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## **EDUCATION**

2000	<u>Doctor of Philosophy</u> in Animal Science, Texas A&M University
1997	<u>Master of Science</u> in Animal Science, Texas Tech University
1994	<u>Bachelor of Science</u> in Animal Science, Texas Tech University

## **EMPLOYMENT AND PREVIOUS EXPERIENCE**

2003 – present	<b>Assistant Professor, Texas Tech University</b> Position involves a teaching (50%) and research (50%) appointment in the Department of Animal and Food Sciences and the International Center for Food Industry Excellence. Teaching program involves courses taught to undergraduate and graduate students, as well as advising. Research program focuses on value-added meat products, meat packaging systems, food safety, and meat palatability.
2000 – 2002	<b>Assistant Professor</b> , Oklahoma State University
1999	<b>Graduate Lecturer</b> , Texas A&M University.
1997 – 1998	<b>Graduate Teaching and Research Assistant</b> , Texas A&M University
1995 – 1997	<b>Graduate Teaching and Research Assistant</b> , Texas Tech University
1993 – 1995	<b>Veterinary Technician</b> , Brillhart Veterinary Clinic
1992	<b>Quality Control</b> , IBP, Inc.
1986 – 1991	<b>Work Assistant</b> , Bar M Cattle Co., Meadow, TX.

## **RESEARCH ACTIVITIES**

Research has focused on adding value to beef products through product enhancement, improved uniformity and consistency, manipulation of underutilized muscles for novel steak and roast cuts, and application of management schemes to maximize efficiency and palatability. Moreover, research has explored the effects of package type and package characteristics on the shelf life and safety of meat products.

### **Extramural Funding**

1. M.M. Brashears, C. Alvarado, T. Brashears, J.C. Brooks, J.R. Blanton, J. Boyce, L. Hoover, M.F. Miller, B. Shriver, L. Thompson. 2005 - 2006. *Center for Food Industry Excellence*. USDA – Federal Administration Research Grants. \$811,000
2. M.M. Brashears, C. Alvarado, T. Brashears, and J.C. Brooks. 2005. *Verification of Microwave Technology for the Elimination of Food-Borne Pathogen in Whole Shell Eggs and The Development of New Application in the USA Food Industry*. ITACA. \$55,711

3. Blanton, J.R., M.M. Brashears, M.F. Miller, and J.C. Brooks. 2005. *Validation of Trichloromelamine as an Effective Hide Wash Technology*. Texas Beef Council. \$61,262
4. Miller, M.F., M.M. Brashears, J.C. Brooks and J.R. Blanton, Jr. 2005. *Effects of Dust Cloud Contamination on E. coli O157:H7 and Salmonella During Cattle Transport*. National Cattlemen's Beef Association. \$68,725
5. Brooks, J.C. 2005. *National Beef Tenderness Survey – 2005*. National Cattlemen's Beef Association and Texas A&M University. \$8,000
6. Miller, M.F., J.C. Brooks, and J.R. Blanton. 2005. *2005 USA/Australia Consumer Study*. Meat and Livestock Australia. \$394,480
7. Brooks, J.C. 2004. *Tenderness Evaluation of Nebraska Beef Meat Products*. Nebraska Beef of Omaha, NB. \$5,400
8. Brooks, J.C. 2004. *Departmental Allocation of HEAF Monies – Burst Tank*. Texas Tech University, College of Agricultural Sciences and Natural Resources. \$4,000
9. Brashears, M.M. and J.C. Brooks. 2004. *An Evaluation of the Color Masking Ability of Lactic Acid Bacteria in Ground Beef Packaged in Traditional and Modified Atmosphere Packages*. Nutrition Physiology Corporation. \$23,621
10. Miller, M.F., J.C. Brooks and J.R. Blanton, Jr. 2004. *Romosinuano Beef Cattle Study*. USDA ARS STARS. \$65,000
11. Brashears, Brooks, Blanton, Alvarado, Boyce, Hoover, Miller, and Thompson. 2004-2005. *International Center for Food Industry Excellence*. USDA – Federal Administration Research Grants. \$207,498
12. J.C. Brooks. 2004. *Optimization Guide for Value-Added Beef Cuts*. National Cattlemen's Beef Association. \$25,000
13. M.F. Miller, M.M. Brashears, J.C. Brooks, and J.R. Blanton, Jr. 2004-2005. *Impact of Transportation of Feedlot Cattle to the Harvest Facility on the Prevalence of E. Coli O157:H7 and Salmonella spp.* National Cattlemen's Beef Association. \$79,640
14. M.F. Miller, J.C. Brooks, and J.R. Blanton, Jr. 2004. *Evaluation of the Use of Dentition and Skeletal Ossification as a Measure of Cattle Age*. National Cattlemen's Beef Association. \$175,000
15. M.F. Miller, J.C. Brooks, and J.R. Blanton, Jr. 2004. *Meat Case Composite Study*. National Pork Board. \$32,570
16. J.C. Brooks and S.P. Jackson. 2004-2005. *Performance Evaluation, Carcass Characterization, and Palatability Assessment of Hair Sheep*. Texas Hair Sheep Association. \$64,923
17. M.L. Galyean and J.C. Brooks. 2003-2004. *Performance, Carcass Characteristics, and Retail Shelf Life and Shear Force of Beef Steaks from Cattle Fed Whole or Pelleted Cottonseed*. Buckeye Technologies and Cotton Incorporated. \$37,692.50
18. J.C. Brooks, M.F. Miller, and T.M. Montgomery. 2003-2004. *Injection Site Lesions in Beef Chuck Muscle from Cattle Injected with Various Vaccinations*. Intervet Inc. \$10,000
19. M.F. Miller and J.C. Brooks. 2004. *Consumer Evaluation of Beef Strip Loin Steaks Enhanced with Proprietary Solutions*. Tyson Fresh Meats. \$36,150
20. C.Z. Alvarado, J.C. Brooks, J.R. Blanton, Jr. and M.F. Miller. 2004. *Improving Water Holding Capacity in Poultry Products Without the Use of Phosphates*. Marks and Spenser, London, England. \$8,000
21. J.C. Brooks. 2003. *Fatty Acid Composition of Beef from Animals Fed CottonFlo and FuzZpellet*. Cotton INC. \$3,450
22. M.F. Miller, M.M. Brashears, J.C. Brooks, and J.R. Blanton, Jr. 2003-2004. *Feeding Tasco-14 to Test its Capability to Reduce Levels of E. Coli O157:H7 in Cattle Feces, Hides and Carcasses*. Caprock Industries. \$51,756

23. M.F. Miller, M.M. Brashears, J.C. Brooks, and J.R. Blanton, Jr. 2003-2004. *Evaluate Efficacy of Feedlot Water Chlorination for Reduction of E. Coli O157:H7 on Cattle Hides in the Packing Plant*. Caprock Industries. \$41,633
24. M.F. Miller, M.M. Brashears, J.C. Brooks, and J.R. Blanton, Jr. 2003-2004. *Effects of 7-day Ascophyllum nodosum Supplementation on Performance and Pathogenic Bacterial Shedding*. Texas Cattle Feeders Association. \$31,624
25. Brashears, Brooks, Blanton, Alvarado, Boyce, Hoover, Miller, and Thompson. 2003-2004. *International Center for Food Industry Excellence*. USDA – Federal Administration Research Grants. \$232,252
26. J.C. Brooks. 2003. *Extramural Research Fund Travel Award*. Texas Tech University – Office of Research Services. \$604.75
27. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2002-2003. *Can Beef Lean Color Originating from Dark-Cutting Carcass be Improved by “Super-Saturation” Oxygen Packaging?* National Cattlemen’s Beef Association. \$32,000
28. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2002-2003. *Use of a Carbon Monoxide Packaging System In Improving Retail Characteristics of “Compromised” Beef Cuts*. National Cattlemen’s Beef Association. \$37,150
29. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2002-2003. *Enhancement of Beef Subprimals Prior To Aging and Retail Display*. National Cattlemen’s Beef Association. \$33,750
30. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2000-2001. *Farmland National Beef Value-Added Beef Products*. Farmland National Beef. \$66,390
31. J.C. Brooks, J.B. Morgan, and F.K. Ray. 2001-2002. *An Economic Assessment of Value Added Meat Products Utilizing Beef Chuck from Various USDA Quality Grades*. National Cattlemen’s Beef Association and Oklahoma Beef Industry Council. \$71,000
32. J.C. Brooks, J.B. Morgan, and F.K. Ray. 2002. *Novel Fabrication Methods of the Sirloin*. National Cattlemen’s Beef Association. \$64,000
33. J.C. Brooks, S. Gilliland, C. DeWitt, and D. Sigfuson. 2002-2004: *Adding Value to the Oklahoma Pork Industry Through By-product Utilization, Anti-Microbial Intervention, Product Enhancement and Improved Pork Quality Attributes*. Oklahoma State University, Food and Agricultural Products Research and Technology Center Research Initiative Program. \$42,000
34. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2000-2001. *The Use of Activated Lactoferrin as a Microbial Blocking Agent*. Farmland National Beef. \$25,800.00
35. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2000-2001. *A Risk Assessment: Impact of Carcass Maturity on Tenderness Ratings of Beef From Premium Choice Quality Programs*. Excel Corporation. \$19,970
36. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2001-2002. *The Effect of DNA Marker Selection for the Rendament Napole Gene, and PreHarvest Epinephrine Inoculation on Technological and Subjective Pork Quality Evaluation in Hampshire-Sired Pigs*. Oklahoma Pork Council. \$9,670
37. J.B. Morgan, G. Kranzler, J. Subiah, and F.K. Ray. 2001-2002. *Prediction of Beef Tenderness*. Oklahoma Beef Industry Council. \$24,500
38. J.B. Morgan, J.C. Brooks, and F.K. Ray. 2000-2001. *A Shelf-Life Assessment: Influence of Versatray® on Retail Stability and Consumer Preference of Beef Cuts in Case-Ready Programs*. Eastman Chemical Co. \$23,460
39. G. Kranzler, J. Subiah and J.C. Brooks. 2002-2003. *Non-Destructive Methods for Predicting Beef Tenderness*. Oklahoma State University, Food and Agricultural Products Research and Technology Center Research Initiative Program. \$40,000

40. C. Krehbiel and J.C. Brooks. 2000-2001. *Effect of Supplementing AGRADO™ Antioxidant on Feedlot Performance and Carcass Characteristics of Beef Steers and Shelf Life on Beef*. Solutia, INC.
41. Graduate Student collaborator (written with Jeff Savell, PhD): *National Beef Tenderness Survey - 1998*. National Cattlemen's Beef Association. \$135, 000.
42. J.C. Brooks. *Perimysium thickness as an indicator of beef tenderness*. Office of Graduate Studies, Texas A&M University.

### **Proposals Pending**

1. Brooks, J.C. 2005. *Capital Equipment Acquisition for Teaching, Research, and Outreach Activities Using HEAF Monies*. Texas Tech University, Department of Animal and Food Sciences. \$30,000
2. Brooks, J.C., M.F. Miller and J.R. Blanton, Jr. 2004. *The Use of Calcium Chloride in Enhanced Beef Intended for Modified Atmosphere, Case-Ready Systems*. Texas Beef Council. \$31,915
3. Brooks, J.C., M.F. Miller, M.M. Brashears, and J.R. Blanton, Jr. 2004. *Effect of CO<sub>2</sub> in Modified Atmosphere Packaging on Surface Moisture, Aerobic Plate Counts, and Oxidative Rancidity of Enhanced Beef Cuts*. National Cattlemen's Beef Association. \$86,894
4. Brooks, J.C., M.M. Brashears, J.R. Blanton, Jr., and M.F. Miller. 2004-2005. *Modified Atmosphere Packaging and Temperature Abuse Effects on Listeria monocytogenes in Ready to Eat Pork Products*. American Meat Institute Foundation. \$75,968.
5. Brooks, J.C., M.F. Miller, and M.M. Brashears. 2004. *Experimental Use of Novel Gases to Improve Shelf Stability and Consumer Acceptance in Beef Strip Loin Steaks*. Texas Beef Council. \$34,852.
6. Brooks, J.C., M.F. Miller, J.R. Blanton, Jr., and M.M. Brashears. 2004. *The Effect of Three Package Types on the Retail Shelf Life of Value-Added Muscles from the Round and Chuck*. National Cattlemen's Beef Association. \$134,268
7. Brashears, M.M., L. D. Thompson, C.Z. Alvarado, and J.C. Brooks. *Validation of Chili's Life*. Brinker International. At least \$24, 987.
8. Brashears, M.M. and J.C. Brooks. 2004. *Retail Shelf Life and Sensory Characteristics of Beef Steaks and Ground Beef Patties Treated with Ozone-Enriched Water*. DEL Ozone of San Luis Obispo, CA. \$12,883.
9. Alvarado, C.Z., J.C. Brooks and L.D. Thompson. 2004. *The Effect of Modified Atmosphere Packaging on the Quality and Safety of Eggs*. US Poultry and Egg Association. \$31,962
10. Miller, M.F., J.C. Brooks, J.R. Blanton, Jr., M.M. Brashears. 2004. *Effect of Vacuum and Modified Atmosphere Aging on the Survival of Salmonella spp. and E. Coli O157:H7 on Beef Subprimals and Ground Beef*. Texas Beef Council. \$89,000
11. Miller, M.F., J.C. Brooks, J.R. Blanton, Jr., M.M. Brashears. 2004. *Effect of Spray Chilling vs. Dry Chilling Followed by Aging on the Survival of Salmonella spp. and E. Coli O157:H7 on Wet or Dry Aged Beef Briskets*. Texas Beef Council. \$50,500

### **Publications**

#### Peer-Reviewed Journal Articles

1. Brooks, J.C., and J. W. Savell. 2004. *Perimysium thickness as an indicator of beef tenderness*. Meat Sci 67(2):329-334.

2. Belew, J.B., J.C. Brooks, D. R. McKenna and J.W. Savell. 2003. *Warner-Bratzler shear evaluations of forty bovine muscles*. Meat Sci. 64(4):507-512.
3. Barham, B.L., J.C. Brooks, J.R. Blanton, Jr., A.D. Herring, M.A. Carr, C.R. Kerth, and M.F. Miller. 2003. *Effects of Growth Implants on Consumer Perceptions of Meat Tenderness in Beef Steers*. J. Anim. Sci. 81:3052-3056.
4. Elam, A.T., J.C. Brooks, F.K. Ray and J.B. Morgan. 2003. *Consumer and trained sensory evaluations of muscles isolated for the beef chuck and round*. J. Anim. Sci. (submitted 3-18-03)
5. Elam, A.T., J. C. Brooks, F.K. Ray and J.B. Morgan. 2003. *Shear force determination and yield data of muscles isolated for the beef chuck and round*. J. Anim. Sci. (submitted 3-18-03)
6. McKenna, D.R., D.L. Roeber, P.K. Bates, T.B. Schmidt, D.S. Hale, D.B. Griffin, J.W. Savell, J.C. Brooks, J.B. Morgan, T.H. Montgomery, K.E. Belk, and G.C. Smith. 2002. *National Beef Quality Audit-2000: Survey of Targeted Cattle and Carcass Characteristics Related to Quality, Quantity, and Value of Fed Steer and Heifers*. J. Anim. Sci. 80:1212-1222.
7. Karges, K., J.C. Brooks, D.R. Gill, J.E. Breazile, F.N. Owens, and J.B. Morgan. 2001. *Effects of Supplemental Vitamin D on Feed Intake, Carcass Characteristics, Tenderness, and Muscle Properties of Beef Steers*. J. Anim. Sci. 79:2844-2850.
8. Kerth, C. K., M. A. Carr, C. B. Ramsey, J. C. Brooks, R. C. Johnson, J. E. Cannon, and M. F. Miller. 2001. *Vitamin-mineral supplementation and accelerated chilling effects on quality of pork from pigs that are monomutant or noncarriers of the halothane gene*. J. Anim. Sci. 79:2346-2355.
9. McGee, M. R., J. B. Morgan, F. K. Ray, and J. C. Brooks. 2001. *Effect of injection of sodium chloride, sodium tripolyphosphate, and sodium lactate on Warner-Bratzler shear and sensory characteristics of pre-cooked inside round roasts*. Meat Science 64 (3):273-277.
10. Brooks, J. C., J. B. Belew, D. B. Griffin, B. L. Gwartney, D. S. Hale, W. R. Henning, D. D. Johnson, J. B. Morgan, F. C. Parrish, Jr., J. O. Reagan, and J. W. Savell. 2000. *National Beef Tenderness Survey - 1998*. J. Anim. Sci. 78:1852-1860.
11. Swatland, H. J., J. C. Brooks, and M. F. Miller. 1998. *Possibilities of predicting taste and tenderness of broiled beef steaks using an optical-electromechanical probe*. Meat Sci. 50:1-12.

#### Abstracts and Proceedings

1. Hoyle, A.R., M.M. Brashears and J.C. Brooks. 2005. *The Effect of Lactic Acid Bacteria, Rosemary Oleoresin and Package Type on the Spoilage of Temperature-Abused Ground Beef*. Submitted to International Association for Food Protection for consideration at the 92<sup>nd</sup> Annual IAFP meeting in Baltimore, Maryland
2. Horne, W.J., J.C. Brooks, S.W. Coleman, W.A. Phillips, D.G. Riley, C.C. Chase, and M.F. Miller. 2004. *Characterization of Romosinuano breeding on palatability traits and retail shelf life of beef steaks*. J. Anim. Sci. 82: Suppl. 1, p 18 – M74.
3. Coleman, S.W., D.G. Riley, C.C. Chase, Jr., W.A. Phillips, W.J. Horne, and J. H. Byrd. 2004. *Evaluation of Romosinuano as straightbreds and crossbreds with Angus and Brahman: carcass traits*. 2004. J. Anim. Sci. 82: Suppl. 2, p 5 - #19.
4. Horne, W.J., J.C. Brooks and M.F. Miller. 2004. *Evaluation of two colorimeters: A shelf life study of multiple color measurements on beef steaks*. 57<sup>th</sup> Annual Reciprocal Meat Conference, University of Kentucky, Poster Abstract # 3.

5. Vineyard, Z.L., M.F. Miller, J.C. Brooks, J.R. Blanton, Jr., and M.M. Brashears. 2004. *The effects of supplementing feedlot cattle with ascophyllum nodosum on the retail shelf life of inside round steaks*. 57<sup>th</sup> Annual Reciprocal Meat Conference, University of Kentucky, Poster Abstract # 20.
6. Horne, W.J., J.C. Brooks, J.R. Blanton, and M.F. Miller. 2004. *Correlation between objective and subjective color evaluations of beef steaks during retail display using multiple instruments*. 57<sup>th</sup> Annual Reciprocal Meat Conference, University of Kentucky, Poster Abstract # 31.
7. Leheska, J.M., M.F. Miller, J.C. Brooks, and J. Boyce. 2004. *The effects of enhancing precooked breakfast sausage with fruit puree on nutrient values and sensory attributes*. 57<sup>th</sup> Annual Reciprocal Meat Conference, University of Kentucky, Poster Abstract # 50.
8. Harris, D.D., Z.L. Vineyard, J.C. Brooks, J.R. Blanton, M.M. Brashears, and M.F. Miller. 2004. *Effect of sampling location on the prevalence of Escherichia coli O157:H7 on beef carcasses*. 57<sup>th</sup> Annual Reciprocal Meat Conference, University of Kentucky, Poster Abstract # 63.
9. Palmore, W.C., D.R. Woerner, K.D. Adams, M.F. Miller and J.C. Brooks. 2004. *Efficacy of feedlot water chlorination for reduction of E. coli O157:H7 on cattle hides in the packing plant*. 57<sup>th</sup> Annual Reciprocal Meat Conference, University of Kentucky, Poster Abstract # 65.
10. Woerner, D.R., K.R. Underwood, D.M. Cox, W.J. Horne, Z.L. Vineyard, J.C. Brooks, and M.F. Miller. 2004. *Effects of conventional spray chilling versus dry air chilling on beef trim on E. coli O157:H7 and Salmonella*. 57<sup>th</sup> Annual Reciprocal Meat Conference, University of Kentucky, Poster Abstract # 71.
11. Jaks, M.W., J.C. Brooks, W.J. Horne, K.D. Adams, M.F. Miller, T.H. Montgomery, L.G. Garcia, L.D. Unruh, W.T. Nichols and J.P. Hutcheson. 2004. *Incidence of Injection-site Lesion Development in Beef Chuck Steaks Packaged in a High-oxygen Modified Atmosphere*. In: Proc. 57<sup>th</sup> Reciprocal Meat Conf., Lexington, KY. (Abstr. #32).
12. Brooks, J. C., J. B. Belew, D. B. Griffin, B. L. Gwartney, D. S. Hale, W. R. Henning, D. D. Johnson, J. B. Morgan, F. C. Parrish, Jr., J. O. Reagan, and J. W. Savell. 1999. *National Beef Tenderness Survey - 1998*. In: Proc. 52nd Reciprocal Meat Conf., Stillwater, OK. p 136. (Abstr.)
13. Brooks, J. C., M. F. Miller, A. D. Herring, and C. B. Ramsey. 1997. *Conception to consumer: Genetic selection of sires for superior carcass and palatability traits to improve quality and consistency of Beef*. In: Proc. 50th Reciprocal Meat Conf., Ames, Iowa. p 179. (Abstr.)
14. Kerth, C. R., M. A. Carr, J. C. Brooks, M. F. Miller, and C. B. Ramsey. 1997. *Reducing the incidence of PSE pork in pigs that are monomutant for the halothane gene using vitamin-mineral supplementation and accelerated chilling*. In: Proc. 50th Reciprocal Meat Conf., Ames, Iowa. p 167. (Abstr.)
15. Carr, M. A., C. R. Kerth, M. F. Miller, D. U. Thomson, R. L. Preston, J. C. Brooks, and C. B. Ramsey. 1996. *Carcass characteristics, calcium-dependent protease activity, and Warner-Bratzler shear values of muscle from steers implanted 28 d before slaughter*. In: Proc. 50th Reciprocal Meat Conf., Provo, Utah. p 192. (Abstr.)
16. Milligan, S. D., M. F. Miller, C. N. Oats, C. B. Ramsey, and J. C. Brooks. 1996. *Calcium chloride injection and degree of doneness effects on the sensory characteristics of beef inside round roasts*. J. Anim. Sci. 74(Suppl. 1):158 (Abstr).
17. Brooks, J. C., J. B. Belew, D. B. Griffin, B. L. Gwartney, D. S. Hale, W. R. Henning, D. D. Johnson, J. B. Morgan, F. C. Parrish, Jr., J. O. Reagan, and J. W. Savell. 1999. *National Beef Tenderness Survey - 1998*. Poster prepared for General Poster Session at 52nd Reciprocal Meat Conf., Stillwater, OK.

18. Milligan, S. D., M. F. Miller, C. N. Oats, C. B. Ramsey, and J. C. Brooks. 1996. *Calcium chloride injection and degree of doneness effects on the sensory characteristics of beef inside round roasts*. Paper presented at American Society of Animal Science meetings.

### Technical Articles

1. Payne, K.P., J.C. Brooks, J.B. Morgan and F.K. Ray. 2002. *The Effect of Fresh and Frozen Storage on Palatability, Oxidative Rancidity, and Color of Modified Atmosphere Packaged Beef Steaks*. Okla. Agri. Exp. Sta.
2. Elam, A.T., J.C. Brooks, J.B. Morgan and F.K. Ray. 2002. *Consumer Evaluation of Value Added Beef From The Chuck and Round*. Okla. Agri. Exp. Sta.
3. Elam, A.T., J.C. Brooks, J.B. Morgan and F.K. Ray. 2002. *Trained Sensory Evaluation of Value Added Beef From The Chuck and The Round*. Okla. Agri. Exp. Sta.
4. Elam, A.T., J.C. Brooks, J.B. Morgan and F.K. Ray. 2002. *Shear Force Determination of Value Added Beef From The Chuck and The Round*. Okla. Agri. Exp. Sta.
5. Elam, A.T., J.C. Brooks, J.B. Morgan and F.K. Ray. 2002. *Yield and Fabrication Time For Value Added Beef From The Chuck and The Round*. Okla. Agri. Exp. Sta.
6. Sawyer, J., J.C. Brooks, L.L. Locke and G.Q. Fitch. 2002. *Utilization of Enhancement and a Microbial Blocking Agent on Palatability and Shelf Life Characteristics of Lamb Retail Cuts*. Okla. Agri. Exp. Sta.
7. Charmasson, K.B., W.R. Loyd, J.C. Brooks, F.K. Ray and J.B. Morgan. 2002. *Influence of Ceftiofur Sodium Bio-Bullet Administration on Tenderness and Tissue Damage in Beef Round Muscle*. Okla. Agri. Exp. Sta.
8. Locke, L.L., J.B. Morgan, J.C. Brooks, and F.K. Ray. 2002. *The Influence of Activated Lactoferrin as a Microbial Blocking Agent on Sensory and Shelf Life Characteristics of Case-Ready Fresh Beef*. Okla. Agri. Exp. Sta.
9. McGee, M.R., K.L. Henry, F.K. Ray, J.C. Brooks and J.B. Morgan. 2002. *Injection of Sodium Chloride, Sodium Tripolyphosphate, and Sodium Lactate Improves Warner-Bratzler Shear and Sensory Characteristics of Pre-Cooked Inside Round Roasts*. Okla. Agri. Exp. Sta.
10. Choat, W. T., D. R. Gill, C. R. Krehbiel, J. B. Morgan, J. C. Brooks, and R. L. Ball. 2001. *Effect of implanting on performance and carcass characteristics of finishing steers*. Okla. Agri. Exp. Sta. P986. Available: <http://www.ansi.okstate.edu/research/2001rr>. Accessed: June 25, 2002.

### Research Final Reports

1. Brooks, J.C., L.A. Quinn, and K.D. Adams. 2004. *Tenderness Evaluation of Nebraska Beef Meat Products*. A final report submitted to Nebraska Beef of Omaha, NB.
2. Brooks, J.C. 2004. *Optimization Guide for Value-Added Beef Cuts*. A final report submitted to National Cattlemen's Beef Association.
3. Alvarado, C.Z., J.C. Brooks and J.R. Blanton, Jr. 2004. *Improving Water Holding Capacity in Turkey Lobes Without the use of Phosphates*. A final report submitted to Marks and Spencer of London.
4. Brooks, J.C., M.F. Miller, C.Z. Alvarado, B.R. Barham, K.D. Adams. 2003. *Consumer and Trained Panel Evaluation of Beef Strip Loin Steaks Enhanced with Proprietary Solutions*. A final report submitted to Tyson Fresh Foods.
5. Brooks, J.C., and W.J. Horne. 2003. *The Effect of CottonFlo® and FuzZpellet® on the Fatty Acid Methyl Ester Composition of USDA Choice and Select Beef Steaks*. A final report submitted to Cotton Incorporated, Agreement Number 03-417.

6. Blanton, J.B., Jr., J.C. Brooks, and M.F. Miller. 2003. *Effects of 7-day Tasco-14 Supplementation on Performance and Pathogenic Bacterial Shedding*. A final report submitted to Caprock Industries.
7. Montgomery, T., J.C. Brooks, W.J. Horne, and K.D. Adams. 2003. *Effects of Various Vaccines on the Development of Injection Site Discoloration*. A final report submitted to Intervet.
8. Brooks, J.C., F.K. Ray and J.B. Morgan. 2002. *Novel Fabrication Methods of the Sirloin*. A research report submitted to National Cattlemen's Beef Association for the Department of Animal Science at Oklahoma State University.
9. Brooks, J.C., A.T. Elam and J.B. Morgan. 2002. *Research Report: Value Added Grass Fed Beef*. A report to the Wyatt Family from the Department of Animal Science at Oklahoma State University.
10. Elam, A.T., J.C. Brooks and J.B. Morgan. 2002. *A Muscle Profile of Value Added Beef From the Chuck and Round*. A report to National Cattlemen's Beef Association from the Department of Animal Science at Oklahoma State University.
11. Brooks, J.C., and J. B. Morgan. 2001. *Farmland national beef value-added beef products*. A report to Farmland National Beef from the Department of Animal Science, Oklahoma State University, Stillwater.
12. Kranzler, G., J. Subbiah, J.B. Morgan, and J.C. Brooks. *Oklahoma State University Near Infrared Tenderness System*. A report submitted to Oklahoma Beef Industry Council from the Departments of Biosystems and Agricultural Engineering and Animal Science, Oklahoma State University.
13. Brooks, J. C., J. L. Montgomery, L. L. Behrends, M. A. Carr, C. R. Kerth, M. F. Miller, C. B. Ramsey, S. P. Jackson. 1998. *Conception to Consumer - A beef cattle tenderness progeny test characterization*. A report to the National Cattlemen's Beef Association from the Department of Animal Science, Texas Tech University, Lubbock.
14. Brooks, J. C. and J. W. Savell. 1998. *The effect of Holstein and native crossbred breed types within USDA choice and select quality grades on Warner-Bratzler shear force values of top loin steaks*. A report to Sunland Beef Co. from the Meat Science Section, Department of Animal Science, Texas A&M University, College Station.

#### Thesis and Dissertation

- Brooks, J.C. 2000. *Perimysium thickness as an indicator of beef tenderness*. Ph.D. Dissertation, Texas A&M University, College Station.
- Brooks, J. C. 1997. *Growth promotant effects on performance, composition, and palatability of steers with known parentage*. MS Thesis, Texas Tech University, Lubbock.

#### **Invited Presentations**

1. *Texas Tech University: Beef Research Update*. Presented at the *InterVet* Technical Services Meeting, Texas Tech University, May 23-26, 2005
2. *United States Beef Grading and Evaluation Programs*. Presented at the International Symposium of Tendencies and Actualities of Beef Production in Semi-Arid Lands. University of Chihuahua, Chihuahua, Mexico, March 23-25, 2004.
3. *Modified Atmosphere Packaging Research at Texas Tech University*. Department of Animal and Food Sciences Seminar. Fall 2003
4. *Factors Affecting Meat Tenderness*. Red Angus Association Field Day at Texas Tech University
5. *Value-Added Beef Cuts*. Invited speaker at Sysco's Beef University held at Texas Tech University on August 8, 2003.

6. Presented research overview and demonstrated packaging technologies, International Center for Food Industry Excellence Gala on May 22, 2003.
7. Invited speaker at Ambassadors for Agriculture 2003 fall meeting.
8. Advanced Beef Cattle Management Seminar. “*Muscle Profiling: Will these new muscles make the cut in foodservice?*” Stillwater, OK; 4/5/02
9. American Hereford Association. Hereford Directions Summit: “*Meat Technology*”. Stillwater, OK; 6/20-6/22/02
10. Pfizer Animal Health. “*Creating and Capturing Value in the Beef Industry.*” Oklahoma City, OK; Hutchinson, KS; and Lincoln, NE; 9/12-14/00.
11. AgSpan Integrated Production eSystems. “*Meat 101.*” Ft. Worth, TX; 10/26/00.
12. Merial. “*Meat Science 101.*” St. Louis, MO; 5/23/01.
13. Cleveland Rotary Club. “*Mad Cow Disease – An Update.*” Cleveland, OK; 3/27/01.
14. National Limousin Foundation - Focus 2000. “*Beef Grading.*” Stillwater, OK; 11/30/00 and 12/2/00.
15. “*Case Ready Technology: Lean color and palatability consistency*”; Presentation given at Meat Industry Research Conference; Chicago, IL. 10/16-17/01.
16. “*National Beef Tenderness Survey – 1998*”; Presentation given at Extension Educators Meeting; Stillwater, OK. 5/22/01
17. “*National Beef Tenderness Survey – 1998*”; Presentation given at Oklahoma Cattlemen’s Association annual convention; Oklahoma City, OK. July, 2000
18. J. W. Savell and J. C. Brooks. 1999. *National Beef Tenderness Survey – 1998*. Prepared presentation for National Cattlemen’s Beef Association – Cattlemen’s College in Charlotte, NC.

### **Research Activities**

- Organized and chaired the Southwest Meat Science Conference, which was hosted by West Texas A&M University. The two-day event featured speakers from universities in the region, as well as USDA – FSIS, USDA – ARS, and USDA – NIH. September 17 – 18, 2004.
- Collaborated with the School of Hotel and Restaurant Administration, OSU, by performing consumer evaluation in a restaurant setting for an NCBA-funded research project.
- “*National Beef Quality Audit – 2000*”. Collected data (9/18-20/00) and attended Strategy Workshop (1/3-5/01; Dallas, TX) for four-university collaborative study.

## **TEACHING ACTIVITIES**

### **TTU Courses Taught**

- ANSC 3403 – *Honors Selection, Care, Processing and Cooking of Meat*. 4 credits
- ANSC 3403 – *Selection, Care, Processing and Cooking of Meat*. 4 credits
- ANSC 4404/ 5405 – *Advanced Processed Meats*. 4 credits
- ANSC 1401 – *General Animal Science*. 4 credits

### **OSU Courses Taught**

- ANSI 2253 - *Meat Animal and Carcass Evaluation*. 3 credits
- ANSI 5010 (363) – *Advanced Processed Meats*. 3 credits
- ANSI 5010 (362) – *Laboratory Techniques in Food Science*. 3 credits
- ANSI 3182 - *Meat Grading and Selection*. 2 credits

### **Teaching Activities**

- Selected for *Who's Who in Agriculture Higher Education*
- Adviser to 30 undergraduate students
- Faculty Member – Gamma Sigma Delta
- Summer Freshman Advising Activities
- Advisor for the Block and Bridle Club
- Organized Food Show for Advanced Processed Meats class to feature their processed meat items created in class
- Judge for the Texas Tech University Undergraduate Research Poster Competition
- Employ and supervise undergraduate student work in the laboratory.
- Created two graduate level courses in meat processing and laboratory techniques at OSU
- Advisor for agricultural honor society, Alpha Zeta, at OSU
- Supervised students in the Animal Science Freshman Research Scholar Program at OSU
- Coordinated the OSU Block and Bridle Meat Judging Contest for undergraduate students

### **Graduate Teaching Experience**

- Graduate Assistant Lecturer for one undergraduate course
- Coach of the 1999 Texas A&M University Intercollegiate Meat Judging Team
- Laboratory Teaching Assistant for one Honors undergraduate course
- Laboratory Teaching Assistant for two undergraduate courses
- Lecture Teaching Assistant for one graduate and one undergraduate course
- Laboratory Coordinator for one undergraduate course
- Guest Lecturer in eight undergraduate and graduate courses

### **SERVICE ACTIVITIES**

- Performed cutting demonstration, value-added muscle demonstration, and beef fabrication data summary for participants of the *Intervet* Technical Seminar hosted at Texas Tech University in May, 2005.
- Presented and hosted media personnel from various regions in the U.S. at **Beef Baccalaureate**, which was co-sponsored by the International Center for Food Industry Excellence, National Cattlemen's Beef Association, and American Meat Institute.
- Provided student support and resources for the following groups visiting the Meat Science and Muscle Biology Laboratory: Texas Pork Producers Junior Leaders; United States Meat Export Federation and Chinese government delegation; and USDA, AMS, Grading and Certification Branch
- Served as meat science advisor on international research team assembled by *Supachill* USA to address the needs of *Uniq Foods*, a supplier to *Marks & Spenser* retail chain. London, England (6/28/03 – 7/3/03).
- Served as judge for the 2004 Bob Albin Graduate Student Presentation Competition, Department of Animal and Food Sciences, TTU, April 5, 2004
- Invited to participate in *Solae* Processed Meat School, June 2003
- Served as a critique judge for the Texas Tech University Undergraduate Research Poster Competition
- Radio talk show studio guest on KFRE AM 580's "Ag Ed Show"

- Serve as a consultant on Meat Science related issues for Nebraska Beef of Omaha, NB
- Serve as a consultant for Vista Research, New York, New York.
- Consulted for a grass-fed beef operation, Omega Beef, of Brownfield, TX

## **Committees**

### American Meat Science Association Committees

2004 – present	Southwest Meat Science Conference, Chair
2004 – present	Undergraduate Travel Award Committee
2004 – present	Awards Recognition Committee
2001 – 2003	Distinguished Teaching Award Committee
2003	Excel High Plains Meat Judging Contest Official Committee
2002	Houston Livestock Show and Rodeo Meat Judging Committee

### American Society of Animal Science – Southern Section

2005 – present	Meat Science Committee
2002 – 2005	Graduate Student Competition Committee, Chair in 2004

### Texas Tech University Committees

2004 – present	Strategic Planning Council to the President
2004 – present	Faculty Senate – CASNR representative
2003 – present	Animal Care and Use Committee

### College of Agricultural Sciences and Natural Resources Committees

2003 – present	Alumni and Friends Association Advisory Council
2003 – present	Marketing Task Force

### Texas Tech Animal and Food Sciences Departmental Committees

2004	ICFIE – Strategic Plan Coordinator
2003 – present	AFS Peer Evaluation Committee member
2003 – present	Research Report Committee, Chair
2003 – present	Hall of Fame Committee, Chair
2003 – present	Outstanding Student Recognition, Chair
2003 – present	AFS Block and Bridle Banquet Committee
2003 – present	Meat Science Association Spring Banquet, Coordinator

Animal and Food Sciences Alumni Association – Secretary/Treasurer

### OSU Division of Agriculture Committees

Director of the Food and Agricultural Products Research and Technology Center search committee  
Graduate Program in Food Science committee

### OSU Departmental Committees

2002 – 2003	Graduate Programs
2001 – 2003	Teaching
2001 – 2003	Animal Science Banquet
2000 – 2003	Student Activities and Scholarship

2000 – 2003	Academic Quadrathlon
2000 – 2003	Recruitment
2000 – 2001	Seminar

### **Educational Programs**

- Assisted with beef quality program designed for Damon & Associates.
- Assisted with a beef quality program for Junior Farm Bureau members.
- Assisted with a beef quality program for Oklahoma High School Agriculture teachers.
- Coordinated and assisted with the Oklahoma 4-H Meat Judging Contest
- Coordinated and assisted with the Oklahoma FFA Meat Judging Contest
- Assisted with coordination of Oklahoma 4-H and FFA Meat Judging Workshop.
- United Braford Breeders; Junior Braford Breeders Association Conference – Texas A&M University
- Pig Biology – Texas Tech University
- Meat Export Federation Program for Mexican Government – Texas Tech University
- Certified Angus Beef Program – Texas Tech University
- Explained carcass composition and US carcass grading to President of Namibia, during his international visit to the Rosenthal Meat Science and Technology Center, Texas A&M University.
- Demonstrated principles of meat processing to Gifted and Talented students aged 9 – 13 years at Texas Tech University.
- Clarified basic and applied principles of meat science used in the US to visiting professors from India – Texas A&M University.
- Texas A&M Livestock Judging Camp
- Pork Leadership Institute – Texas A&M University
- Alliance Foodservice beef fabrication demonstration

### **STATE EXTENSION EXPERIENCE (No Appointment Held)**

#### **Oklahoma Agricultural Experiment Station Project for 2000 - 2002**

*Improving the Value of Beef Through Product Enhancement.* J. C. Brooks. Oklahoma Agricultural Experiment Station, Oklahoma State University, Stillwater.

#### **Program Assistance**

- *Beef Quality Summit - Oklahoma State University*
- *Pork 101 - Oklahoma State University*
- *Beef Quality Assurance Booth - Oklahoma State University*
- *SMA Value Added Meat and Poultry School - Texas A&M University*
- *Processed Meat School and Sausage School - Texas A&M University.*
- *Beef 101 - Texas A&M University*
- *Beef 706 - Texas A&M University*
- *Beef 808 - Texas A&M University*
- *Beef Chef Seminar - Texas A&M University*
- *Beef Retail 706 - Texas A&M University*
- *Texas Southwestern Cattle Raisers Association Short Course - Texas A&M University*
- *Beef Cattle Short Course - Texas A&M University*

## **AFFILIATIONS AND AWARDS**

### **Professional Memberships / Organizations**

2004 – present	Institute of Food Technologists
2003 – present	Gamma Sigma Delta
1996 – present	American Meat Science Association
1996 – present	American Society of Animal Science

### **Graduate Committee**

#### TTU Graduate committees

Willy Horne, Chair	B. J. Schilling, Co-Chair
Wendy Palmore, Chair	Dale Woerner, Co-Chair
Angie Reichs, Co-Chair	Jarrold Miller, member
Jason Byrd, member	Zac Vineyard, member
Michael Jaks, member	Jennifer Leheska, member
Will Winters, member	

#### OSU Graduate committees

Willy Horne, Chair	Jason Jordan, Chair
Kendra Payne, Chair	Lyn Frerichs, Chair
Aaron Elam, Chair	Paula Bates, member
Iliana Pruneda, member	Jeyam Subbiah, member
Laura Locke, member	Mark McGee, member
Andrew McPeake, member	Jennifer Nangle, member
Nathan Elam, member	Chad Carr, member
Kendra Henry, member	Keith Charmasson, member

### **Graduate Honors**

- 2000 Texas A&M University – Department of Animal Science nominee for the Association of Former Students’ Distinguished Graduate Student Assistant Teaching Award
- 1999 Texas A&M University - Department of Animal Science nominee for the Vice Chancellor’s Award in Excellence - Graduate Student Teaching
- 1998 Jack Peoples Memorial Meat Science Scholarship - Texas A&M University
- 1997 Texas Tech University, Department of Animal Science - Outstanding Graduate Student
- 1997 Gamma Sigma Delta - Outstanding Animal Science M.S. Graduate Student
- 1997 San Antonio Livestock Exposition Graduate Student Scholarship
- 1994 American Society of Animal Science Scholastic Achievement Award
- 1994 Texas Tech College of Agricultural Sciences and Natural Resources - Aggie of the Month
- 1992 Texas Tech Champion Meat Judging Team
- 1992 Texas Tech Block and Bridle - Little International Champion Showman
- 1992 Texas Tech - Dean’s List
- 1990 San Antonio Livestock Exposition Undergraduate Scholarship
- 1989 State Fair of Texas Honor Award

### **Undergraduate Organizations and Offices Held**

1996 – 1997	Gamma Sigma Delta
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J Chance Brooks

1995 – 1997 Texas Tech Animal Science Graduate Student Association  
1992 – 1997 Texas Tech Meat Science Association – President, 1994  
1992 – 1994 Texas Tech Agri-Techsan  
1992 Texas Tech Meat Judging Team - President  
1990 – 1994 Texas Tech Student Agricultural Council – President, 1993  
1990 – 1994 Texas Tech Ambassador for Agriculture  
1988 – 1989 Texas 4-H Council – State President