**Dr. Ryan J. Rathmann**

Texas Tech University

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**Education and Post Graduate Training**

Ph D, Texas Tech University, 2008.

Major: Ruminant Nutrition

MS, Texas A&M University, 2005.

Major: Animal Science

Supporting Areas of Emphasis: Physiology of Reproduction

BS, Texas A&M University, 2002.

Major: Animal Science, Production Option

**Academic and Professional Experience**

**Associate Professor, Texas Tech University. (September 1, 2015 - Present).**

**Assistant Professor, Texas Tech University, Department of Animal and Food Sciences. (January 2009 - August 31, 2015).**

**Endowment Gifts**

Gift-in-Kind, 500.00, 74-51 Cattle Co., Willie Couch, 20 Cryopreserved Straws of Bovine Semen (EXAR Totally Tuned; $25 x 20 = $500).

Gift-in-Kind, 3,144.38, CEV Multimedia, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 1,134.43, CEV Multimedia, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 373.50, CEV Multimedia, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 5,347.69, CEV Multimedia, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 2,235.60, CEV Multimedia, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 25,000.00, Diane Jones Family, Cash Gift contribution for establishment of the “William L. and Diane Jones Scholarship Endowment” for students on the Texas Tech University Livestock Judging Team.

Gift-in-Kind, 2,000.00, Fenton Farms, 80 Cryopreserved Straws of Bovine Semen (n=40, FF Tonka 900; n=30, FF PSI 800; n=10, FF Hoss Style X201; 80 x $25 = $2,000.

Gift-in-Kind, 75,000.00, G.R. White Trust, Cash Gift contribution for establishment of the “William L. and Diane Jones Scholarship Endowment” for students on the Texas Tech University Livestock Judging Team.

Gift-in-Kind, 1,000.00, Lubbock County Junior Livestock Show, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 25,000.00, Members of the Texas Tech Livestock Judging Team Program, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 100.00, Mr. Fred and Wanda Willis, Cash Gift for establishment of the “Ryan and Kayla Rathmann Pursuit of Excellence in Livestock Judging Endowment”.

Gift-in-Kind, 1,350.00, Olsen Yorkshires, 18 Doses of Yorkshire and Crossbred Boar Semen (n=4, Boost; n=8, Net Worth; n=6, Moore Power; $75 x 18 = $1,350).

Gift-in-Kind, 1,950.00, Olsen Yorkshires, 26 Doses of Yorkshire Boar Semen ($75 x 26 = $1,950.

Gift-in-Kind, 100,000.00, Texas Tech University, Matching funds for establishment of the “William L. and Diane Jones Scholarship Endowment” for students on the Texas Tech University Livestock Judging Team.

Gift, 25,000.00, MS Biotec, Wamego, KS, *Unrestricted Cash Donation for the support of the Ruminant Nutrition Research Fund.* . (November 2020).

Gift, 28,500.00, Adisseo USA Inc., Alpharetta, GA, *Unrestricted Cash Donation for the support of the Ruminant Nutrition Research Fund.* . (September 2020).

Gift-in-Kind, 90,000.00, Wood Ranch, LLC, Rising Star, TX, *6 Yearling Angus/SimAngus Heifers (Dameron Northern Miss 3122 AAA#17630497 x Silverias Style 9303 creating AAA#19766672 $15,000 x 1 = $15,000; Dameron Northern Miss 3122 AAA#17630497 x LLSF Pays to Believe ZU194 creating ASA#3744372 thru ASA#3744376 $15,000 x 5 = $75,000).*. (September 2020).

Gift-in-Kind, 34,000.00, Wood Ranch, LLC, Rising Star, TX, *17 Cryopreserved Angus/SimAngus Bovine Embryos (Dameron Northern Miss 3122 AAA#17630497 x Plum Creek Paradox 161B AAA#17099596 $2000 x 13 = $26,000 Dameron Northern Miss 3122 AAA#17630497 x Hammer 308 161B ASA#2759745 $2000 x 4 = $8,000).*. (September 2020).

Gift-in-Kind, 36,200.00, Wood Ranch, LLC, Rising Star, TX, *81 Cryopreserved Hereford Bovine Embryos (T/R Sapphire 2803 ET AHA#43724734 x Showtime Fireball 734 AHA#43841062 $450 x 24 = $10,800; T/R Sapphire 2803 ET AHA#43724734 x CHEZ Divergent 505C ET AHA#43628310 $500 x 15 = $7,500; T/R Sapphire 2803 ET AHA#43724734 x TRF KU Triple Seven 1330 ET AHA#43512186 $350 x 14 = $4,900; T/R Sapphire 2803 ET AHA#43724734 x Sull Mr Harley 5423C ET AHA#43637722$400 x 10 = $4,000; T/R Sapphire 2803 ET AHA#43724734 x Double Made $500 x 18 = $9,000).*. (September 2020).

Gift, 25,000.00, MS Biotec, Wamego, KS, *Unrestricted Cash Donation for the support of the Ruminant Nutrition Research Fund.* . (February 2020).

Gift, 25,000.00, MS Biotec, Wamego, KS, *Unrestricted Cash Donation for the support of the Ruminant Nutrition Research Fund.* . (December 15, 2019).

Gift, 10,000.00, MS Biotec, Wamego, KS, *Unrestricted Cash Donation for the support of the Ruminant Nutrition Research Fund.* . (August 1, 2019).

Gift-in-Kind, 2,100.00, Griswold Cattle Co, *70 Cryopreserved Straws of Bovine Semen (Gold Standard X15, AAA#17001727; GCC Money Earned, AAA#18989403; GCC New Game AAA#18324437 $30 x 70 = $2,100).*. (April 15, 2019).

Gift, 8,000.00, Star of Texas Fair and Rodeo, *Cash Gift for contribution to the Livestock Evaluation Demonstration Account.* . (March 31, 2019).

Gift-in-Kind, 936.00, Zoetis Animal Genetics, Kalamazoo, MI, *Donation of 24 GeneMax commercial Angus genomic tests for replacement heifers to use as an educational demonstration in ANSC 4403.* . (March 1, 2018).

Endowment, 25,000.00, Richard and Bobbi Ligon, Mr. Richard Ligon is an alumni of TTU and a member of the 1957 Livestock Judging Team. He wanted to setup a scholarship endowment in his and his wife's name to support the most outstanding all-around student on the team. (August 2017).

**TEACHING**

**Courses Taught**

**Texas Tech University**

ANSC 1401, General Animal Science, 7 courses.

ANSC 2301, Livestock and Meat Evaluation I, 30 courses.

ANSC 2302, Livestock and Meat Evaluation II, 22 courses.

ANSC 3203, Livestock and Meat Judging, 9 courses.

ANSC 3204, Advanced Livestock, Horse, and Meat Judging, 9 courses.

ANSC 3402, Animal Breeding and Genetics, 33 courses.

ANSC 4000, Internship, 32 courses.

ANSC 4001, Special Problems in Animal Science, 22 courses.

ANSC 4202, Artificial Insemination of Livestock, 18 courses.

ANSC 4403, Beef Production, 48 courses.

ANSC 5000, Professional Internship, 1 course.

ANSC 5001, Problems in Animal Science, 7 courses.

ANSC 5302, Advanced Beef Production, 1 course.

ANSC 6000, Master’s Thesis, 16 courses.

ANSC 6001, Supervised Teaching, 8 courses.

ANSC 7000, Research, 32 courses.

ANSC 8000, Doctor’s Dissertation, 4 courses.

**Non-Credit Instruction**

Coaching of the Livestock Judging Team, 21 participants. (December 1, 2019 - Present).

Coaching of the Livestock Team. (January 2006 - Present).

**Directed Student Learning**

Alex Odle, Master's Non-Thesis Committee Chair, "n/a," Animal & Food Sciences. (January 2021 - Present).

James Young, Master's Thesis Committee Chair, "Investigations of a ruminally-protected lysine supplement in the diet of beef finishing steers," Animal & Food Sciences. (August 2020 - December 31, 2021).

Jonah Biensch, Master's Thesis Committee Chair, "Investigations into transdifferentiation of mesenchymal stem cells in light weight calves fed a high starch diet with and without administration of Megaspheri elsdenii," Animal & Food Sciences. (August 15, 2019 - August 2021).

Chris Miller, Doctoral Advisory Committee Member, "Effects of huisache (Acacia farnesiana) and honey mesquite (Prosopis glandulosa) on understory forage characteristics and soil nutrients in the Texas gulf prairies.." (January 2018 - May 2021).

Miranda Stotz, Master's Thesis Committee Member, "Investigations into liver abscesses in Holstein steers," Animal & Food Sciences. (January 1, 2019 - August 2020).

Phil Urso, Dissertation Defense Committee Member, "Evaluation of zinc methionine and chromium supplementation on rumen parameters, amino acid uptake, performance, and carcass characteristics in beef steers," Animal & Food Sciences. (August 15, 2017 - May 15, 2020).

Jonathon Declerck, Dissertation Committee Chair, "Investigations into feedlot technologies which add value to thin, cull beef cows during re-conditioning and subsequent targeting for a lean market," Animal & Food Sciences. (January 2016 - December 2019).

Courtney Jasik, Master's Thesis Committee Member, "Relationship between huisache (Acacia farnesiana) canopy cover and understory forage characteristics in Texas Coastal Prairies," Natural Resources Management. (August 15, 2018 - December 15, 2019).

Austin Adams, Master's Thesis Committee Chair, "Investigations into post-weaning growth implants on pubertal attainment and ovarian activity of beef heifers," Animal & Food Sciences. (August 2017 - August 2019).

Reginald Priest, Master's Thesis Committee Member, "Meat quality of crossbred dairy cattle," Animal & Food Sciences. (August 15, 2017 - May 15, 2019).

**Teaching Awards and Honors**

President's Excellence in Teaching Award, Texas Tech University. (April 2019).

**RESEARCH**

**Published Intellectual Contributions**

**Abstract**

Cribbs, J. T., Young, T. R., Burdick, N. C., Carroll, J. A., Callaway, T. R., Schmidt, T. B., Johnson, B., Rathmann, R. *Dried citrus pulp alters feedlot performance of crossbred heifers during the receiving period.* (377 (Abstract #T358) ed., vol. 90(E-Suppl. 3)). Journal of Animal Science.

Burdick, N. C., Cribbs, J. T., Carroll, J. A., Callaway, T. R., Schmidt, T. B., Johnson, B., Rathmann, R. *Dried citrus pulp modulates the physiological and acute phase responses of crossbred heifers to an endotoxin challenge.* (513 (Abstract #W38) ed., vol. 90(E-Suppl. 3)). Journal of Animal Science.

Broadway, P. R., Callaway, T. R., Carroll, J. A., Donaldson, J. R., Rathmann, R., Johnson, B., Cribbs, J. T., Durso, L. M., Nisbet, D. J., Schmidt, T. B. *Evaluation of the ruminal bacterial diversity of cattle fed diets containing citrus pulp pellets (CPP) using bacterial tag-encoded FLX amplicon pyrosequencing (bTEFAP).* (339 (Abstract #T257) ed., vol. 90 (E-Suppl. 3)). Journal of Animal Science.

Burdick, N. C., Young, T. R., Carroll, J. A., Corley, J. R., Rathmann, R., Johnson, B. *The effect of yeast cell wall supplementation on the physiological and acute phase responses of crossbred heifers to endotoxin challenge.* (704 (Abstract # 769) ed., vol. 90(E-Suppl. 3)). Journal of Animal Science.

Burdick, N. C., Young, T. R., Carroll, J. A., Corley, J. R., Rathmann, R., Johnson, B. *The effect of yeast cell wall supplementation on the physiological and acute phase responses of crossbred heifers to endotoxin challenge.* (221 (Abstract #215) ed., vol. 90(E-Suppl. 3)). Journal of Animal Science.

Young, T. R., Burdick, N. C., Carroll, J. A., Corley, J. R., Rathmann, R., Johnson, B. *Yeast cell wall supplementation alters the performance and physiological response of beef heifers following an immune challenge.* (221 (Abstract # 217). ed., vol. 90(E-Suppl. 3)). Journal of Animal Science.

Kern, C., Rathmann, R., Sarturi, J., Norris, A., Crossland, W. (2023). *Cottonseed meal supplementation on calf performance and forage utilization grazing late season summer forage* (pp. 1). American Society of Animal Science.

**Journal Article, Academic Journal**

Wilson, R., Johnson, B., Sarturi, J., Crossland, W., Hales-Paxton, K., Rathmann, R., Bratcher, C., Theurer, M. E., Amachawadi, R. G., Nagaraja, T. G., Speidel, S. E., Enns, R. M., Thomas, M. G., Foraker, B. A., Cleveland, M. A., Sarturi, J. O. (2024). Identification of blood-based biomarkers for detection of liver abscess in beef × dairy heifers. *Applied Animal Science*.

Foraker, B. A., Johnson, B. J., Rathmann, R., Legako, J., Brooks, J. C., Miller, M. F., Tatum, J. D., Woerner, D. (2022). Expression of beef-versus dairy-type in crossbred beef x dairy cattle does not impact shape, eating quality, or color of strip loin steaks.. *Meat and Muscles Biology, 6*.

DeClerck, J., Wade, Z. E., Reeves, N. R., Miller, M., Johnson, B., Ducharme, G. A., Rathmann, R. (2020). Influence of *Megasphaera elsdenii* and feeding strategies on feedlot performance, compositional growth, and carcass parameters of early weaned, beef calves.. *Translational animal science, 4*(2), txaa031.

DeClerck, J., Reeves, N. R., Miller, M. F., Johnson, B., Ducharme, G. A., Rathmann, R. (2020). Influence of dietary roughage level and Megasphaera elsdenii on feedlot performance and carcass composition of thin cull beef cows fed for a lean market. *TRANSLATIONAL ANIMAL SCIENCE, 4*(1), 159-169.

DeClerck, J., Reeves, N. R., Miller, M. F., Johnson, B., Ducharme, G. A., Rathmann, R. (2020). The influence of Megasphaera elsdenii on rumen morphometrics of cull cows immediately stepped up to a high-energy finishing diet. *TRANSLATIONAL ANIMAL SCIENCE, 4*(1), 194-205.

DeClerck, J., Reeves, N. R., Miller, M., Johnson, B., Ducharme, G. A., Rathmann, R. (2019). The influence of *Megasphaera elsdenii* on rumen morphometrics of cull cows immediately stepped up to a high-energy finishing diet.. *Translational animal science, 4*(1), 194-205.

DeClerck, J., Reeves, N. R., Miller, M., Johnson, B., Ducharme, G. A., Rathmann, R. (2019). Influence of dietary roughage level and *Megasphaera elsdenii* on feedlot performance and carcass composition of thin cull beef cows fed for a lean market.. *Translational animal science, 4*(1), 159-169.

Lucherk, L., O'Quinn, T. G., Legako, J., Rathmann, R., Brooks, J. C., Miller, M. (2017). Assessment of objective measures of beef steak juiciness and their relationships to sensory panel juiciness ratings. *JOURNAL OF ANIMAL SCIENCE, 95*(6), 2421-2437.

Crownover, R., Garmyn, A., Polkinghorne, R., Rathmann, R., Bernhard, B., Miller, M. (2017). The effects of hot vs. cold boning on eating quality of New Zealand grass fed beef. *Meat and Muscle Biology, 1*(1), 207--217.

Lucherk, L. W., O’Quinn, T. G., Legako, J., Rathmann, R., Brooks, J. C., Miller, M. (2017). Assessment of objective measures of beef steak juiciness and their relationships to sensory panel juiciness ratings. *Journal of Animal Science, 95*(6), 2421-2437.

Hunt, M. R., Legako, J., Dinh, T. T. N., Garmyn, A., O'Quinn, T. G., Corbin, C. H., Rathmann, R., Brooks, J. C., Miller, M. (2016). Assessment of volatile compounds, neutral and polar lipid fatty acids of four beef muscles from USDA Choice and Select graded carcasses and their relationships with consumer palatability scores and intramuscular fat content. *MEAT SCIENCE, 116*, 91-101.

Lucherk, L., O'Quinn, T. G., Legako, J., Rathmann, R., Brooks, J. C., Miller, M. (2016). Consumer and trained panel evaluation of beef strip steaks of varying marbling and enhancement levels cooked to three degrees of doneness. *MEAT SCIENCE, 122*, 145-154.

Knobel-Graves, S. M., Brooks, J. C., Johnson, B., Starkey, J., Beckett, J. L., Hodgen, J. M., Hutcheson, J. P., Streeter, M. N., Thomas, C. L., Rathmann, R., Garmyn, A., Miller, M. (2016). Effect of vitamin D-3, zilpaterol hydrochloride supplementation, and postmortem aging on shear force measurements of three muscles in finishing beef steers. *JOURNAL OF ANIMAL SCIENCE, 94*(6), 2637-2647.

Lucherk, L. W., O'Quinn, T. G., Legako, J., Rathmann, R., Brooks, J. C., Miller, M. (2016). Consumer and trained panel evaluation of beef strip steaks of varying marbling and enhancement levels cooked to three degrees of doneness. *Meat Science, 122*, 145-154.

Hunt, M. R., Legako, J., Dinh, T. T.N., Garmyn, A., O'Quinn, T. G., Corbin, C., Rathmann, R., Brooks, J. C., Miller, M. (2016). Assessment of volatile compounds, neutral and polar lipid fatty acids of four beef muscles from USDA Choice and Select graded carcasses and their relationships with consumer palatability scores and intramuscular fat content. *Meat Science, 116*, 91-101.

Knobel-Graves, S. M., Brooks, J. C., Johnson, B., Starkey, J., Beckett, J. L., Hodgen, J. M., Hutcheson, J. P., Streeter, M. N., Thomas, C. L., Rathmann, R., Garmyn, A., Miller, M. (2016). Effect of vitamin D, zilpaterol hydrochloride supplementation, and postmortem aging on shear force measurements of three muscles in finishing beef steers.. *Journal of animal science, 94*(6), 2637-47.

Corbin, C. H., O'Quinn, T. G., Garmyn, A., Legako, J., Hunt, M. R., Dinh, T. T. N., Rathmann, R., Brooks, J. C., Miller, M. (2015). Sensory evaluation of tender beef strip loin steaks of varying marbling levels and quality treatments. *MEAT SCIENCE, 100*, 24-31.

Corbin, C., O'Quinn, T. G., Garmyn, A., Legako, J., Hunt, M. R., Dinh, T. T.N., Rathmann, R., Brooks, J. C., Miller, M. (2015). Sensory evaluation of tender beef strip loin steaks of varying marbling levels and quality treatments. *Meat Science, 100*, 24-31.

Martin, J., Garmyn, A., Miller, M., Hodgen, J. M., Pfeiffer, K. D., Thomas, C. L., Rathmann, R., Yates, D. A., Hutcheson, J. P., Brooks, J. C. (2014). Comparative effects of beta-adrenergic agonist supplementation on the yield and quality attributes of selected subprimals from calf-fed Holstein steers. *JOURNAL OF ANIMAL SCIENCE, 92*(9), 4204-4216.

Garmyn, A., Brooks, J. C., Hodgen, J. M., Nichols, W. T., Hutcheson, J. P., Rathmann, R., Miller, M. (2014). Comparative effects of supplementing beef steers with zilpaterol hydrochloride, ractopamine hydrochloride, or no beta agonist on strip loin composition, raw and cooked color properties, shear force, and consumer assessment of steaks aged for fourteen or twenty-one days postmortem. *JOURNAL OF ANIMAL SCIENCE, 92*(8), 3670-3684.

Hunt, M. R., Garmyn, A., O'Quinn, T. G., Corbin, C. H., Legako, J., Rathmann, R., Brooks, J. C., Miller, M. (2014). Consumer assessment of beef palatability from four beef muscles from USDA Choice and Select graded carcasses. *MEAT SCIENCE, 98*(1), 1-8.

Hunt, M. R., Garmyn, A., O'Quinn, T. G., Corbin, C., Legako, J., Rathmann, R., Brooks, J. C., Miller, M. (2014). Consumer assessment of beef palatability from four beef muscles from USDA Choice and Select graded carcasses. *Meat Science, 98*(1), 1-8.

**Journal Article, Professional Journal**

Bernhard, B., Burdick, N. C., Rounds, W., Rathmann, R., Carroll, J. A., Fink, D. N., Jennings, M., Young, T. R., Johnson, B. Chromium supplementation alters the performance and health of feedlot cattle during the receiving period and enhances their metabolic response to a lipopolysaccharide (LPS) challenge.. *Journal of Animal Science, 90*, 3879-3888.

Burdick, N. C., Bernhard, B. C., Carroll, J. A., Rathmann, R., Johnson, B. Enhancement of the acute phase response to a lipopolysaccharide challenge in steers supplemented with chromium.. *Innate Immunity, 18*, 592-601.

Broadway, P. R., Callaway, T. R., Carroll, J. A., Donaldson, J. R., Rathmann, R., Johnson, B., Cribbs, J. T., Durso, L. M., Nisbet, D. J., Schmidt, T. B. Evaluation of the ruminal bacterial diversity of cattle fed diets containing citrus pulp pellets.. *Agric. Food Anal. Bacteriol, 2*, 297-308.

Fuerniss, L. K., Young, J. D., Hall, J. R., Wesley, K. R., Benitez, O. J., Corah, L. R., Rathmann, R. J., Johnson, B. J. (2023). Beef embryos in dairy cows: Calfhood growth of Angus-sired calves from Holstein, Jersey or crossbred beef dams.. *Translational Animal Science, 7*, 1-10.

Fuerniss, L. K., Wesley, K. R., Bowman, S. M., Hall, J. R., Young, J. D., Beckett, J. L., Woerner, D. R., Rathmann, R. J., Johnson, B. J. (2023). Beef embryos in dairy cows: Feedlot performance, mechanistic responses, and carcass characteristics of straightbred Holstein calves and Angus-sired calves from Holstein, Jersey or crossbred beef dams.. *Journal of Animal Science, 101*, 1-14.

Fuerniss, L. K., Hall, J. R., Young, J. D., Wesley, K. R., Bowman, S. M., Felizari, L. D., Woerner, D. R., Rathmann, R. J., Johnson, B. J. (2023). Body, carcass, and steak dimensions of straightbred Holstein calves and Angus-sired calves from Holstein, Jersey, and crossbred beef dams.. *Journal of Animal Science, 101*, 1-14.

DeClerck, J., Lucherk, L., Reeves, R., Miller, M., Bernhard, B., Rathmann, R. (2020). Influence of ractopamine hydrochloride and days on feed on feedlot performance and red meat yield in thin cull beef cows targeted for a lean market. *Translational Animal Science, 4*(1), 170-181.

Miller, M., Hunt, M. R., Legako, J., Dinh, T.T. N., Garmyn, A. J., O'Quinn, T. G., Corbin, C. H., Rathmann, R., Brooks, J. C. (2016). Assessment of volatile compounds, neutral and polar lipid fatty acids of four beef muscles from USDA Choice and Select graded carcasses and their relationships with consumer palatability scores and intramuscular fat content. *Journal of Meat Science*.

Miller, M. F., Hunt, M. R., Legako, J. F., Dinh, T., Garmyn, A., O'Quinn, T. G., Corbin, C. H., Rathmann, R. J., Brooks, J. C. (2016). Assessment of Volitile Compounds. *Meat Science*(116), 91-101.

Miller, M., Lucherk, L. W., O'Quinn, T. G., Legako, J., Rathmann, R., Brooks, J. C. (2016). Consumer and trained panel evaluation of beef strip steaks of varying marbling and enhancement levels cooked to three degrees of doneness. *Journal of Meat Science, 122*, 145-154.

Miller, M., Hunt, M. R., Garmyn, A. J., O'Quinn, T. G., Corbin, C. H., Lagako, J. F., Rathmann, R., Brooks, J. C. Consumer assessment of beef palatability from four beef muscles from USDA Choice and Select graded carcasses. *American Meat Science Association*.

**Presentations Given**

Loving, M., Lux, R., Fischer, L., Irlbeck, E., Rathmann, R., National Conference, "What’s the Beef? Strategies cattlemen’s organizations currently use to communicate animal science and livestock production to policymakers in the United States.," National Agricultural Communications Symposium, Atlanta, Georgia. (2024).

Rathmann, R. (Presenter Only), SureChamp Virtual Youth Leadership Conference, "Why leadership in 2020 is more important than ever.," SureChamp/Biozyme, Virtual. (August 5, 2020).

Rathmann, R. (Presenter Only), Texas 4-H Ag Ambassador Training, "Carcass Ultrasound Demonstration and Bovine Reproductive Anatomy," Texas 4-H, Lubbock. (July 27, 2020).

Rathmann, R., Fort Bend County 4-H Leadership Tour, "Animal Welfare Considerations in a Feedlot," Fort Bend County 4-H, Texas Panhandle. (July 22, 2020).

Rathmann, R. (Presenter Only), Caprock Beef Cattle Series, "Expected Progeny Differences and Genomic Information Importance to the Commercial Sector," Texas Agrilife, Radio Show. (July 16, 2020).

Rathmann, R. (Presenter Only), District 2 Virtual Livestock Judging Series: How to evaluate cattle and associated performance data, "How to evaluate cattle and associated performance data," Texas AgriLife, Virtual. (June 16, 2020).

Rathmann, R., National Collegiate Livestock Judging Banquet, "Presentation of the 10-year National Champion Livestock Judging Team," NAILE, Louisville, KY. (November 19, 2019).

Rathmann, R. (Presenter Only), TPPA Youth Leadership Tour, "Predicting Carcass Grid Value of Live Swine," Texas Pork Producers Association, Lubbock. (July 24, 2019).

Rathmann, R. (Presenter Only), University of Queensland in Australia Beef Internship Program, "Future Direction of the United States Beef Industry," TTU. (June 26, 2019).

Rathmann, R. (Presenter Only), Texas Youth Cattle Conference Panhandle Tour, "Low Stress Cattle Handling," Texas Beef Council, New Deal. (June 18, 2019).

Rathmann, R. (Presenter Only), TCFA/MS Biotech Lactipro Seminar, "A Summary of Research Trials using Megasphaera elsdenii in Realimentation Strategies of Cull Cows and Light Weight Calves," MS Biotech, Amarillo, TX. (May 30, 2019).

Rathmann, R. (Presenter & Author), Grand Opening of History of Beef Cattle Breeds Exhibit, "The History of Beef Cattle Breeds," National Ranching Heritage Museum, Lubbock, TX. (January 22, 2019).

Rathmann, R. (Presenter Only), TEYS Australia Leadership Tour, "Sorting Feedlot Cattle with Carcass Ultrasound," TEYS Australia, Texas Tech. (January 8, 2019).

Rathmann, R. (Presenter Only), TEYS Australia Leadership Tour, "Carcass Ultrasound Applications in the Feedlot Sector," TTU. (January 7, 2019).

Rathmann, R. (Panelist), International Association of Fairs and Expositions Annual Conference, "Expectations and Recommendations of Professional Livestock Judges for Livestock Fair Boards," International Association of Fairs and Expositions, San Antonio, TX. (November 28, 2018).

Rathmann, R. (Presenter Only), National Collegiate Livestock Banquet, "Presentation of the 10 year National Champion Livestock Team," NAILE, Louisville, KY. (November 13, 2018).

Rathmann, R. (Presenter Only), Texas Youth Cattle Conference Panhandle Tour, "The Role of Genetics in Raising High Quality Beef," Texas Beef Council, Texas Panhandle. (July 25, 2018).

Rathmann, R. (Presenter Only), Texas 4-H Ag Ambassador Training, "Bovine Carcass Ultrasound Applications and Training," Texas 4-H, Lubbock. (July 24, 2018).

Rathmann, R. (Presenter Only), TPPA Youth Leadership Tour, "Comparative Reproductive Anatomy and Artificial Insemination of Swine," Texas Pork Producers Association, Lubbock. (June 19, 2018).

Rathmann, R. (Presenter Only), TPPA Youth Leadership Tour, "Estimated Carcass Value Determination of Live Swine," Texas Pork Producers Association, Lubbock. (June 19, 2018).

Rathmann, R. (Presenter Only), TTU International Meats School, "Overview of the U.S. Beef Industry and Feedlot Tour," TTU. (June 11, 2018).

**Contracts, Grants and Sponsored Research**

**Awarded**

Woerner, D., Sarturi, J., Crossland, W., Rathmann, R., Hales-Paxton, K., Legako, J., Bratcher, C., Johnson, B., "Modeling for genomic, blood, and microbiological markers for liver abscesses in fed beef cattle.," Sponsored by Foundation for Food & Agriculture Research., Foundation, $300,000.00. (2023 - 2024).

Bernhard, B. (Principal Investigator), Miller, M. (Lead Principal Investigator), Rathmann, R. (Principal Investigator), Brooks, J. C. (Principal Investigator), Johnson, B. (Principal Investigator), "Multi-Site, Dose Confirmation Clinical Effectiveness Study of the Carcass Leanness of Confined Finishing Cattle Administered Zilmax at 4.0, 5.4, or 6.8 grams/ton on a 90% Dry Matter Basis in a Type C Feed (Jennifer Martin, Loni Woolley and Justin Johnston)," Sponsored by Merck Animal Health, $193,747.00. (October 1, 2014 - September 30, 2016).

Bernhard, B. (Principal Investigator), Miller, M. (Lead Principal Investigator), Rathmann, R. (Principal Investigator), Brooks, C. (Principal Investigator), Johnson, B. (Principal Investigator), "Multi-Site, Dose Confirmation Clinical Effectiveness Study of the Carcass Leanness of Confined Finishing Cattle Administered Zilmax at 4.0, 5.4, or 6.8 grams/ton on a 90% Dry Matter Basis in a Type C Feed (Jennifer Martin, Loni Woolley and Justin Johnston)," Sponsored by Merck Animal Health, $1,780,063.00. (September 1, 2014 - August 31, 2016).

Bernhard, B. (Principal Investigator), Miller, M. (Lead Principal Investigator), Rathmann, R. (Principal Investigator), Brooks, C. (Principal Investigator), Johnson, B. (Principal Investigator), "Multi-Site, Dose Confirmation Clinical Effectiveness Study of the Carcass Leanness of Confined Finishing Cattle Administered Zilmax at 4.0, 5.4, or 6.8 grams/ton on a 90% Dry Matter Basis in a Type C Feed (Jennifer Martin, Loni Woolley and Justin Johnston)," Sponsored by Merck Animal Health, $70,000.00. (September 1, 2014 - December 31, 2014).

Rathmann, R. (Lead Principal Investigator), "Evaluation of the Heat Stress Response in Black Hided Cattle Treated with Zilpaterol Hydrochloride During the Finishing Phase," Sponsored by Merck Animal Health, $106,887.00. (July 2, 2013 - July 31, 2014).

Miller, M. (Lead Principal Investigator), Rathmann, R. (Principal Investigator), Brooks, C. (Principal Investigator), "Consumer Hedonic Evaluation of Steaks Aged for 14 or 21 D Postmortem from High Quality, Black-Hided British Finishing Steers Fed Zilpaterol Hydrochloride, Ractopamine Hydrochloride, or no B-AA," Sponsored by Merck Animal Health, $98,640.00. (May 13, 2013 - July 31, 2014).

**Pending**

Crossland, W. (Lead Principal Investigator), Rathmann, R. (Lead Principal Investigator), Machado, V. (Principal Investigator), Henry, D. (Principal Investigator), "Characterizing the effect of injectable melatonin on humoral and cellular immune responses of beef calves during weaning and vaccination," Sponsored by Texas Cattle Feeders Association, Foundation, $14,003.00.

**In Development**

Lewis, K. (Lead Principal Investigator), Mitchell, D. (Principal Investigator), Rathmann, R. (Principal Investigator), "Sustainable Agricultural Intensification and Enhancement through Utilization of Regenerative Agricultural Management Practices," Sponsored by USDA AFRI SAS, Federal, $10,000,000.00.

**Intellectual Contributions in Submission**

**Journal Article, Professional Journal**

Miller, M., Crownover, R., Garmyn, A., Rathmann, R., Polkinghorne, R., Bernhard, B. The Effects of Hot - vs. Cold-boning on eating quilty of New Zealand Grass Fed Beef. *Meat and Muscle Biology, 1*, 207-217.

m, M. F., Crownover, R. D., Garmyn, A. J., Polkinghorne, R. J., Rathmann, R. J., Bernhard, B. C. The Effects of Hot - vs. Cold-boning on eating quilty of New Zealand Grass Fed Beef. *Meat and Muscle Biology*(1), 207-217.

Miller, M. F., Brooks, J. C., Lucherk, L. W., O'Quinn, T. G., L, J. F., Rathmann, R. J. Consumer and trained panel evaluation of beef strip steaks of varying marbling and enhancement levels cooked to three degrees of doneness.. *Meat Science*(122), 145-154.

Miller, M. F., Knobel-Graves, S. M., Brooks, J. C., Johnson, B. J., Starkey, J. D., Beckett, J. M., Hodgen, J. M., Hutcheson, J. P., Streeter, M. N., Thomas, C. L., Rathmann, R. J., Garmyn, A. J. Effect of vitamin D3, zilpaterol hydrochloride supplementiation, and postmortem aging on shear force measurents of three muscles in finishing beef steers.. *Jounal of Animal Science*(94), 2637-2647.

**Research Interests**

**SERVICE**

**Department Service**

Committee Member, Animal Genomics Assistant/Associate Professor Committee. (December 2021 - Present).

Faculty Advisor, Beef Unit Faculty Advisor. (January 2009 - Present).

Committee Member, Beef Center Unit Manager. (March 1, 2019 - May 1, 2019).

Committee Member, Animal Science Full-time Instructor Search Committee. (October 2018 - April 2019).

Committee Member, Thornton Chair Search Committee. (September 2018 - February 2019).

**Public Service**

Program Coordinator, American Shorthorn Association, Abilene, TX. (June 17, 2020 - Present).

**Service/Performance Partnerships**

Lallemand – TTU Beef Short Course / 2023, Relationship Development, Technical or Expert Assistance, Reception of national Lallemand Animal Nutrition staff (Veterinarians, Agronomists, and Animal Scientists). This event combined three days, in which meetings/discussions, practical demonstrations, and a tour at the New Deal Research and Education Center (NDREC), in which detailed description of activities performed in the center was provided, as well as update of ongoing research efforts., California. (August 1, 2023 - August 2023).

International Delegation Industry Overview\_University of Queensland - Australia, Relationship Development, Technical or Expert Assistance, Reception of international undergraduate students (Major: Animal Science; Agronomy, and Veterinary Medicine) and faculty from Australia (University of Queensland). Events like this usually comprehend a full week of presentations mixed with industry tours (full agenda is available upon request). In addition, a tour to the New Deal Research and Education Center (NDREC) is given, in which detailed description of activities performed in the center, as well as update of ongoing research efforts are provided., Texas. (June 23, 2019 - June 2019).

Teys Australia Leadership Course, Noncredit Classes and Programs, Technical or Expert Assistance, Weekly online webinars with Teys Australia covering Meat Science 101-type topics, followed up by a 2 week visit to the USA with beef processing tours and lectures/hands-on labs., Colorado. (October 2, 2017 - January 2019).

International Meats School, Relationship Development, Technical or Expert Assistance, Texas. (June 11, 2018 - June 2018).

International Delegation Industry Overview\_University of Queensland - Australia, Relationship Development, Technical or Expert Assistance, Reception of international undergraduate students (Major: Animal Science; Agronomy, and Veterinary Medicine) and faculty from Australia (University of Queensland). Events like this usually comprehend a full week of presentations mixed with industry tours (full agenda is available upon request). In addition, a tour to the New Deal Research and Education Center (NDREC) is given, in which detailed description of activities performed in the center, as well as update of ongoing research efforts are provided., Texas. (June 26, 2017 - June 2017).

Short Course\_Producing High Quality Beef\_Phibro, Relationship Development, Technical or Expert Assistance, Reception of international consultants (Veterinarians, Agronomists, and Animal Scientists) and beef producers (feedlots and ranchers) from Brazil, Australia, Argentina, and South Africa. This event combined two days, in which meetings/discussions, practical demonstrations, and a tour at the New Deal Research and Education Center (NDREC), in which detailed description of activities performed in the center was provided, as well as update of ongoing research efforts., Texas. (April 1, 2017 - April 2017).

International Delegation Industry Overview\_University of Queensland - Australia, Relationship Development, Technical or Expert Assistance, Reception of international undergraduate students (Major: Animal Science; Agronomy, and Veterinary Medicine) and faculty from Australia (University of Queensland). Events like this usually comprehend a full week of presentations mixed with industry tours (full agenda is available upon request). In addition, a tour to the New Deal Research and Education Center (NDREC) is given, in which detailed description of activities performed in the center, as well as update of ongoing research efforts are provided., Texas. (July 7, 2016 - July 2016).

Research facilities tour to national and international community visitors\_Cargill Brazilian Delegation, Relationship Development, Technical or Expert Assistance, Reception of international consultants (Veterinarians, Agronomists, and Animal Scientists) and beef producers (feedlots and ranchers) from Brazil. Events like this usually combine a day of meetings/discussions and a tour at the New Deal Research and Education Center (NDREC), in which detailed description of activities performed in the center is provided, as well as update of ongoing research efforts., Texas. (June 27, 2016 - June 2016).

**GENERAL**

**Consulting**

Nonprofit, Nebraska State Fair, Grand Island, NE. (August 31, 2019 - September 1, 2019).

Nonprofit, Utah County, Spanish Fork, UT. (August 15, 2019 - August 16, 2019).

Nonprofit, Illinois State Fair, Springfield, IL. (August 8, 2019 - August 9, 2019).

Nonprofit, American Simmental Association, Louisville, KY. (July 25, 2019 - July 26, 2019).

Nonprofit, Jackson County Fair, Medford, OR. (July 9, 2019 - July 12, 2019).

Nonprofit, Coleman County Junior Livestock Show, Coleman, TX. (June 2, 2019).

Nonprofit, Ohio Beef Expo, Columbus, OH. (March 17, 2019).

Nonprofit, Houston Livestock Show and Rodeo, Houston, TX. (March 2, 2019).

Nonprofit, Wise County Livestock Show, Decatur, TX. (March 1, 2019).

Nonprofit, Randall County Junior Livestock Show, Canyon, TX. (January 22, 2019).

Nonprofit, Swisher County Livestock Show, Tulia, TX. (January 20, 2019).

Nonprofit, National Western Stock Show, Denver, Co. (January 17, 2019).

**Professional Memberships**

President, National Collegiate Livestock Judging Coaches Association. (2012 - 2013).