

CURRICULUM VITA GRETCHEN G. MAFI

Oklahoma State University
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EDUCATION

TEXAS TECH UNIVERSITY

Ph.D., May 2000
Major: Animal Science, Meat Science specialization
DISSERTATION: Methods to Improve the Quality and Consistency of Beef.

COLORADO STATE UNIVERSITY

M.S., December 1996
Major: Animal Science, Meat Science specialization
THESIS: Palatability Attributes of Longissimus Steaks from Female Bovine Carcasses differing in Maturity and Marbling Score.

TEXAS TECH UNIVERSITY

B.S., May 1994
Major: Animal Science

WORK EXPERIENCE

OKLAHOMA STATE UNIVERSITY, DEPARTMENT OF ANIMAL SCIENCE, Stillwater
PROFESSOR AND RALPH & LEILA BOULWARE ENDOWED CHAIR, MEAT SCIENCE, June 2006-Present

RESPONSIBILITIES

- Develop and implement a research program in meat science.
- Instruct meat science courses; coach meat judging team.
- Advise graduate and undergraduate students and student organizations.

ANGELO STATE UNIVERSITY, DEPARTMENT OF ANIMAL SCIENCE, San Angelo, TX
ASSISTANT PROFESSOR, AGRICULTURE August 2002–June 2006

RESPONSIBILITIES

- Develop and implement a research program in meat science
- Instruct animal and meat science courses; coach meat judging team
- Advise graduate and undergraduate students and student organizations

USDA-AMS, Washington, DC

LIVESTOCK AND MEAT MARKETING SPECIALIST August 2001–August 2002

RESPONSIBILITIES

- Coordinate and conduct research to ensure USDA Grades meet market needs
- Ensure proper application of USDA Carcass Grades
- Train USDA Graders to apply carcass grades

OKLAHOMA STATE UNIVERSITY

RECENT RESEARCH GRANTS

- D.L. VanOverbeke and **G.G. Mafi (Co-PI)**. USDA-ARS. Influence of Frame Score and Finishing System on Carcass and Meat Quality. 2014-2019. \$15,000.
- D.L. VanOverbeke and **G.G. Mafi (Co-PI)**. Multisorb. 4/1/2014 – 3/31/2015. \$65,820.
- **G.G. Mafi (PI)** and D.L. VanOverbeke. Consumer evaluation of beef fed traditionally, naturally and supplemented with Zilmax. Merck Corporation. \$4,935 + in-kind and Merck sponsorship (\$28,000 total). 10/1/2013 – 6/30/2014.
- **G.G. Mafi (PI)** and D.L. VanOverbeke. Dimensional changes of strips loins from cattle fed traditionally, naturally, or supplemented with Zilmax. Merck Corporation. \$4,500. 10/1/2013 – 6/30/2014.
- D.L. VanOverbeke and **G.G. Mafi (Co-PI)**. National Beef Corned Beef Consumer Evaluation. 11/1/2013 – 6/1/2014. \$25,200.

- D.L. VanOverbeke, **G.G. Mafi (Co-PI)**, R. Ramanathan, C. Krehbiel, R. Mateescu, and C. Gifford. USDA-NIFA-AFRI Foundation. Instron 5943 Dual Column Tabletop Model Testing System. 11/1/2013 – 1/31/2015. \$17,300.
- D.L. VanOverbeke and **G.G. Mafi (Co-PI)**. Multisorb. 4/1/2013 – 3/31/2014. \$65,820.
- D. VanOverbeke and **G. Mafi (Co-PI)**. National Beef. To investigate the effects of sodium metasilicate on the organoleptic properties of ground beef. 2012. \$5,490.
- **G.G. Mafi (PI)**. Pactiv – Evaluation of 2 oxygen scavengers with varying dark storage times to determine efficacy of extending retail shelf-life. 1/2/2013 – 3/1/2013. \$6,600.
- D.L. VanOverbeke and **G.G. Mafi (Co-PI)**. Multisorb. 4/1/2012 – 3/31/2013. \$57,600.
- C. Krehbiel, U. DeSilva, G. Horn, **G.G. Hilton (Co-PI)**, P. Lancaster. NCBA. Skeletal muscle differentially influences marbling development through IGF-I and myostatin pathways in growing versus finishing cattle. 5/1/2012 – 4/3/2013. \$73,526.

TEACHING

General Area of Instruction: Meat and Food Science; Meat Judging; Meat Animal Evaluation

Courses Taught: ANSI/FDSC 2233 (The Meat We Eat, Fr/So level); FDSC/ANSI 2253 (Live Animal and Carcass Evaluation; So/Jr/Sr level); FDSC/ANSI 3232 (Carcass Evaluation, Grading and Selection); FDSC/ANSI 3333 (Meat Science); ANSI 5213 (Advances in Meat Science; M.S./Ph.D. level)

RECENT PUBLICATIONS

- Elroy, N.N., J. Rogers, **G.G. Mafi**, D.L. VanOverbeke, S.D. Hartson, and R. Ramanathan. 2015. Species-specific effects on non-enzymatic metmyoglobin reduction. *Meat Sci.* 105:113-118.
- Ramanathan, R. X. Guo, **G.G. Mafi**, D.L. VanOverbeke, and U. Desilva. 2014. Quantification of beef longissimus and psoas muscle mitochondria using real-time quantitative polymerase chain reaction. *Meat Sci.* Accepted.
- Maxwell, C.L., C.R. Krehbiel, B.K. Wilson, B.T. Johnson, B.C. Bernhard, C.F. O'Neill, K.J. Winn, K.R. McCullough, T.A. Harlan, M.M. Kinna, B.D. Bloomberg, C.J. Richards, **G.G. Mafi**, D.L. Step, D.C. Beitz, S.L. Hansen, and D.L. VanOverbeke. 2014. Effects of beef production systems on retail meat attributes. *J. Anim. Sci.*
- Maxwell, C.L., B.C. Bernhard, C.F. O'Neill, B.K. Wilson, C.G. Hixon, C.L. Haviland, A.N. Grimes, M.S. Calvo-Lorenzo, D.L. VanOverbeke, **G.G. Mafi**, C.J. Richards, D.L. Step, B.P. Holland and C.R. Krehbiel. 2015. The effects of technology use in feedlot production systems on feedlot performance and carcass characteristics. *J. Anim. Sci.*
- Mateescu, R.G., D.J. Garrick, A.J. Garmyn, D.L. VanOverbeke, **G.G. Mafi**, and J.M. Reecy. 2015. Genetic parameters for sensory traits in longissimus muscle and their association with tenderness, marbling score, and intramuscular fat in Angus cattle. *J. Anim. Sci.* 1:21-27.
- Maxwell, C.L., B.K. Wilson, B.T. Johnson, B.C. Bernhard, C.F. O'Neill, D.L. VanOverbeke, **G.G. Mafi**, C.J. Richards, D.L. Step, and C.R. Krehbiel. 2014. The effects of altering beef production systems on animal performance and carcass characteristics. *J. Anim. Sci.* 92:5727-5738.
- **Mafi, G.G.***, B.L. Harsh and J.A. Scanga. 2014. Review of Instrument Augmented Assessment of USDA Beef Carcass Quality Grades. *Recip. Meats Conf. – Am. Meat Sci. Asso.*
- Wahrmond, J.L., C.J. Richards, D.B. Burken, B.P. Holland, B.J. Pye, B.K. Wilson, S.J. Terrill, S.M. Trost, D.L. VanOverbeke, **G.G. Hilton**, M.N. Streeter, D.A. Yates, J.P. Hutcheson, W.T. Nichols, C.L. Goad, and C.R. Krehbiel. 2013. Zilpaterol hydrochloride impact on core body temperature, performance, carcass characteristics, and beef attributes in feedlot cattle. *J. Anim. Sci.* Submitted
- Howard, S.T., D.R. Woerner, J.A. Scanga, D.L. VanOverbeke, **G.G. Mafi**, J.L. Igo, M.D. Salman, J.D. Tatum, and K.E. Belk. 2013. North American Beef Tenderness Survey 2011-2012: Benchmarking Tenderness and Sample Shipping Procedures. *J. Anim. Sci.* 91:5981-5988.
- Sharman, E.D., P.A. Lancaster, C.P. McMurphy, A.J. Garmyn, B.J. Pye, **G.G. Mafi**, C.L. Goad, W.A. Phillips, J.D. Starkey, C.R. Krehbiel, and G.W. Horn. 2013. Effect of rate of body weight gain in steers during the stock phase. I. Growth, partitioning of fat among depots, and carcass characteristics of growing-finishing beef cattle. *J. Anim. Sci.* 91:4322-4335.