

STATE
FUNDED
RESEARCH
PROJECTS

RESEARCH ANNUAL REPORT STATE FUNDED RESEARCH PROJECTS

PROJECT	RESEARCH AREA	RESEARCHER/INSTITUTION	DURATION/STATUS	TOTAL GRANT COOPERATORS
ARKANSAS				
Enhancing Lower-valued Beef Cut Quality, Shelf-life, Producing Artificial Marbling and levels of CLA in One Portion of Beef Conducive to Health	Product Enhancement	F.W. Pohlman, Ph.D. University of Arkansas	Ongoing	\$120,125
Value-added Effects on Dark-Cutting Beef	Product Enhancement	J. Apple, Ph.D. University of Arkansas	Ongoing	\$56,600.00
Factors Influencing the Ability of Vacuum-Packaged Beef to Bloom	Product Enhancement	J. Apple, Ph.D. University of Arkansas	Ongoing	\$63,275.00
Effect of Age Entering the Feedlot, Implants and Genotype on Carcass Quality	Product Enhancement	Paul Beck, Ph.D. University of Arkansas	Ongoing	\$49,573
IDAHO				
Biopreservation of Hot Dogs by Surface Application of Freeze-Dried Bacteriocin Preparations	Beef Safety	G. Yuksel, Ph.D. University of Idaho	Completed	\$38,175
Novel Factors for Vaccine Development that Affect E. coli O157:H7 Attachment to the Bovine Intestinal Tract	Beef Safety	C. Hovde-Bohach, Ph.D., S.A. Minnich, Ph.D. University of Idaho	Ongoing	\$87,580
Optimizing Meat Quality and Production Efficiency: Simultaneously Targeting Quality and Reducing Cost of Production	Product Enhancement	J. Ahola, Ph.D. University of Idaho	Ongoing	\$69,546
Changing Skeletal Muscle Characteristics in Steers with a Focus on End-product Meat Quality Evaluation: the Benefits of Early Versus Late Stage Ractopamine Supplementation	Product Enhancement	J. Ahola, Ph.D. University of Idaho	Ongoing	\$17,288
Effect of Sire Expected Progeny Difference for Percent Intramuscular Fat and Dam Parity on Intramuscular Fat Deposition of Offspring Over Time	Product Enhancement	C. Hunt, Ph.D. and T. Klein Skow, M.S. University of Idaho	Ongoing	\$36,355
Improving the Quality and Value of Dairy Market Cow Carcasses	Product Enhancement	J. Ahola, Ph.D. University of Idaho	Ongoing	\$22,109
IOWA				
Using a Combination of 25-hydroxyvitamin D3 and Vitamin E to Improve Beef Tenderness. Phase II	Product Enhancement	D. Beitz, Ph.D. Iowa State University	Completed	\$10,000
KANSAS				
Validation of Cleaning and Sanitizing Procedures for Beef Processing Equipment Involved in Needle Tenderization and Needle Injection	Beef Safety	J.L. Marsden, Ph.D. Kansas State University	Ongoing	\$45,500
Effects of Packaging Atmospheres and Injection Enhancement on Beef Instrumental Tenderness, Sensory Traits, and Display Color	Product Enhancement	M.E. Dikeman, Ph.D. Kansas State University	Ongoing	\$36,600
Antimicrobial Treatment of Beef Subprimals and Cuts Intended for Non-intact (Blade Tenderized or Formed) Processes Using Ultra Violet Light Energy	Beef Safety	J.L. Marsden, Ph.D. Kansas State University	Ongoing	\$42,500
Determination of the Effects of Supplementing High Levels of Dietary Vitamin A on Marbling, Fatty Acid Profile, USDA Quality Grade, and Retail Display Life of Fresh Beef from Early- and Traditional-Weaned Calves	Product Enhancement	M.E. Dikeman, Ph.D. Kansas State University	Ongoing	\$39,544

Antimicrobial Treatment of Beef Subprimals and Cuts Intended for Non-Intact (Blade Tenderized or Formed) Processes	Beef Safety	J.L. Marsden, Ph.D. Kansas State University	Completed	\$81,500
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MINNESOTA

The Effect of a High Protein, Starch-limited Diet on the Blood Glucose in Type 2 Diabetes	Nutrition	M.C. Gannon, Ph.D. and F.Q. Nuttal, M.D. VA Medical Center and University of Minnesota	Ongoing	\$25,000
Increasing Awareness of Drug Residue Avoidance Strategies with Veterinarians and Dairy Producers/Industry Leaders	Beef Safety	W. Hueston, DVM, B. Knust, DVM, and L. Schott University of Minnesota	Ongoing	\$13,375
The Effect of Dietary Calcium Level on Colon Carcinogenesis in Rats Fed Beef	Nutrition	D. Gallaher, Ph.D. and C. Sallany, Ph.D. University of Minnesota	Ongoing	\$75,259

NEBRASKA

Development of 3-D Digital Model of the Skeleton & Muscular Anatomy of the Beef Carcass including Several Learning Modules	Product Enhancement	S. Jones, Ph.D., V. Singh, Ph.D., A. Guru, Ph.D. University of Nebraska-Lincoln	Ongoing	\$37,000
Fatty Acid & Flavor Relationships with Ethanol Co-Products	Product Enhancement	C. Calkins, Ph.D. University of Nebraska-Lincoln	Ongoing	\$79,144
Muscle Specific Enzymes to Enhance Tenderness	Product Enhancement	C. Calkins, Ph.D. University of Nebraska-Lincoln	Ongoing	\$37,696

OKLAHOMA

Comparison of Biobullet Versus Traditional Injection Techniques on Tissue Damage and Tenderness in Beef Subprimals	Product Enhancement	D. Vanoverbeke, Ph.D., B. Morgan, Ph.D., C. Krehbiel, Ph.D. and D. Lalman, Ph.D. Oklahoma State University	Completed	\$41,500
Super-saturation Oxygen Packaging of Beef Originating from Dark-cutting Carcasses	Product Enhancement	B. Morgan, Ph.D. and D. Vanoverbeke, Ph.D. Oklahoma State University	Completed	\$29,400

SOUTH DAKOTA

Determining if Altering Feeding Program Could Improve Marbling, Flavor and Tenderness	Product Enhancement	R. Pritchard, Ph.D., D. Wulf, Ph.D., T. Machado, Ph.D. South Dakota State University	Completed	\$39,200
Comparing Three Types of Beef Facilities and their Effect on Meat Quality	Product Enhancement	D. Wulf, Ph.D., R. Pritchard, Ph.D., T. Machado, Ph.D. South Dakota State University	Completed	\$38,660
Improving the Quality and Value of Beef using a Total Quality Management System	Product Enhancement	R. Maddock, Ph.D., D. Wulf, Ph.D., C. Wright, Ph.D., E. Loe, Ph.D. South Dakota State University	Ongoing	\$102,750
Influence of Dietary Lipid Source on Quality	Product Enhancement	E. Loe, Ph.D., R. Pritchard, Ph.D., D. Wulf, Ph.D. South Dakota State University	Ongoing	\$22,420

Effect of Meat Aging on Light Scattering Properties	Product Enhancement	A. Weaver, Ph.D. South Dakota State University	Ongoing	\$56,200
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TEXAS

Validation of Trichloromelamine as an Effective Hide Wash Technology	Beef Safety	J. Blanton, Ph.D. Texas Tech University	Completed	\$30,631
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Identification of Threshold Levels for Warner-Bratzler Shear Force of Beef Value Cuts	Product Enhancement	J. Savell, Ph.D. Texas A&M University	Completed	\$30,000
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Survey of Strategies for Variation in Functional Properties of Chuck and Round Muscles from Fed and Cow Beef	Product Enhancement	J. Savell, Ph.D. Texas A&M University	Completed	\$30,000
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Impact of Ground Beef Packaging Systems and Temperature Abuse on the Safety and Quality of Ground Beef	Beef Safety	C. Brooks, Ph.D. Texas Tech University	Ongoing	\$21,082
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Marbling Attributes and Sensory Ratings of Beef Loins Resulting from Dietary Distillers Grains Inclusion in Combination with Two Corn Processing Methods	Product Enhancement	J. MacDonald, Ph.D. and S. Smith, Ph.D. Texas Ag Experiment Station	Ongoing	\$23,197
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Bovine Genome Sequencing	Product Enhancement	Baylor College of Medicine	Completed	\$300,000
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Tenderness, Flavor and Yield Assessments of Dry Aged Beef	Product Enhancement	J. Savell, Ph.D. Texas A&M University	Ongoing	\$30,000
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WASHINGTON

Seattle Tacoma Consumer Beef Index Wave 1&2	Market Research	Pelegrin Gray Research, Inc.	Completed	\$10,800
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