. Reduction of *Listeria monocytogenes* on Beef Franks utilizing Targeted Directional Microwave Technology.

103rd Annual Meeting of the International Association for Food Protection, August 3 to 6, Indianapolis, IN.

Gray, A., G.H. Loneragan, A. Parks and M.M. Brashears. 2014. Attachment and Biofilm formation of Shiga Toxin Producing *Escherichia coli* (STEC) to Stainless Steel at Varying Temperatures. Presented at the Texas Tech University Undergraduate Research Competition. April 15-17, Lubbock, TX.

Perez, O., K. Fermin, L. Garcia and M.M. Brashears. 2014. Reduction of *Listeria Monocytogenes* on Cured and Uncured Hotdogs using 5% Lactic Acid. Presented at the Texas Tech University Undergraduate Research Competition. April 15-17, Lubbock, TX.

Trojan, S.J., M.T. Brashears, A. Echeverry, and M.M. Brashears. 2014. Identification of barriers of Bahamian agriculture production: An assessment of stakeholder needs. Presented at the Joint Annual Meeting (JAM). July 20-24, Kansas City, MO.

2013

Ayala, D., M.M. Brashears, K. Nightingale, M. Miller, C. Narvaez Bravo, J.C. Brooks, and A. Brandt. 2013. Pulsed-field Gel Electrophoresis Subtyping of *Salmonella* Isolates from Carcasses, Lymph Nodes, and Fecal Samples from Cattle at Slaughter Facilities in Mexico. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Brashears, M.T., S. Morales, S. Trojan, S., A. Echeverry, and M.M. Brashears. 2013. An Evaluation of the Needs of Stakeholders within the Bahamian Food Production – Consumption Continuum. American Association for Agricultural Education National Research Conference, April 27-May 1, Miami, FL.

Brenes, B., S. Discua, M.T. Brashears, and M.M. Brashears. 2013. Texas Tech University – Zamorano University Internship Program: International Agricultural Cooperation through Education and Research. Proceedings of the American Association for Agricultural Education National Research Conference, April 27-May 1, Miami, FL.

Brizuela-Obando, S., M.T. Brashears, and M.M. Brashears. 2013. Faculty exchange between Texas Tech University (TTU) and Centre de Formation Fritz Lafontant (CFFL), Haiti. American Association for Agricultural Education National Research Conference, April 27-May 1, Miami, FL.

Calle, A., M.M. Brashears, and G. Loneragan. 2013. Prediction of *Escherichia coli* O157 Load Using Immunomagnetic Separation and Regression Analysis. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Calle, A., S. Pokharel, N. Pond, and M.M. Brashears. 2013. Capture efficiency of immunomagnetic separation (IMS) as applied to *E. coli* STEC O-groups. American Society for Microbiology, 113th Annual Meeting, May 18-21, 2013, Denver, CO.

Calle, A., M. Sellers, G. Loneragan, and M.M. Brashears. 2013. Simultaneous Immunomagnetic Separation (IMS) of Five *Escherichia coli* STEC O-groups with Subsequent Differentiation Using Modified Rainbow Agar. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Castelli, E.M., D. Campos, Q. Zhang, and M.M. Brashears. 2013. Inhibition of *Listeria monocytogenes* on alfalfa sprouts using lactiguard® culture. Institute of Food Technologists (IFT) Annual Meeting and Food Expo. July 13-16, Chicago, IL.

Chaves, B., L. Garcia, A. Echeverry, M. Miller, and M.M. Brashears. 2013. Prevalence of *Salmonella enterica*, *Escherichia coli* O157:H7 and Non-O157 Shiga Toxin-producing *Escherichia coli* in Beef Cuts Sold at Retail Markets in Costa Rica. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Chaves, B., L. Garcia, A. Echeverry, M. Miller, M.M. Brashears. 2013. Evaluation of Process Control to Prevent Contamination of Beef with Non-O157 Shiga Toxin-producing *Escherichia coli* (STEC) in U.S. Export Abattoirs in Costa Rica. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Chaves, B.D., M. Maradiaga, M.A. Calle, L. Thompson, S.P. Jackson, T. Jackson, M.F. Miller, L.G. Garcia, A. Echeverry, H. Ruiz, and M.M. Brashears. 2013. Evaluation of process control to prevent contamination of beef with non-0157 shiga toxin-producing *Escherichia coli* (STEC) in U.S. export abattoirs in Honduras and Nicaragua. 66th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 23-26, 2013, Auburn, AL.

Guillen, L., J. Vipham, A. Pond, N. Pond, G. Loneragan, and M.M. Brashears. 2013. Mitigation of *Salmonella* in Cattle Lymph Nodes in a Commercial Feedlot Setting Using NP51, a *Lactobacillus*-based Pre-harvest Intervention. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Hawkins, A., M.T. Brashears, and M.M. Brashears. 2013. Organizational Climate and Food Safety Training Change Employee Behaviors and Pathogen Loads in Non-TIF Beef Packing Plants in Mexico. American Association for Agricultural Education National Research Conference, April 27-May 1, Miami, FL.

Jaroni, D., K. Sullivan, M.M. Brashears, T. Brashears, G. Loneragan, C. Richards, A. Pond, and M. Miller. 2013. Identification of Contamination Sources and Prevalence of *Escherichia coli* O157:H7 and *Salmonella* on Small-scale Cow/Calf Operations in Oklahoma, Texas and Louisiana. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Jasti, N., W.E. Chaney, A. Echeverry, G. Loneragan, K. Nightingale, and M.M. Brashears. 2013. Efficacy of Lactic Acid, Hot Water, and Acidified Sodium Chlorite for the Reduction of Non-O157 Shiga Toxin-producing *Escherichia coli* (STEC) Utilizing a Hot Carcass Model and *Escherichia coli* O157:H7 as an Indicator. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Jasti, N., W.E. Chaney, A. Echeverry, G. Loneragan, K. Nightingale, and M.M. Brashears. 2013. Efficacy of Lactic Acid, Hot Water, and Acidified Sodium Chlorite for the Reduction of Non-O157 Shiga Toxin-producing *Escherichia coli* (STEC) Utilizing Chilled Beef Subprimals and *Escherichia coli* O157:H7 as an Indicator. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Khodammahammad, A., Q. Zhang, D. Campos, and M.M. Brashears. 2013. Antimicrobial Activity of Lactiguard® against Foodborne Pathogens in Laboratory Media. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Liao, Y. T., G. H. Loneragan, J. C. Brooks, A. Echeverry, M. F. Miller, and M. M. Brashears. 2013. Establishment of non-0157 shiga toxin-producing *Escherichia Coli* (STEC) baseline of retail ground beef in the United States. 66th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 23-26, 2013, Auburn, AL.

Maradiaga, M., M. Miller, A. Echeverry, L. Garcia, S. Gragg, H. Ruiz, A. Calle, and M.M. Brashears. 2013. Prevalence of *Salmonella* on Beef Hides and Carcasses at an Abattoir in Merida, Mexico. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Maragiada, M., M. Miller, L. Thompson, A. Echeverry, L. Garcia, M.M. Brashears, S. Gragg, A. Calle, A. Pond, and S. Ward. 2013. Baseline of *Salmonella* Prevalence in Retail Beef and Produce from Honduras and Mexico. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Newsome, S., M.T. Brashears, and M.M. Brashears. 2013. A Case Study Analysis of Organizational Climate and Food Safety in a Federally Inspected Beef Packing Plant in Veracruz, Mexico. American Association for Agricultural Education National Research Conference, April 27-May 1, Miami, FL.

Ortega, G., M. Miller, A. Calle, K. Ortega, A. Echeverry, and M. Brashears. 2013. Prevalence of *Escherichia coli* Non-0157:H7 STEC in Beef in Mexico. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Ortega, G., K. Ortega, A. Calle, A. Echeverry, and M.M. Brashears. 2013. Prevalence of *E. coli* non-0157:h7 STEC in beef in Mexico. Presented at the Texas Tech University Undergraduate Research Competition. April 22-25, 2013. Lubbock, TX.

Parks, A., K. Nightingale, J.C. Brooks, M. San Francisco, L. Thompson, G. Loneragan, and M.M. Brashears. 2013. Attachment of Shiga Toxigenic *Escherichia coli* (STEC) on Stainless Steel Hex Nuts in Minimal and Full Nutrient Broth. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Parks, A.R., K.K. Nightingale, J.C. Brooks, M. San Francisco, L.D. Thompson, G.H. Loneragan, and M.M. Brashears. Attachment of Shiga-Toxigenic *Escherichia coli* (STEC) on Stainless Steel Hex Nuts. American Society for Microbiology, 113th Annual Meeting, May 18-21, 2013, Denver, CO.

Pond, A., M. Brashears, G. Loneragan, L. Guillen, J. J. Vipham, and N. Pond. 2013. Reduction of *Escherichia Coli* 0157 and non0157 groups in the feces of commercial feedlot cattle using a high-dose of NP51, A *Lactobacillus*-based pre-harvest intervention. 66th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 23-26, 2013, Auburn, AL.

Pond, N., A. Pond, L. Guillen, J. Vipham, B. Johnson, G. Loneragan, and M.M. Brashears. 2013. Evaluation of NP51 Feed Additive in a Research Feedlot Facility and Its Effectiveness in Reducing Shiga Toxin-producing *Escherichia coli* (STEC) in Cattle Feces. 100th Annual Meeting of the International Association for Food Protection (IAFP), July 28-31, Charlotte, NC.

Ruiz, H., M.F. Miller, S. Gragg, G.H. Loneragan, L.G. Garcia, and M.M. Brashears. 2013. *Salmonella* prevalence in beef lymph nodes and feces from cattle harvested at five Mexican abattoirs. 66th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 23-26, 2013, Auburn, AL.

Ruiz, H., M.F. Miller, L.D. Thompson, J.C. Brooks, G.H. Loneragan, A. Echeverry, G.O. Cervera, and M.M. Brashears. 2013. Prevalence of *Salmonella* in Lymph Nodes of Swine Harvested in Mexico. Presented at the 2013 Beef Industry Safety Summit (BIFSCO). March 13-15, Dallas, TX.

Ruiz, H., M. F. Miller, L. D. Thompson, L. G. Garcia, C. Brooks, G. H. Loneragan, A. Echeverry, M. M. Brashears, and G. O. Cervera. 2013. *Salmonella* presence in lymph nodes and tonsils of swine harvested in Cancun and Merida, Mexico. 66th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 23-26, 2013, Auburn, AL.

Salgado, E., M. Maradiaga, J.K. Torres, A. Calle, and M.M. Brashears. 2013. Reduction of *Salmonella enteria* and *Listeria Monocytogenes* in cantaloupes and mangoes using low-cost chemical antimicrobial interventions. Institute of Food Technologists (IFT) Annual Meeting and Food Expo. July 13-16, Chicago, IL.

Sunkara, V. K., J. C. Brooks, W. E. Chaney, J. N. Martin, and M. M. Brashears. 2013. Reduction of pathogenic bacteria in ground beef using a *Lactobacillus*-based biological intervention. 66th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 23-26, 2013, Auburn, AL.

Vipham, J. L., G. H. Loneragan, A. Pond, L. M. Guillen and M. M. Brashears. 2013. Reduction of *Salmonella* in cattle subiliac lymph nodes in a research feedlot setting using a *Lactobacillus Acidophilus* (NP51) based pre-harvest intervention. 66th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 23-26, 2013, Auburn, AL.

Zhang, Q., K. Nightingale, A. Khodammohammadi, and M.M. Brashears. 2013. Inactivation of *Listeria Monocytogenes* by lactic acid bacteria as influenced by culture media and temperature. Institute of Food Technologists (IFT) Annual Meeting and Food Expo. July 13-16, Chicago, IL.

2012

Calle, A., M.M Brashears, and G.H Loneragan. 2012. Effect of Bovamine® on Prevalence and Concentration of *Escherichia coli* O157:H7 and Non-O157 Shiga Toxin-producing *Escherichia coli* (STEC) on Beef Feedlot Cattle. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Calle, M.A., G.H. Loneragan, and M.M. Brashears. 2012. Effect of Bovamine® on prevalence and concentration of *Escherichia coli* O157:H7 and non-O157 Shiga-toxin producing *Escherichia coli* (STEC) on beef feedlot cattle. Detection through the real time PCR BAX® system from DuPont Qualicon. Beef Safety Summit, March 6-9, Tampa, FL.

Campos, D., Q. Zhang, and M.M. Brashears. 2012. Inhibition Activity of Lactic Acid Bacteria against *Salmonella*, *Escherichia coli* O157:H7 and non-O157 STECs in Ground Beef. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Chaney, W.E., Y.T. Liao, M.J. Wolf, A.R. Parks, J. Martin, A.J. Garmyn, A. Echeverry, L.D. Thompson, M.F. Miller, J.C. Brooks, G.H. Loneragan, and M.M. Brashears. 2012. *Escherichia coli* O157:H7 and non-O157 STEC Survival and Reduction on Intact Beef Subprimal and Non-intact Beef Trim and Steaks by Intervention and Cooking Processes. Beef Safety Summit, March 6-9, Tampa, FL.

Chaney, W.E., V.K. Sunkara, M.F. Miller, and M.M. Brashears. 2012. Reduction of "Big 6" Non-O157 STEC on Chilled Beef Sub-primals Using 5% Lactic Acid. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Gragg, S.E., G.H. Loneragan, K.K. Nightingale, J.R. Elder, H. Ruiz, M.F. Miller, A. Echeverry, and M.M. Brashears. 2012. Prevalence and Characterization of *Salmonella* Recovered from Lymph Nodes and Feces of Cattle at Harvest in Mexican Slaughter Facilities. Beef Safety Summit, March 6-9, Tampa, FL.

Gragg, S., G. Loneragan, K. Nightingale, J. Elder, H. Ruiz, M. Miller, A. Echeverry, and M. Brashears. 2012. Prevalence and Characterization of *Salmonella* Recovered from Lymph Nodes and Feces of Cattle at Harvest in Mexican Slaughter Facilities. 65th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 15-20, Fargo, ND.

Gragg, S., K. Nightingale, J. Elder, H. Ruiz, G.H. Loneragan, M.F. Miller, A. Echeverry, and M.M. Brashears. 2012. Characterization of *Salmonella* Isolated from the Lymph Nodes and Feces of Cattle Presented for Harvest at a Slaughter Facility in Mexico. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Hartzog-Hawkins, A. Echeverry, M.T. Brashears, L. D. Thompson, M.F. Miller, J. Zamora, L. G. Garcia, C. Narvaez, L. Lemons, M. Shaw, A. Pond, H. Ruiz, M. Maradiaga, A. Calle and M.M. Brashears. Organizational Climate and Food Safety Training Change Employee Behaviors and Pathogen Loads in Non-inspected Beef Packing Plants in Mexico. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Ison, J.J., G.H. Loneragan, G.E. Erickson, R.A. Moxley, D.R. Smith, and M.M. Brashears. 2012. A Meta-analysis of the association of *Lactobacillus acidophilus* NP51 administration with *Escherichia coli* O157 in feces and on hides of feedlot cattle. Annual Meeting of the Conference of Research Workers in Animal Diseases (CRWAD), December 2-4, Chicago, IL.

Ison, S.A., G.H. Loneragan, M.M. Brashears, B. Norby, and H.M. Scott. 2012. Effect of Flavophospholipol and Environment on Antimicrobial Resistance in Beef Cattle. Annual Meeting of the Conference of Research Workers in Animal Diseases (CRWAD), December 2-4, Chicago, IL.

Ison, S.A., G.H. Loneragan, B.C. Meiwes, S.J. Trojan, J.J. Ison, M.M. Brashears, H.M. Scott, P. McDermott, S. Ayers, M. Torrence. Antimicrobial susceptibility of *Escherichia coli* and *Salmonella* isolated from feedlot cattle: a NARMS pilot study. Annual Meeting of the Conference of Research Workers in Animal Diseases (CRWAD), December 2-4, Chicago, IL.

Lemons, L., M.T. Brashears, A. Hartzog, A. Echeverry, L. Thompson, M.F. Miller, L. Garcia, and M.M. Brashears. 2012. A Comparison of Food Safety Climate at Municipal and Private Beef Slaughter Plants in Mexico. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Liao, Y.T., J.C. Brooks, J.N. Martin, A. Echeverry, G.H. Loneragan, and M.M. Brashears. 2012. Spray Intervention Treatments and Cooking to reduce *Escherichia coli* O157:H7 and Non-O157 STECs on the Surface of Beef Subprimals, and within Needle-Tenderized Steaks. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Loneragan, G.H., D.U. Thomson, B.A. Butler, M.M. Brashears, R.M. McCarthy, T.M. Arthur, J.M. Bosilevac, N. Kalchayanand, J.W. Schmidt, T.L. Wheeler, A.L. Siemens, D.L. Schaefer, C.B. Rose,

J.B. Ruby, T.C. Bryant, R.J. Algino, B.W. Wileman, D.T. Burkhardt, L.M. Slinden, and D.A. Emery. 2012. Vaccination to control *E. coli* O157 in cattle housed in commercial production systems. International symposium on Verotoxigenic *E. coli*, May, Amsterdam.

McCarthy, R.M., G.H. Loneragan, H. Donely, L.I. Wright, D.U. Thomson, J.B. Morgan, K.K. Nightingale, M.M. Brashears. 2012. Commercial Evaluation of an SRP-containing *Escherichia coli* Bacterial Extract Vaccine. Annual Meeting of the Conference of Research Workers in Animal Diseases (CRWAD), December 2-4, Chicago, IL.

Maradiaga, M., M.F. Miller, L. Thompson, A. Calle, A. Pond, S. Ward, A. Echeverry, L. Garcia, and M.M. Brashears. 2012. Baseline of *Salmonella* prevalence in retail beef and produce in Honduras and Mexico. Annual Meeting of the Institute of Food Technologists (IFT), June 26-28, Las Vegas, NV.

Narvaez-Bravo, C., M.F. Miller, A. Rodas-González, A. Calle, M.T. Brashears, A. Echeverry, M. Aslam, and M.M. Brashears. 2012. Virulence characterization of *Escherichia coli* O157:H7 isolated from fecal samples and beef carcasses in Mexico. 58th International Congress of Meat Science and Technology, August 12-17, Montréal, Canada.

Ortega; G., A. Calle, A. Echeverry, and M.M. Brashears. 2012. Detection of *Salmonella* and *Escherichia coli* O157:H7 (stx and eae genes) at different concentrations of viable and nonviable cells through the BAX® System from Dupont Qualicon. Annual Meeting of the Institute of Food Technologists (IFT), June 26-28, Las Vegas, NV.

Pond, A., G.H. Loneragan, M.T. Brashears, D. Jaroni, M.F. Miller, L. Lemons, and M.M. Brashears. 2012. Prevalence of *Salmonella* and *Escherichia coli* O157:H7 in Cow/Calf Operations in Texas, New Mexico and Oklahoma during the Summer and Fall Months. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Ruiz, H., M. Miller, G. Loneragan, S. Gragg, M. Brashears, and L. Garcia. 2012. *Salmonella* Prevalence in Lymph Nodes and Feces of Cattle Presented for Harvest in Mexico. 65th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 15-20, Fargo, ND.

Tapp III, W.N., S.E. Gragg, J.C. Brooks, M.M. Brashears, and M.F. Milller. 2012. Reduction of *Escherichia coli* O157:H7 following application of various sanitizing treatments to harvesting knives. 65th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 15-20, Fargo, ND.

Ward, S., M.F. Miller, A. Echeverry, L. Garcia, G.H. Loneragan, A. Pond, T. Jackson, L. Thompson, S. Jackson, J.C. Brooks, R. G. Ramirez Porrás, G. Cervera, and M.M. Brashears. 2012. Reduction of *Salmonella* Using Lactic Acid and Potassium Lactate on Non-federally Inspected Whole Muscle Beef Steaks Purchased in Meat Markets of Mexico. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Webb, H.E., G.H. Loneragan, S.E. Gragg, M.M. Brashears, K.K. Nightingale, T.M. Arthur, J.M. Bosilevac, N. Kalchayanand, J.W. Schmidt, R. Wang, and D.M. Brichta-Harhay. 2012. *Salmonella enterica* in lymph nodes of cull and fed cattle at harvest. Annual Meeting of the Conference of Research Workers in Animal Diseases (CRWAD), December 2-4, Chicago, IL.

Willems, A., J.C. Brooks, A. Parks, L. Jackson, and M.M. Brashears. 2012. Heat Tolerance of Shiga-toxigenic *Escherichia coli* (STEC) in Laboratory Media. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

Wolf, M., M.F. Miller, A. Parks, G.H. Loneragan, A. Garmyn, L. Thompson, and M.M. Brashears. 2012. Validation of Lactic Acid Dip and Spray in Reducing *Escherichia coli* O157:H7, *Salmonella*, and Non-O157 Shiga-toxigenic *Escherichia coli* (STEC) on Beef Trim and Ground Beef. 99th Annual Meeting of the International Association for Food Protection (IAFP), July 22-25, Providence, RI.

2011

Brown, T.R., M.M. Brashears, C. Chancey, J.N. Martin, A. Echeverry, S.P. Jackson, L.D. Thompson, and J.C. Brooks. 2011. Influence of lactic acid spray applied in a cold environment and vacuum packaged storage on the presence of *Escherichia coli* O157:H7 on beef strip loins. 64th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-22, Manhattan, KS.

Chaney, W.E., G.H. Loneragan, and M.M. Brashears. 2011. Corn-Based Distiller's Grain and the Burden of *Escherichia coli* O157:H7 in Commercial Feedlot Settings and Development of a Semi-quantitative Method to Estimate Concentration of *E. coli* O157:H7. Beef Safety Summit, March 2-4, Dallas, TX.

Chaney, W.E., G.H. Loneragan, and M.M. Brashears. 2011. A Semi-Quantitative Methodology for *Escherichia coli* O157:H7 in Bovine Feces. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Chaney, W.E., G.H. Loneragan, H.M. Scott, and M.M. Brashears. 2011. Development of a semi-quantitative ranking scheme to estimate the concentration of *Escherichia coli* O157:H7 in bovine feces. 92nd Annual Meeting of the Conference of Research Workers in Animal Diseases, December 4-6, Chicago, IL.

Chaney, W.E., G.H. Loneragan, R. McCarthy, M.F. Miller, B.J. Johnson, J.C. Brooks, and M.M. Brashears, 2011. Effects of Corn-Based Distillers Grain (DG) Inclusion into Feeding Rations on the Burden of *Escherichia coli* O157:H7 in Commercial Feedlot Settings. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Daniels, P., M. Miller, A. Laury, G. Loneragan, M. Brashears, and C. Brooks. 2011. Testing for the presence of *Salmonella* in dog treats through in plant validation, inoculation, and cooking. 64th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-22, Manhattan, KS.

Gragg, S.E., G.H. Loneragan, D.M. Brichta-Harhay, T.M. Arthur, J.M. Bosilevac, N. Kalchayanand, R. Wang, J.W. Schmidt, J.C. Brooks, S.D. Shackelford, T.L. Wheeler, T.R. Brown, and M.M. Brashears. 2011. *Salmonella* in Lymph Nodes of Cattle Presented for Harvest. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Laury A.M., K. Fermin, D. Stull, A. Neuber, J.C. Brooks, M.T. Brashears, C. Alvarado, and M.M. Brashears. 2011. Reduction of Methicillin-resistant Staphylococcus aureus (MRSA) on towels utilizing targeted directional microwave technology. 111th General Meeting of the American Society for Microbiology, May 21-24, New Orleans, LA.

Laury A.M., K. Fermin, D. Stull, A. Neuber, J.C. Brooks, M.T. Brashears, C. Alvarado, and M.M. Brashears. 2011. Re-distribution of Methicillin-resistant Staphylococcus aureus (MRSA) during the laundering of cotton towels. 111th General Meeting of the American Society for Microbiology, May 21-24, New Orleans, LA.

Laury A.M., K. Fermin, D. Stull, A. Neuber, J.C. Brooks, M.T. Brashears, C. Alvarado, and M.M. Brashears. 2011. Reduction of Salmonella on jalapeño peppers, peanuts, and dry dog food utilizing targeted directional microwave technology. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Liao, Y.T., A. Echeverry, A. Ulmer, R. Lacey, D. Henroid, M. Binkley, and M.M. Brashears. 2011. Evaluation of Hygienic Practices and Efficacy of an Educational Hand-washing Intervention among Restaurants in Lubbock and San Francisco. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Martin, J.N., M.M. Brashears, C. Chancey, A. Echeverry, S.P. Jackson, L.D. Thompson, and J.C. Brooks. 2010. Reduction of E. coli O157:H7 using lactic acid and cooking in needle tenderized beef strip steaks. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Narvaez-Bravo, C., M.F. Miller, S. Jackson, T. Jackson, A. Rodas-Gonzalez, A. Echeverry, K. Pond, and M.M. Brashears. 2011. Comparison of Salmonella and E. coli O157 prevalence on beef carcasses harvested in Mexico under two different production procedures under TIF regulations. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Narvaez-Bravo, C., M.F. Miller, T. Jackson, S. Jackson, A. Rodas-Gonzalez, K. Pond, A. Echeverry, and M.M. Brashears. 2011. Determination of risk factors associated with Salmonella and E. coli O157 prevalence on carcasses in a Mexican slaughter plant. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Pond, A., M.F. Miller, A. Echeverry, G. Loneragan, and M.M. Brashears. 2011. Salmonella and E. coli O157:H7 prevalence on beef carcasses in a non-TIF harvest plant in the Cuautla, Mexican. 64th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-22, Manhattan, KS.

Pond, A., M.F. Miller, A. Echeverry, G.H. Loneragan, M.T. Brashears, R. Ramírez Porras, G. Ordaz Cervera, and M.M. Brashears. 2011. Salmonella and E. coli O157:H7 Prevalence on Beef Carcasses in a Non-TIF Harvest Plant in the Mexican Yucatan. 98th

Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Pond, A., M.F. Miller, T. Jackson, A. Echeverry, E. Randazo, and M.M. Brashears. 2011. Validation of Lactic Acid Interventions on the Reduction of *Escherichia coli* Biotype I, Coliforms and Total Aerobic Bacteria on Chilled Beef Products Processed at a commercial US slaughter facility. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Pond, A., M.F. Miller, T. Jackson, E. Randazo, and M.M. Brashears. 2011. Validation of lactic acid and ASC Interventions on the reduction of *Escherichia coli* biotype I, coliforms and total aerobic bacteria on beef carcasses processed at a commercial U.S. slaughter facility. 64th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-22, Manhattan, KS.

Tapp, W.N. III, J.W.S. Yancey, J.K. Apple, M.J. Wolf, A.M. Laury, J.C. Brooks, M.M. Brashears, and M.F. Miller. 2011. Shelf life extension, organoleptic variation, and pathogenic reduction of non-treated beef patties. 64th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-22, Manhattan, KS.

Vipham, J.L., M.F. Miller, G.H. Loneragan, A. Echeverry, J.C. Brooks, W.E. Chaney, and M.M. Brashears. 2010. Salmonella, Campylobacter, and Putative Non-O157 Shiga Toxin-Producing *Escherichia coli* (STEC) in Ground Beef and Whole Muscle Beef Cuts in the United States. 98th Annual Meeting of the International Association for Food Protection (IAFP), July 31-August 3, Milwaukee, WI.

Vipham, J.L., M.F. Miller, G.H. Loneragan, A. Echeverry, J.C. Brooks, W.E. Chaney, and M.M. Brashears. 2011. Salmonella, Campylobacter, and putative non-O157 shiga toxin-producing *Escherichia coli* (stec) prevalence in ground beef and whole muscle beef cuts at retail in the United States. 64th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-22, Manhattan, KS.

Ward, S.N., A. Echeverry, M.M. Brashears, A. Pond, L. Garcia, T. Jackson, L. G. Thompson, K. Pond, G. Loneragan, J. C. Brooks, and M.F. Miller. 2011. Effects of lactic acid on Salmonella levels on non-federally-inspected whole muscle beef steaks purchased in meat markets of Mexico. 64th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-22, Manhattan, KS.

2010

Binkley, M., S. Nanivadekar, L. Thompson, and M.M. Brashears. 2010. Microbial testing of the consumer environment in foodservice establishments: a pilot study. 97th Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

Brown, A.L., E. Karunasena, J.C. Brooks, A. Echeverry, and M.M. Brashears. 2010. Inhibition of *Escherichia coli* O157:H7 and *Clostridium sporogenes* in spinach packaged in modified atmospheres after treatment with chlorine and lactic acid. 97th Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

Chaney, W.E., A. Echeverry, H. Ruiz, M.F. Miller, M.M. Brashears. 2010. Efficacy of Brine Chilling on the Reduction of *Escherichia coli* O157:H7 and *Salmonella* on Hot Beef Carcass Surfaces. 97th

Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

Echeverry, A., T. Jackson, A. Laury, S. Gragg, A. Brown, W.E. Chaney, L. Yen-Te, M.F. Miller, and M.M. Brashears. 2010. Validation of a hot water wash as a Carcass Intervention in a Beef Processing Plant. 63rd Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-23, Lubbock, TX.

Echeverry, A., T. Jackson, A. Laury, S. Gragg, A. Brown, W.E. Chaney, L. Yen-Te, M.F. Miller, and M.M. Brashears. 2010. Validation of Lactic Acid as an Antimicrobial Intervention in a Beef Processing Plant. 63rd Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-23, Lubbock, TX.

Echeverry, A., A. Pond, C. Narváez-Bravo, M.F. Miller, T. Jackson, A. Laury, K. Pond, G.H. Loneragan, M.T. Brashears, N. Huerta-Leidenz y M.M. Brashears. 2010. Prevalence of Salmonella in Beef and Pork in Mexican Retail Markets: Its Relationship with Observations taken at Different Slaughter and supplier Plants and its Impact on Final Product Safety [*In Spanish: Prevalencia de Salmonella en Carne de Res y Cerdo en Mercados Minoristas Mexicanos: Su Relacion con Observaciones en Diferentes Plantas de Sacrificio Suplidoras e Impacto en la Inocuidad del Producto Final*]. 10th National Congress of Food Science and Technology ACTA, XVI Latin American Seminar of Food Science and Technology ALACCTA and 2nd Latin American symposium on food safety (IAFP), September 21-24, Bogota, Colombia.

Henroid, D., M. Binkley, R. Lacey, A. Ulmer, and M.M. Brashears. 2010. Handwashing practices in California and Texas Quick Service and Full Service Restaurants. 97th Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

Laury, A, A. Echeverry, M. Alvarado, S. Gragg, A. Brown, C. Narvaez, P. Sunkara, and M.M. Brashears. 2010. Electrostatically sprayed lactic acid bacteria as a pre-harvest intervention strategy for reduction of *Escherichia coli* O157:H7 on spinach plant. 97th Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

Narváez-Bravo, C., A. Echeverry, A. Rodas-González, M.F. Miller, T. Jackson, K. Pond, A. Laury, W.E. Chaney, M.T. Brashears, G.H. Loneragan, y M.M. Brashears. 2010. Seasonal prevalence of Salmonella and *E. coli* O157: H7 in beef cattle and its impact on different stages of Beef in a slaughterhouse in Mexico [*In Spanish: Prevalencia Estacional De Salmonella Y E. coli O157:H7 En Ganado De Engorde Y Su Impacto En Diferentes Etapas Del Procesamiento De Carne De Res En Una Planta De Faenado En México*]. 10th National Congress of Food Science and Technology ACTA, XVI Latin American Seminar of Food Science and Technology ALACCTA and 2nd Latin American symposium on food safety (IAFP), September 21-24, Bogota, Colombia.

Narvaez-Bravo, C., M.F. Miller, A. Echeverry, K. Pond, and M.M. Brashears. 2010. *Salmonella* and *E. coli* O157:H7 prevalence in cattle and on carcasses in a vertically integrated feedlot and harvest plant in Mexico. 97th Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

Pond, A. R., C. Gardner, W. E. Chaney, A. Echeverry, A. Laury, and M.M. Brashears. 2010. Validation of beefside on the reduction of *Salmonella* and *Escherichia coli* O157:H7 on a beef carcasses calf model. 63rd Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-23, Lubbock, TX.

Pond, A., M.F. Miller, A. Echeverry, G.H. Loneragan, M. Salud Rubio, A. Chavez, and M.M. Brashears. 2010. *Salmonella* and Pathogenic *E. coli* Prevalence and Generic *E. coli* Quantitative Baselines in Raw Pork and Beef at Retail Outlets in Mexico. 97th Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

Sunkara, P., A. Echeverry, G.H. Loneragan, M.F. Miller, A. Pond, E. Karunasena y M.M. Brashears. 2010. Antibiotic Resistance Profiles in *Salmonella* serotypes isolated from samples of Beef and Pork obtained from Retail Establishments in Mexico [In Spanish: *Perfiles De Resistencia A Los Antibióticos En Serotipos De Salmonella Aislados De Muestras De Carne De Res Y De Cerdo En Establecimientos De Venta Al Público En México*]. 10th National Congress of Food Science and Technology ACTA, XVI Latin American Seminar of Food Science and Technology ALACCTA and 2nd Latin American symposium on food safety (IAFP), September 21-24, Bogota, Colombia.

Sunkara, P., G.H. Loneragan, M.F. Miller, A. Echeverry, E. Karunasena, and M.M. Brashears. 2010. Antibiotic resistance profiles of cattle associated *Salmonella* serotypes in Mexico. 63rd Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 19-23, Lubbock, TX.

Sunkara, P., G.H. Loneragan, M.F. Miller, A. Echeverry, E. Karunasena, and M.M. Brashears. 2010. Antibiotic Resistance Profiles of Cattle Associated *Salmonella* Serotypes in United States and Mexico. 97th Annual Meeting of the International Association for Food Protection (IAFP), August 1-4, Anaheim, CA.

2009

Chaney, W.E., E. Karunasena, A. Echeverry and M.M. Brashears. 2009. Influence of Modified Atmosphere Packaging (MAP) on *Escherichia coli* O157:H7 Growth and Virulence: Effects on Shiga Toxin and Biofilm Production. 96th Annual Meeting of the International Association for Food Protection (IAFP), July 12-15, Grapevine, TX.

Chaney, W.E., E. Karunasena, M.M. Brashears. 2009. Influence of Food-Associated Modified Atmosphere (MAP) and Overwrap Packaging on *Escherichia coli* O157:H7 Static Biofilm Formation in Tryptic Soy Broth (TSB) Suspension. 109th Annual Meeting of American Society for Microbiology, May17-21, Philadelphia, PA.

Dow, A.E., C. Alvarado, P. Takhar, M.M. Brashears. 2009. Control of *Listeria monocytogenes* on contact and non- contact surfaces by electrostatic spraying of quaternary. 96th Annual Meeting of the International Association for Food Protection (IAFP), July 12-15, Grapevine, TX.

Gragg, S.E. and M.M. Brashears. 2009. Reduction Of *Escherichia coli* O157:H7 in Fresh Spinach Using Chlorine And Lactic Acid Bacteria As A Multi-Hurdle Intervention. 96th Annual Meeting of the International Association for Food Protection (IAFP), July 12-15, Grapevine, TX.

Hughes, M.K., B.M. Hughes, G.H. Loneragan, and M.M. Brashears. 2009. Selecting Susceptible and Resistant *Salmonella* Serovars for Cocktail Preparation: A Case Study in Mitigating Sample Bias Using Statistical Methods. 96th Annual Meeting of the International Association for Food Protection (IAFP), July 12-15, Grapevine, TX.

Karunasena, E., E.P. Kiernan, P. Kurkure, R. Lackey, and M.M. Brashears. 2009. Contributors to Host Health by Probiotics in an *In vivo* Model for *Mycobacterium avium* subspecies *paratuberculosis* (MAP) Associated Enteric Disease: Effects on Host Gastro-Intestinal

Physiology, Immunity, and Flora. 109th Annual Meeting of American Society for Microbiology, May17-21, Philadelphia, PA.

Laury, A.M., M.V. Alvarado, J.C. Brooks, A. Echeverry, and M.M. Brashears. 2009. Inhibition of Growth of Escherichia coli O157:H7 and Salmonella in ground beef using modified atmosphere packaging systems. 96th Annual Meeting of the International Association for Food Protection (IAFP), July 12-15, Grapevine, TX.

Laury, A.M. and M.M. Brashears. 2009. Survival of Lactic Acid Bacteria In Various Water Sources And Sandy Loam Soil. 96th Annual Meeting of the International Association for Food Protection (IAFP), July 12-15, Grapevine, TX.

Pond, A., A. Echeverry, and M.M. Brashears. 2009. Validation of dosage and shelf-life properties of beef products treated with bovine meat cultures. 62nd Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 21-24, Rogers, AR.

Yanamala, S., G.H. Loneragan, M.F. Miller and M.M. Brashears. 2009. Microbial Contamination of spinach placed in close proximity of cattle feed yard operations. 96th Annual Meeting of the International Association for Food Protection (IAFP), July 12-15, Grapevine, TX.

2008

Alvarado, M., A. Laury, C.Z. Alvarado, M.M. Brashears. 2008. Evaluation of Spraying a Lactic Acid Based Antimicrobial Product on the Reduction of Salmonella on Broiler Chickens. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Chaney, W.E., E. Karunasena, S.E. Gragg, M.M. Brashears. 2008. Reduction of E.coli 0157:H7 DSC in Fresh Commercial Spinach by Lactic Acid Bacteria. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Collins, J., J.C. Brooks, A. Echeverry, M.M. Brashears, M.F. Miller. 2008. Sensory Properties of Needle Tenderized and Injected Beef after Treatment with Intervention Strategies to Control Food-Borne Pathogens. 61st Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 22-25, Gainesville, FL.

Dow, A., C.Z. Alvarado, M.M. Brashears. 2008. Reduction of Salmonella in Ground Turkey Breasts with a Lactobacillus-Based Intervention. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Echeverry, A., J.C. Brooks, M.M. Brashears. 2008. Validation of Intervention Strategies to Control E.coli 0157:H7 and Typhimurium DT 104 in Injected Beef at the Retail Level. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Echeverry, A., J.C. Brooks, M.F. Miller, J. Collins, M.M. Brashears. 2008. Validation of Intervention Strategies to control E.coli 0157:H7 and Salmonella Typhimurium DT 104 in Beef Subjected to Mechanical Tenderization in a Simulated Packer Setting. 61st Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 22-25, Gainesville, FL.

Echeverry, A., J.C. Brooks, M.F. Miller, J. Collins, M.M. Brashears. 2008. Validation of Intervention Strategies to Control *E. coli* 0157:H7 and *Salmonella* Typhimurium DT 104 in Beef Subjected to Blade Tenderization at the Purveyor. 61st Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 22-25, Gainesville, FL.

Gasser, S., W.E. Chaney, M. Lyte, K.W. McMahon, M. Galyean, Enusha Karunasena, and M.M. Brashears. 2008. Consequences of Stress and Diet on the Endocrine and Immune Systems of Cattle and Their Effects on *Escherichia coli* 0157:H7 & *Salmonella* species and Seasonal Shedding. ASM General Meeting, June 1-5, Boston, MA.

Gragg, S.E., J.C. Brooks, A. Laury, and M.M. Brashears. 2008. Effect of Lactic Acid Producing Bacteria DSC on the Sensory Characteristics of Fresh Spinach. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Gragg, S.E., A. Laury, M.F. Miller, and M.M. Brashears. 2008. Environmental Contamination of Spinach in Close Proximity to Cattle Operations. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Karunasena, E., A.M. Zischkau, E.P. Kiernan, S.J. Gasser, K.W. McMahon, S.R. Takhar, and M.M. Brashears. 2008. Consequences of a Direct Fed Probiotic on Natural Gut Flora in an *in vivo* study. International Association for Food Protection (IAFP) Latin America, May 26-28, Campinas, Brazil.

Karunasena, E., E.P. Kiernan, A.M. Zischkau, A.M. Lopez, S.R. Takhar, and M.M. Brashears. 2008. In Vitro Growth and Virulence of *Escherichia coli* 0157:H7 in Gut, Serum, and Fecal Content of BALB/c Mice Fed Probiotics: Implications of a Diet on Host, Environment, & Pathogen. ASM 2nd Conference on Beneficial Microbes, October 12-16, San Diego, CA.

Kunze, D.J., T. Poole, R. Anderson, M.M. Brashears, T. E. Besser, J. B. Daniels, T. M. Platt, and G.H. Loneragan. 2008. Molecular characterization of non-type specific *E. coli* isolates recovered from cattle exposed to ceftiofur. 89th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 7-9, Chicago, IL.

Laury, A., M. Alvarado, G. Nance, J.C. Brooks, and M.M. Brashears. 2008. Evaluation of the Reduction of *E. coli* 0157:H7 and *Salmonella* spp. By Spraying a Lactic Acid- Based Antimicrobial Product on USDA Select Beef Tips. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Loneragan, G.H., L. R. Matthews, A. Daniels, T. Edrington, D. Nisbet, T. M. Platt, R.M. McCarthy, M. Nemechek, C. Narvaes, T. Jackson, and M.M. Brashears. 2008. *Salmonella* in Cull Dairy Cattle of the Texas high Plains. 89th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 7-9, Chicago, IL.

McCarthy, R. M., G.H. Loneragan, and M.M. Brashears. Initial investigation of the burden of methicillin-resistant *Staphylococcus aureus* (MRSA) in cattle. 2008. 89th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 7-9, Chicago, IL.

Platt, T.M., G.H. Loneragan, L.A. Branham, M.J. Engler, D.U. Thomson, R.S. Singers, and M.M. Brashears. 2008. Feedlot Production Practices and Their DSC Impact on Pre- and Post-Harvest Anti-microbial Susceptibility Patterns of *Enterococcus* spp. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Pool, J., J.C. Brooks, A. Chaloupka, S. Gragg, and M.M. Brashears. 2008. Small Food Business Model for Outreach Services. 61st Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 22-25, Gainesville, FL.

Randhawa, S., M.M. Brashears, M. Fokar, and E. Karunasena. 2008. Identification of Primers to Detect Lacto-DSC bacillus acidophilus NP51 in Cattle Feces. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Rekow, C., M.F. Miller, J.C. Brooks, G.H. Loneragan, and M.M. Brashears. 2008. Comparison of Detection Methods and Their Sensitivity in Identifying and Quantifying E.coli 0157 Isolated from Beef Carcasses and Hides. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Rekow, C., M.F. Miller, J.C. Brooks, G.H. Loneragan, and M.M. Brashears. 2008. Changes in Microbial Indicators in Beef throughout Slaughter and Fabrication. 61st Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 22-25, Gainesville, FL.

Rekow, C., M.F. Miller, J.C. Brooks, G.H. Loneragan, and M.M. Brashears. 2008. Prevalence and Distribution of Escherichia coli 0157 on Beef Carcasses at Three Slaughter Plants. 95th Annual Meeting of the International Association for Food Protection (IAFP), August 3-6, Columbus, OH.

Rogers, H., J.C. Brooks, M.F. Miller, R. Huffman, M. Carr, and M.M. Brashears. 2008. Impact of Packaging and Temperature Abuse on the Shelf-Life Characteristic of Ground Beef. 61st Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 22-25, Gainesville, FL.

Scott, H.M., B. Norby, G.H. Loneragan, M.M. Brashears, and R.B. Harvey. 2008. Critical thresholds of resistance in enteric bacteria: modeling, monitoring and managing microbial ecology to protect antimicrobials of critical importance. ASM Conference on Antimicrobial Resistance in Zoonotic Bacteria and Foodborne Pathogens. June 15-18, Copenhagen, Denmark.

Webb, H.E., G.H. Loneragan, A. Daniels, R.M. McCarthy, and M.M. Brashears. 2008. Prevalence, susceptibility, and diversity of serotypes of *Salmonella enteric* recovered from dairy cattle in the Texas High Plains. 89th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 7-9, Chicago, IL.

2007

Alvarado, M., J.C. Brooks, M.F. Miller, T. Jackson, and M.M. Brashears. 2007. Meat Packaging Technologies and the Safety of Ground Beef. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Alvarado, C.Z. and M.M. Brashears. 2007. Reduction of Salmonella in Whole and Ground Turkey Meat at Refrigerated and Elevated Temperatures using Lactic Acid Bacteria. Joint Annual Meeting of the Poultry Science Association. July, 2007, San Antonio, TX.

Brooks, J.C., M.K. Hughes, E. Karunasena, and M.M. Brashears. 2007. Reduction of *Escherichia coli* O157:H7 in whole muscle beef cuts using lactic acid bacteria cultures. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Branham, L.A., T.M. Platt, G.H. Loneragan, M.J. Engler, D.U. Thomson, R.S. Singer, M.M. Brashears. 2007. Impact of In-Feed Antimicrobial Drug Use on Antimicrobial Susceptibility Patterns of Generic *Escherichia coli*. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Brashears, M.M., M.F. Miller, J.C. Brooks, D. Harris, G.H. Loneragan, A. Echeverry, T.E. Jackson, and J.M. Mehaffey. 2007. Microbial Risk Factors Associated With Condensation in Ready-To-Eat Processing Facilities. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Brashears, M.M., G.H. Loneragan, and M.F. Miller. 2007. Feedlot Dust as a Source of Cross-Contamination of *E. coli* O157 on Beef Feedlot Cattle Hides Prior to Shipping. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Clay, J.C., J.C. Brooks, M.M. Brashears, and M. Lyte. 2007. Methods for *Escherichia coli* O157:H7 detection in needle tenderized red meat. 60th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), Brookings, SD.

Collins, J.A., J.C. Brooks, M.M. Brashears, and M.F. Miller. 2007. The use of lactic acid meat cultures in a commercial beef processing facility – shelf life characteristics. 60th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), Brookings, SD.

Echeverry, A., T.C. Lowrance, G.H. Loneragan, M.M. Brashears, M.S. Brown, D.J. Kunze, T.M. Platt, S.E. Ives, H.M. Scott, and B. Norby. 2007. Ceftiofur Crystalline Free Acid Administration Reduces Susceptibility of Generic *E. coli* in Cattle. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Echeverry, A., D.G. Lakins, C.Z. Alvarado, J.C. Brooks, and M.M. Brashears. 2007. Quality and mold growth effects following microwave commercial sterilization on white enriched bread for military rations. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Flowers, S.L., D. Kang, M.M. Brashears, W.R. Henning, and C.N. Cutter. 2007. Microbiological baselines validate a multi-step antimicrobial intervention for red meat carcasses processed in very small meat establishments. 60th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), Brookings, SD.

Killinger-Mann, K.M., S.E. Dowd, J.A. Fralick, and M.M. Brashears. 2007. Changes in expression of virulence mechanisms in three related *Salmonella* Typhimurium mutants with increasing multi-drug resistance properties, as determined by microarray analysis [abstract]. American Society for Microbiology 107th General Meeting, May 21-25, 2007, Toronto, Canada.

Laury, A., G.H. Loneragan, T.M. Platt, L.A. Branham, S.E. Ives, M.J. Engler, D.U. Thomson, and M.M. Brashears. 2007. Changes in Indicator Populations due to Therapeutic Use of Injectable Antibiotics in Feedlot Cattle. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Lemons, L., M.T. Brashears, M. Jennings, G.H. Loneragan, and M.M. Brashears. 2007. Educational Needs of United States cattle producers regarding pre-harvest food safety interventions. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Lopez, A.M., G. Poullier, A.M. Luna, C.Z. Alvarado, L.D. Thomson, and M.M. Brashears. 2007. Carbon monoxide in MAP chicken breast fillets and drums as a food safety intervention to reduce pathogen loads and extend shelf-life. Joint Annual Meeting of the Poultry Science Association. July, 2007. San Antonio, TX.

Platt, T. M., G.H. Loneragan, L.A. Branham, M.J. Engler, D.U. Thomson, R.S. Singer, and M.M. Brashears. 2007. In-feed antimicrobial drug administration and antimicrobial susceptibility of non-type-specific *Escherichia coli*. 88th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 2-4, Chicago, IL.

Rekow, C.L., M.F. Miller, J.C. Brooks, and M.M. Brashears. 2007. Carcass mapping study that investigates microbial contamination throughout the slaughter and fabrication processes. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Rekow, C.L., M.M. Brashears, J.C. Brooks, and M.F. Miller. 2007. Implementation of Targeted Interventions to Control *Escherichia coli* O157:H7 after beef carcass microbiological mapping in a commercial abattoir. 60th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), Brookings, SD.

Stephens, T.P., G.H. Loneragan, E. Karunasena, and M.M. Brashears. 2007. Reduction of *Escherichia coli* O157 and *Salmonella* in Feces and on Hides of Feedlot Cattle using Various Doses of a Direct-Fed Microbial. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Stephens, T.P., G.H. Loneragan, L.M. Chichester, and M.M. Brashears. 2007. Prevalence and Enumeration of *Escherichia coli* O157 in Steers Receiving Various Strains of *Lactobacillus*-Based Direct-Fed Microbials; and Validation of Naturally Infected Bovine Feces with a Most-Probable Number / Immunomagnetic Separation Technique. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Stephens, T.P., D.J. Kunze, G.H. Loneragan, T.M. Platt, M.F. Miller, T.E. Besser, M. Koohmaraie, and M.M. Brashears. 2007. *Salmonella* in Harvest-Ready Cattle of the Texas High Plains. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

Tittor, A.W., M.G. Tittor, M.M. Brashears, J.C. Brooks, and M.F. Miller. 2007. Reduction of *Escherichia coli* O157:H7 and *Salmonella* using dry chilling in small processing plant environments. 60th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), Brookings, SD.

Wilderdyke, M.R., D.A. Smith, and M.M. Brashears. 2007. Evaluation of the Effect of Lactic Acid Bacterial isolates on the Growth of *Escherichia coli* O157:H7 and *Salmonella enteric* spbsp. Enteric on Alfalfa sprouts. 94th Annual Meeting of the International Association for Food Protection (IAFP), July 8-11, Orlando, FL.

2006

Branham, L.A., T.M. Platt, G.H. Loneragan, M.J. Engler, D.U. Thomson, R.S. Singer, and M.M. Brashears. 2006. Feedlot Production Practices and their Impact on Pre- and Post-Harvest Antimicrobial Susceptibility Patterns of Enteric Bacteria. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

Brooks, J.C., M.M. Brashears, M.F. Miller, A.R. Hoyle, J.D. Kellermeier, and J.M. Mehaffey. 2006. The Spoilage Characteristics of Ground Beef Packaged in High-Oxygen and Low-Oxygen Modified Atmosphere Packages. 59th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 18-21, Urbana-Champaign, IL.

Chichester, L.M., G.H. Loneragan, D.J. Kunze, T.M. Platt, L.L. Proffit, and M.M. Brashears. 2006. Oral administration of neomycin to feedlot cattle and susceptibility of *E. coli* and *Enterococcus*. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

Echeverry, A., G.H. Loneragan, L.A. Branham, and M.M. Brashears. 2006. Detection of *Escherichia coli* O157 in Bovine Fecal Pats by a Multiple Sampling Strategy. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

Harris, D., M.M. Brashears, G.H. Loneragan, K. Adams, A. Tittor, J. Kellermeier, M. Tittor, J.C. Brooks, J. Blanton, Jr., and M.F. Miller. 2006. Increase in total numbers of *E. coli* O157 and *Salmonella* on cattle hides as a result of dust generation during cattle loading. 59th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 18-21, Urbana-Champaign, IL.

Jennings, M., M.T. Brashears, S. Burris, K. Fritz, J. Rayfield, G.H. Loneragan, and M.M. Brashears. 2006. Determining the educational needs of cattle producers regarding pre-harvest food safety products and techniques. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

Jennings, M., M.T. Brashears, J. Boyce, S. Burris, G.H. Loneragan, and M.M. Brashears. 2006. An analysis of public perception and knowledge about the danger of *E. coli* O157:H7 in petting zoos. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia

Killinger-Mann, K.M., S.E. Dowd, M.M. Brashears, and J.R. Blanton Jr. 2006. Microarray analysis of a lactic acid stressed, multi-drug resistant mutant of *Salmonella* Typhimurium. 59th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 18-21, Urbana-Champaign, IL.

Killinger-Mann, K.M., B.D. San Francisco, M. Galyean, and M.M. Brashears. 2006. Growth characteristics and susceptibility to 1% lactic acid of nalidixic acid resistant mutants of *Salmonella* Typhimurium developed from a single wild-type strain. International Association of Food Protection, August 13-16, Calgary, Alberta, Canada.

Killinger-Mann, K.M. and M.M. Brashears. 2006. The importance of strain validation prior to experimental use of nalidixic acid-resistant *Salmonella* Typhimurium: alterations in serotype and multi-drug resistance. International Association of Food Protection, August 13-16, Calgary, Alberta, Canada.

Kunze, D.J., G.H. Loneragan, T.M. Platt, M.F. Miller, T.E. Besser, M. Koohmaraie, and M.M. Brashears. 2006. *Salmonella* in Harvest-Ready Cattle of the Texas High Plains. 87th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 3-5, Chicago, IL.

Kunze, D.J., G.H. Loneragan, H.M. Scott, M.S. Brown, G. Schuster, and M.M. Brashears. 2006. Impact of injectable antimicrobial drugs on the susceptibility of enteric bacteria in feedlot

cattle. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

Lakins, D., E. Echeverry, C. Alvarado, M.M. Brashears, and L. Thompson. 2006. Destruction of *Salmonella enteritidis* and quality of table shell eggs using microwave commercial sterilization PSA 85:100 (Suppl 1.) (Abstr)

Loneragan, G.H., D.R. Ware, M.M. Brashears. 2006. A meta-analysis on the impact of dietary supplementation with *Lactobacillus acidophilus* strain NP51 on *E. coli* O157 carriage by feedlot cattle. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

Loneragan, G.H. and M.M. Brashears. 2006. Reduction of VTEC Carriage in Cattle. 6th International Symposium on Shiga Toxin (Verocytotoxin) - Producing *Escherichia coli* Infections. VTEC. October 29 to November 1, 2006, Melbourne, Australia.

Lowrance, T.C., G.H. Loneragan, M.M. Brashears, M.S. Brown, D.J. Kunze, T.M. Platt, S. Ives, H.M. Scott, and B. Norby. 2006. Ceftiofur Crystalline Free Acid Administration and Susceptibility of Generic *E. coli* Recovered from Feedlot Cattle. 87th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 3-5, Chicago, IL.

Pitchiah, S., C.Z. Alvarado, and M.M. Brashears. 2006. Comparison of poultry processing conveyor belts for susceptibility to bacterial attachment and biofilm formation. PSA 85:97 (Suppl 1.) (Abstr)

Platt, T.M., G.H. Loneragan, M.M. Brashears, D.U. Thomson, H.M. Scott, B. Norby, and D.J. Kunze. 2006. In-feed administration of chlortetracycline and antimicrobial susceptibility of enteric bacteria. 87th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 3-5, Chicago, IL.

Platt, T.M., L.A. Branham, G.H. Loneragan, M.J. Engler, D.U. Thomson, R.S. Singer, and M.M. Brashears. 2006. In-Feed Antimicrobial Drug Use and Susceptibility of *Enterococcus* spp. and *Salmonella*. 87th Annual Meeting of the Conference of Research Workers in Animal Diseases, December 3-5, Chicago, IL.

Stephens, T.P., G.H. Loneragan, T.W. Thompson, and M.M. Brashears. 2006. Enumeration of *E. coli* O157 in Ground Beef, Beef Briskets, and Beef Shanks Using Most Probable Numbers (MPN) and Immunomagnetic (IMS) Techniques. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

Thompson, W., T. Stephens, G.H. Loneragan, and M.M. Brashears. 2006. Comparison of detection of *E. coli* O157 using immunomagnetic separation and ELISA assays in fecal, hide and beef samples. The 11th International Symposium for Veterinary Epidemiology and Economics, August 6-11, Cairns, Australia.

2005

Branham, L.A., M.M. Brashears, G.H. Loneragan, and A. Echeverry. 2005. Fecal Pat Sampling and Homogenation for Detection of *Escherichia coli* O157. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Branham, L., K. Mann, G.H. Loneragan, and M.M. Brashears. 2005. Antibiotic Resistance Patterns in *Escherichia coli* O157:H7 Isolates collected from 2001-2004. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Chichester, L.M., G.H. Loneragan, M.M. Brashears, T. Stephens, D.J. Kunze, T.M. Platt, L.L. Proffit, and D. Ware. 2005. Prevalence and enumeration of *E. coli* O157 in beef steers receiving various strains of direct-fed microbials. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Fluckey, W.M., G.H. Loneragan, and M.M. Brashears. 2005. Antibiotic resistance and cross contamination of *Enterococcus* isolated from live cattle, hides and carcasses. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Harris, D.D., M.M. Brashears, J.C. Brooks, and M.F. Miller. 2005. Application of Antimicrobial treatments in a commercial simulation to reduce *E. coli* O157:H7 and salmonella spp. In beef trim and ground beef. International Congress for Meat Science and Technology. August, Baltimore, MD.

Hoyle, A.R., L.D. Thompson, J.C. Brooks, and M.M. Brashears. 2005. Microbial Quality of Ground Beef with Added Lactic Acid Bacteria at Abusive and Refrigerated Temperatures Packaged in Modified Atmosphere and Traditional Packaging. International Congress for Meat Science and Technology. August. Baltimore, MD.

Killinger Mann, K. and M.M. Brashears. 2005. Multi-drug resistance in nalidixic acid resistant mutants of *Salmonella Typhimurium*. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Mann, J.E. and M.M. Brashears. 2005. Validation of Time and Temperature Values as Critical Limits for Ground Beef Processing and Storage – *Escherichia coli* O157:H7. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Reicks, A, M.M. Brashears, K.D. Adams, and M.F. Miller. 2005. Impact of transportation of feedlot cattle to the harvest facility on the prevalence of *E. coli* O157:H7, salmonella spp and total aerobic microorganisms. International Congress for Meat Science and Technology, August, Baltimore, MD.

Stephens, T.P., G.H. Loneragan, T.W. Thompson, A. Sridhara, L.A. Branham, S. Pitchiah, and M.M. Brashears. 2005. Distribution of *Escherichia coli* O157 and *Salmonella* spp. on hide surfaces, the oral cavity, and feces of feedlot cattle. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Stephens, T.P., G.H. Loneragan, T.W. Thompson, A. Sridhara, L.A. Branham, S. Pitchiah, and M.M. Brashears. 2005. Distribution of *Escherichia coli* O157 and *Salmonella* spp. on hide surfaces, the oral cavity, and feces of feedlot cattle. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Stephens, T.P., G.H. Loneragan, T.W. Thompson, A. Sridhara, L.A. Branham, S. Pitchiah, and M.M. Brashears. 2005. Comparison of immunomagnetic separation (IMS) and a commercial enzyme-linked immunosorbent assay (ELISA) for the detection of *Escherichia coli* O157 on hides of feedlot cattle. 92nd Annual Meeting of the International Association for Food Protection (IAFP), Baltimore, MD.

Stephens, T.P., G.H. Loneragan, T.W. Thompson, L.A. Branham, S. Pitchiah, and M.M. Brashears. 2005. Enumeration of *Escherichia coli* O157 in cattle feces Using immunomagnetic separation combined with most probable number techniques. International Congress for Meat Science and Technology, August, Baltimore, MD.

2004

Dahl, K, V. Sutton, C.P. Lyford, K.R. Pond, and M.M. Brashears. 2004. Potential legal ramifications from the development of pre-harvest food safety interventions in the beef industry. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Echeverry, A., G.H. Loneragan, M.M. Brashears, and B.W. Wagner. 2004. Non-uniform distribution of *E. coli* O157:H7 in feces and underestimation of carriage by feedlot cattle. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Echeverry, A., G.H. Loneragan, and M.M. Brashears. 2004. Survival of *Escherichia coli* O157:H7 in manure under different storage conditions. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Fluckey, W.M., M.M. Brashears, and G.H. Loneragan. 2004. The potential for cross-contamination traced by PFGE and the antibiotic susceptibility patterns of enteric bacteria recovered from feedlot cattle and their in plant carcasses. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Harris, K., M.F. Miller, and M.M. Brashears. 2004. Validation of multiple antimicrobial treatment to reduce *Escherichia coli* O157:H7 and *Salmonella* spp in beef trim and ground beef. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Harris, D.D., Z.L. Vineyard, J.C. Brooks, J. Blanton, M.M. Brashears, and M.F. Miller. 2004. Effect of sampling location on the prevalence of *Escherichia coli* O157:H7 on beef carcasses. 57th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 20-23, 2004, Lexington, KY.

Harris, K.A., M.M. Brashears, M.F. Miller, and K. Pond. 2004. Validation of antimicrobial treatments to reduce *Escherichia coli* O157:H7 and *Salmonella* in beef trim and ground beef. 57th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 20-23, 2004, Lexington, KY.

Killinger-Mann, K., M.M. Brashears, and L.M. Smith. 2004. Susceptibility of antibiotic resistant strains of *Salmonella* Typhimurium to lactic acid at 37°C. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Kuntz, D.J., G.H. Loneragan, M.M. Brashears, R.S. Singer, H.M. Scott, and T. Platt. 2004. Evaluation of antimicrobial drug susceptibility in enteric bacteria of cattle in response to administration of injectable antimicrobials. Conference of Research Workers in Animal Diseases Annual Meeting, November, Chicago, IL.

Loneragan, G.H. and M.M. Brashears. 2004. Use of retention pond water for dust abatement in a feedlot and impact on carriage of *E. coli* O157 and Salmonella. To be Conference of Research Workers in Animal Diseases Annual Meeting. November, Chicago, IL.

Mann, J.E. and M.M. Brashears. 2004. Evaluation of a peroxyacetic acid-based antimicrobial treatment for the reduction of *Escherichia coli* O157:H7 on beef trimmings. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Vineyard, Z.L., M.R. Miller, J.C. Brooks, J.R. Blanton, and M.M. Brashears. 2004. The effects of supplementing feedlot cattle with *Ascophyllum nodosum* on the retail shelf-life of inside round steaks. 57th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), June 20-23, 2004, Lexington, KY.

Younts-Dahl, S.M., G. Osborn, M.L. Galyean, J.D. Rivera, G.H. Loneragan, and M.M. Brashears. 2004. Reduction of *E. coli* O157 in finishing beef cattle by various doses of *Lactobacillus acidophilus* in direct-fed microbials. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Younts-Dahl, S.M., J.D. Rivera, P. Defoor, M.L. Galyean, G.H. Loneragan, and M.M. Brashears. 2004. Prevalence of *E. coli* O157 among finishing beef cattle supplemented with a *Lactobacillus*-based direct-fed microbial. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

Younts-Dahl, S.M., J.J. Cranston, J.D. Rivera, M.L. Galyean, G.H. Loneragan, and M.M. Brashears. 2004. Effects of feeding whole cottonseed on the prevalence of *Escherichia coli* O157 among finishing beef steers. 91st Annual Meeting of the International Association for Food Protection (IAFP), August 8-11, Phoenix, AZ.

2003

Elam, N.A., J.F. Gleghorn, J.D. Rivera, M.L. Galyean, M.M. Brashears, and S.M. Younts-Dahl. 2003. Effects of live cultures of *Lactobacillus acidophilus* (Strains 45 and 747) and *Propionibacterium freudenreichii* on performance, carcass and intestinal characteristics, and *Escherichia coli* O157:H7 shedding of finishing beef steers. Annual meeting of the ASAS/ASDA. Phoenix, AZ.

Flowers, L., M. Costello, P.M. Gray, D. Kang, M.M. Brashears, A. Echeverry, J.E. Mann, W.R. Henning, E.W. Mills, and C.N. Cutter. 2003. A microbiological profile of red meat carcasses processed in very small establishments in three geographical regions of the United States. 56th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA).

Fluckey, W.M., G.H. Loneragan, and M.M. Brashears. 2003. Antibiotic Susceptibility and Cross Contamination of Enteric Bacteria Isolated from Feedlot Cattle and Their Carcasses. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Loneragan, G.H. and M.M. Brashears. 2003. Avenues for pre-harvest control of *E. coli* O157 in cattle. 10th Triennial International Symposium for Veterinary Epidemiology and Economics, Nov. 17-21. Santiago, Chile.

Loneragan, G.H., M.M. Brashears, D.R. Ware, S. Younts-Dahl, and M.L. Galyean. 2003. Direct-fed microbials and pre-harvest risk reduction of *E. coli* O157. 10th Triennial International Symposium for Veterinary Epidemiology and Economics. Nov. 17-21. Santiago, Chile.

Loneragan, G.H., M.M. Brashears, and G. Dewell. 2003. Potential for Underestimation of *E. coli* O157:H7 Prevalence in Beef Feedlot Cattle. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Loneragan, G.H. and M.M. Brashears. 2003. Epidemiological Characteristics of *E. coli* O157 in cattle. 53rd Annual Southwest Conference on Diseases in Nature Transmissible to man. June 25-27. Amarillo, TX.

Loneragan, G.H., M.M. Brashears, and D.U. Thompson. 2003. Ecology and Feedlot Epidemiology of *E. coli* O157:H7. Presented to the Plains Nutrition Council. April 3-4. San Antonio, TX.

Mann, J.E., M.M. Brashears, and L.M. Smith. 2003. Validation of time and temperature values as critical limits for ground pork processing and storage. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Mann, J.E. and M.M. Brashears. 2003. Validation of time and temperature values as critical limits for pork fabrication and storage. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Mann, J.E. and M.M. Brashears. 2003. Evaluation of Hot Water Immersion for Reduction of *E. coli* O157:H7 on Beef Shanks. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Smith, L., J.E. Mann, and M.M. Brashears. 2003. Reduction of *E. coli* O157:H7 in refrigerated ground beef by *Lactobacillus* spp. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Stratton, J.E., R.W. Hutkins, and M.M. Brashears. 2003. Genotypic characterization by pulsed-field gel electrophoresis and antibiotic resistance of *Campylobacter* strains isolated from poultry litter. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Younts-Dahl, S, M.M. Brashears, M.L. Galyean, G.H. Loneragan, and N. Elam. 2003. Prevalence of *E. coli* O157 among finishing beef cattle supplemented with live cultures of *Lactobacillus* and *Propionibacterium*. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

Younts-Dahl, S, M.M. Brashears, M.L. Galyean, and G.H. Loneragan. 2003. Supplementing feedlot cattle diets with whole cottonseed to decrease the prevalence of *E. coli* O157:H7. 90th Annual Meeting of the International Association for Food Protection (IAFP), August 9-13. New Orleans, LA.

2002

Baumert, R., D.E. Burson, A.T. Waylan, E.A. Boyle, F.M. Aramouni, and M.M. Brashears. 2002. The effects on one-on-one HACCP assistance offered to meat and food processors in Nebraska, Kansas, South Dakota and Missouri. 55th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), July 28-30. Michigan State University

Brashears, M.M., M.L. Galyean, G.H. Loneragan, J.E. Mann and K.M. Killinger-Mann. 2002. Reduction of *E. coli* O157 in Beef Feedlot cattle with Direct-Fed Microbials. 89th Annual Meeting of the International Association for Food Protection (IAFP), July 1-3. San Diego, CA.

Harris, M., M.M. Brashears, and D. Smith. 2002. Evaluation of the Use of Lactic Acid Bacteria to Control Pathogens on Alfalfa Sprouts. 89th Annual Meeting of the International Association for Food Protection (IAFP), July 1-3. San Diego, CA.

Fluckey, W.M., M.M. Brashears, S.R. McKee, and M.X. Sanchez. 2002. Microbiological Profile of Air Chilled Chickens from Farm to Table. 89th Annual Meeting of the International Association for Food Protection (IAFP), July 1-3. San Diego, CA.

Stratton, J.E., R.W. Hutkins, M.M. Brashears, A.K. Benson, L. Durso, and S.R. McKee. 2002. Genotypic Characterization and Antibiotic Resistance of *Campylobacter* Strains Collected from a Single Poultry Farm over Four Seasons. Annual Meeting of the American Society for Microbiology.

Khaita, J.L., D.R. Smith, R.A. Moxley, S. Hinkley, L.L. Hungerford, G.E. Erickson, T.J. Klopfenstein, and M.M. Brashears. 2002. Clinical trials to test the effectiveness of cleaning pens, feeding competitive bacteria, or limiting dietary starch to reduce fecal shedding of *E. coli* O157:H7 by feedlot cattle. Presented at CRWAD. St. Louis, MO.

Phoon, N., S.R. McKee, and M.M. Brashears. 2002. Comparison Of Shelf Life And Microbial Profile Of Immersion-Chilled And Air-Chilled Broilers. 89th Annual Meeting of the International Association for Food Protection (IAFP), July 1-3. San Diego, CA.

S.R. McKee and M.M. Brashears. 2002. HACCP for Shell Egg Packing and Processing. 89th Annual Meeting of the International Association for Food Protection (IAFP), July 1-3. San Diego, CA.

2001

Amezquita, A., and M.M. Brashears. 2001. Competitive exclusion of *Listeria monocytogenes* in ready to eat pork products and impact on sensory properties. Annual meeting of the Institute of Food Technologists. New Orleans, LA.

Brashears, M.M., J. Stratton, and A. Amezquita. 2001. Validation of the Use of Antibiotic Resistant Strains of *Escherichia coli* O157:H7 and *Salmonella* spp. for Recovery of Injured Cells Subjected to Stress Conditions Encountered During Competitive Exclusion. 88th Annual Meeting of the International Association for Food Protection (IAFP), August 5-8. Minneapolis, MN.

Brashears, M.M., D. Burson, L. Boyle, F. Aramouni, J. Mann, and M. Murphy. 2001. Development and Evaluation of an Advanced HACCP Workshop for Meat Processors. 54th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), Indianapolis, IN.

Brashears, M.M., S. McKee-Hensarling, D. Burson, and J. Mann. 2001. Development of Generic HACCP plans for Egg Processors. Annual meeting of the Poultry Science Association, Indianapolis, IN.

Fluckey, W.M., M.X. Sanchez, M. Tamayo, A. Aguilar, S.R. McKee, and M.M. Brashears. 2001. In Plant Microbial Profile of Air Chilled Chickens, In Nebraska. Annual meeting of the Poultry Science Association, Indianapolis, IN.

Harris, M., M.M. Brashears, and D. Smith. 2001. Isolation, Identification, And Selection Of Lactic Acid Bacteria From Alfalfa Sprouts For Competitive Inhibition of Food-borne Pathogens. 88th Annual Meeting of the International Association for Food Protection (IAFP), August 5-8. Minneapolis, MN.

Mann, J.E., M.M. Brashears, D.E. Burson, and E. Dormedy. 2001. Validation of CCPs in HACCP Systems in Small Meat and Poultry Processing Plants in Nebraska. 54th Reciprocal Meat Conference (RMC) of the American Meat Science Association (AMSA), Indianapolis, IN.

Peters, D.L, G. Froning, and M.M. Brashears. 2001. Evaluation of Liquid Egg White Pasteurization Guidelines for Salmonella. 88th Annual Meeting of the International Association for Food Protection (IAFP), August 5-8. Minneapolis, MN.

Sanchez, M.X., W. Fluckey, and M.M. Brashears, E. Wallner-Pendleton, M. Tamayo, A. Aguilar, and S. McKee. 2001. Impact of farm practices on the microbial profile of processed broilers. Annual meeting of the Poultry Science Association. Indianapolis, IN.

2000

Amezquita, A., M.M. Brashears, and J. Trimble. 2000. Media Evaluation for Recovery of Injured Cells of *Escherichia coli* O157:H7 and *Salmonella* spp. 87th Annual Meeting of the International Association for Food Protection (IAFP), August 6-9. Atlanta, GA.

Amezquita, A. and M.M. Brashears. 2000. Isolation and Selection of Lactic Acid Bacteria from Meat Product to Inhibit Food-borne Pathogens. 87th Annual Meeting of the International Association for Food Protection (IAFP), August 6-9. Atlanta, GA.

Jaroni, D., J. Trimble, and M.M. Brashears. 2000. Development of a Competitive Exclusion Product to Reduce *Escherichia coli* O157:H7 in Cattle. 87th Annual Meeting of the International Association for Food Protection (IAFP), August 6-9. Atlanta, GA.

Sanchez, M.X., W. Fluckey, M.M. Brashears, and S.R. McKee. 2000. Antibiotic Resistance Pattern of *Campylobacter* spp. Isolated from Broilers Processed in Air and Immersion Chill Processing Facilities. 87th Annual Meeting of the International Association for Food Protection (IAFP), August 6-9. Atlanta, GA.

1999

Berberov, E., R. Moxley, R. Roscetti, M.M. Brashears, M. Scott, and D. Francis. 1999. Effect of Probiotic Bacteria on Translocation of Enterotoxigenic *Escherichia coli* in Gnotobiotic Piglets. 18th Conference of Research Workers in Animal Diseases. November 7-9. Chicago, IL.

Sanchez, M, S. McKee, and M.M. Brashears. 1999. Microbial Quality Comparisons of Commercially Processed Air-chilled and Immersion Chilled Broilers. Annual meeting of the Poultry Science Association, August 8-12. Fayetteville, AR.

Soylomez, G., D.A. Smith, M.M. Brashears, and S.L. Cuppett. 1999. Process and packaging modifications to improve the stability and safety of alfalfa sprouts. IFT annual Meeting. July 25. Chicago, IL.

1994-1997

Brashears, M.M. and S.E. Gilliland. 1994. Influence of harvest time on stability of cells of *Lactobacillus acidophilus* during frozen and subsequent refrigerated storage. Southern Association of Agricultural Scientists, Dairy Foods Division. Feb. 5-9, Nashville, TN.

Brashears, M.M. and S.E. Gilliland. 1997. Antagonistic action of cells of *Lactobacillus lactis* toward *Escherichia coli* O157:H7 on refrigerated raw chicken meat. Southern Association of Agricultural Scientists, Food Science and Human Nutrition Division. Feb 2-4, Birmingham, AL.

Nighswonger, B.D., M.M. Brashears, and S.E. Gilliland. 1995. Viability of *Lactobacillus acidophilus* and *Lactobacillus casei* during storage at 7°C in fermented milk products. Southern Association of Agricultural Scientists, Dairy Foods Division. January 29–February 1, New Orleans, LA.

Extension Publications

Brashears, M.M. and S.E. Gilliland. 1994. Survival of late exponential phase and stationary phase cells of *Lactobacillus acidophilus* at 7°C. Oklahoma State University, Animal Science Research Report. P 34-39.

Brashears, M.M., S.S. Reilly, and S.E. Gilliland. 1996. Inhibitory actions of *Lactobacillus lactis* on *Escherichia coli* O157:H7 during storage at 7°C in broth and on raw chicken meat. Oklahoma State University Animal Science Research Report. p. 51-55.

Brashears, M.M. and S.E. Gilliland. 1997. Influences of pH during growth of cholesterol from MRS by *Lactobacillus casei* and *Lactobacillus acidophilus*. Oklahoma State University Animal Science Research Report.

Brashears, M.M. 1999. Proactive Approaches to Evaluating Raw Materials. Food Testing and Analysis. Vol 5: 5. p. 22-23.

Brashears, M.M. 1999. "Chlorine Usage in Meat and Poultry Processing Facilities" in Use of Chlorine Based Sanitizers and Disinfectants in the Food Manufacturing Industry. Food Manufacturing Coalition.

Brashears, M.M. and D. Peters. Sampling Beef Carcasses for Process Control Verification. University of Nebraska Cooperative Extension Division NebGuide.

Brashears, M.M. and D. Peters. Sampling Pork Carcasses for Process Control Verification. University of Nebraska, Cooperative Extension Division NebGuide.

Burson, D., M.M. Brashears, and G. Cichy. 1999. Introduction to the principles of HACCP. Department of Communication and Information Technology, Electronic Media Section, University of Nebraska. Lincoln, NE. Available in English, Spanish, Chinese and Korean.

Nighswonger, B.D., M.M. Brashears, and S.E. Gilliland. 1995. Survival of cells of *Lactobacillus acidophilus* and *Lactobacillus casei* during refrigerated storage in fermented milk products. Oklahoma State University Animal Science Research Report. p. 48-54.

Sanchez, M.X., W. Fluckey, M.M. Brashears, and S.R. McKee. 2000. Impact of Air-Chilling on the Microbiological Safety of Poultry. University of Nebraska Poultry Report.

Vavak, L.D. and M.M. Brashears. 1999. "Chlorine Usage in Dairy Processing Facilities" in Use of Chlorine Based Sanitizers and Disinfectants in the Food Manufacturing Industry. Food Manufacturing Coalition.

M.S. Thesis

Brashears, M.M. 1992. Influence of harvest time on stability of cells of *Lactobacillus acidophilus* during frozen and subsequent refrigerated storage. Oklahoma State University, M.S. Thesis.

Ph.D. Dissertation

Brashears, M.M. 1997. Influence of pH on bile salt deconjugation and removal of cholesterol from broth by *Lactobacillus casei* and *Lactobacillus acidophilus*. Oklahoma State University, Ph.D. Dissertation.